

Copyright Notice & Disclaimers

Copyright © 2000-2009 PortaOne, Inc. All rights reserved

**PortaSwitch External Systems Interfaces, May 2009
Maintenance Release 19
V1.19.1**

Please address your comments and suggestions to: Sales Department,
PortaOne, Inc. Suite #408, 2963 Glen Drive, Coquitlam BC V3B 2P7
Canada.

Changes may be made periodically to the information in this publication. Such changes will be incorporated in new editions of the guide. The software described in this document is furnished under a license agreement, and may be used or copied only in accordance with the terms thereof. It is against the law to copy the software on any other medium, except as specifically provided in the license agreement. The licensee may make one copy of the software for backup purposes. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopied, recorded or otherwise, without the prior written permission of PortaOne Inc.

The software license and limited warranty for the accompanying products are set forth in the information packet supplied with the product, and are incorporated herein by this reference. If you cannot locate the software license, contact your PortaOne representative for a copy.

All product names mentioned in this manual are for identification purposes only, and are either trademarks or registered trademarks of their respective owners.

Table of Contents

Preface 3

1. PortaBilling100 RADIUS Interface 4

RADIUS Protocol..... 5

Required RADIUS Attributes..... 5

PortaBilling Custom Attributes..... 6

2. PortaBilling100 XML API..... 15

Overview..... 16

Establishing Authenticated Session 18

Global Methods and Types..... 19

Access to Customer Information 19

Access to Account Information..... 37

Access to DID Inventory Information 66

Access to UA Inventory Information..... 69

Access to Product Information..... 71

3. PortaUM XML API 74

Establishing an Authenticated Session 76

Global Methods and Types..... 77

Access to Voicemail Settings..... 77

Auto Attendant Configuration..... 82

Call Queue Configuration..... 88

Dial Directory Configuration..... 91

4. Appendices 95

Examples of RADIUS Communication..... 96

Example of script for PortaBilling100 SOAP communication 103

Using Service Feature Methods to Change FollowMe Settings..... 106

Definition of “Time Period” 108

Sample Script for PortaUM SOAP Communication 110

Preface

This document provides information for developers who want to interface their applications or VoIP systems with PortaBilling100.

Where to Get the Latest Version of This Guide

The hard copy of this guide is updated at major releases only, and does not always contain the latest material on enhancements occurring between minor releases. The online copy of this guide is always up to date, and integrates the latest changes to the product. You can access the latest copy of this guide at: www.portaone.com/support/documentation/

Conventions

This publication uses the following conventions:

- Commands and keywords are given in **boldface**
- Terminal sessions, console screens, or system file names are displayed in fixed width font



Caution indicates that the described action might result in program malfunction or data loss.

NOTE: Notes contain helpful suggestions about or references to materials not contained in this manual.



Timesaver means that you can save time by performing the action described in the paragraph.



Tips provide information that might help you solve a problem.

1 . PortaBilling100 RADIUS Interface

RADIUS Protocol

PortaBilling uses the RADIUS protocol as per **Remote Authentication Dial-In User Service (RADIUS), RFC 2865** and **RADIUS Accounting, RFC 2866**. By default, the PortaBilling100 RADIUS server listens on port 1812 (UDP) for authentication requests and on port 1813 (UDP) for accounting requests.

RADIUS Attributes

PortaBilling100 uses a set of Cisco RADIUS VSAs (Vendor-Specific Attributes). For more information, please refer to the **Cisco website** (http://www.cisco.com/univercd/cc/td/doc/product/access/acs_serv/vapp_dev/vsaig3.htm).

Required RADIUS Attributes

To ensure compatibility with future releases of PortaBilling, it is highly recommended that you follow the Cisco guidelines regarding which attributes must be contained in each authentication or accounting request. For more information, see:

http://www.cisco.com/univercd/cc/td/doc/product/access/acs_serv/vapp_dev/vsaig3.html

Authentication Requests

Currently, the following attributes are required for correct processing of accounting records:

Attribute	Description
NAS-IP-Address	
User-Name	
Password	
h323-conf-id	
Called-Station-Id	Only for authorization requests
h323-ivr-out	

Authentication Responses

Currently, the following standard attributes are used (A1 = authentication, A2 = authorization):

Attribute	A1	A2	Description
h323-billing-model	Y		
h323-return-code	Y	Y	

h323-currency	Y	Y	
h323-preferred-lang	Y	Y	
h323-credit-amount	Y		
h323-credit-amount	Y		
h323-redirect-number	Y		Optional

Accounting Requests

Currently, the following attributes are required for correct processing of accounting records:

Attribute	Description
NAS-IP-Address	
NAS-Port-Name	
User-Name	
Calling-Station-Id	
Called-Station-Id	
h323-setup-time	
h323-connect-time	
h323-disconnect-time	
h323-conf-id	
h323-incoming-conf-id	
h323-disconnect-cause	
h323-call-origin	
h323-call-type	
Acct-Session-Time	
Acct-Status-Type	
h323-ivr-out	

PortaBilling Custom Attributes

All custom attributes conform to the VSA syntax. Attributes received by PortaBilling are entered into the `h323-ivr-out` attribute (VSA No. 1), encoded as `name:value` pairs. Attributes sent by PortaBilling are entered into the `h323-ivr-in` attribute (VSA No. 1), encoded as `name:value` pairs. Unless otherwise specified, any custom attribute may be included only once in each request.

Attributes Sent by a RADIUS Client (Gateway) to the PortaBilling Server

PortaBilling_Session

This allows you to control an account's login session (sessions are used to prevent simultaneous logins by debit accounts). This attribute may be

used in the accounting record for a specific call leg in order to force the session to be unlocked. (For instance, to force a session unlock on the answer/VoIP call leg, instead of the customary answer/Telephony call leg).

Format:

PortaBilling_Session:<string>

Possible values:

Value	Description
nolock	Do not lock the account after the current request
unlock	Do not lock the account for the current session and unlock any other existing session for this account
relock	Lock the account for the current session and unlock any other existing session for this account
ignore	Do not set or remove any locks, and skip any lock checks

Example:

h323-ivr-out = 'PortaBilling_Session:nolock'

PortaBilling_SessionEnv

Normally, the virtual environment for a call is defined by matching the value of the NAS-IP-Addr attribute to a list of nodes defined in the system. If a single RADIUS client is supplying data for multiple virtual environments, and is unable to change the NAS-IP-Addr attribute, it is possible to pass an ID for the environment (*i_env*) in this attribute.

Format:

PortaBilling_SessionEnv:<integer>

Possible values:

The *i_env* of an existing PortaBilling environment.

Example:

h323-ivr-out = 'PortaBilling_SessionEnv:2'

PortaBilling_Ignore_Password

This allows the password check during authentication or authorization to be disabled.

Format:

PortaBilling_Ignore_Password:<YES|NO>

Possible values:

YES or NO.

Example:

h323-ivr-out = 'PortaBilling_Ignore_Password:YES'

PortaBilling_CallbackHistory

This provides information about the other (second) call leg of a call, so that the first call leg can be billed properly (e.g. “do not bill the first leg if the second leg was not connected”).

This attribute may be present multiple times in a request. Only the last occurrence is actually used, while the others are ignored.

Format:

PortaBilling_CallbackHistory: <string>

Possible values:

Value	Description
START	The first call leg was started
ATTEMPT	The callback engine attempted to establish an outgoing call for the second leg
OK	The second call leg was successfully connected

If there is no OK entry, the call leg will be billed using a special rate plan associated in the product configuration with the “CALLBACK_FAIL” access code.

Example:

```
h323-ivr-out      = 'PortaBilling_CallbackHistory:START'  
h323-ivr-out      = 'PortaBilling_CallbackHistory:ATTEMPT'  
h323-ivr-out      = 'PortaBilling_CallbackHistory:OK'
```

PortaBilling_AccessCode (formerly PortaBilling_Original_CLD)

An access code for selecting a specific rate plan within a product. Although originally used to pass the “IVR access number” to billing, it may contain any string (e.g. “FIRSTCALL”). For Quantum compatibility, this attribute also has the synonym ACCESSCODE.

Format:

PortaBilling_AccessCode: <string>
PortaBilling_Original_CLD: <string>

Possible values:

Any string. The value passed will be compared to the values entered in the product’s accessibility (case-sensitively).

Example:

```
h323-ivr-out      = 'PortaBilling_AccessCode:18001234567'
```

PortaBilling_Original_DNIS

This replaces the value of the Called-Station-Id attribute (i.e. the destination phone number used for call rating).

Format:

PortaBilling_Original_DNIS:<value>

where the value is a semicolon-separated list of name:value pairs.

Possible values:

E.164 phone number (a sequence of digits, * and/or # signs).

Example:

h323-ivr-out = 'PortaBilling_Original_DNIS:19001234567'

PortaBilling_RestoreCacheLevel

This controls how the billing engine uses the account information fetched during the authorization process for a request, in order to facilitate the processing of other requests. Its most common application is to disable this information for re-use, if for some reason information from the current request should not be applied to other call legs (e.g. in callback scripts).

Format:

PortaBilling_RestoreCacheLevel:<integer>

Possible values:

Value	Description
-1	Disable caching and reuse of account information.
0	Use the default policy.

Example:

h323-ivr-out = 'PortaBilling_RestoreCacheLevel:-1'

PortaBilling_Notify

A generic attribute used to notify the billing engine about various conditions related to a call.

Format:

PortaBilling_Notify:<value>

where the value is a semicolon-separated list of name:value pairs.

Possible values:

Callback related

Used to notify the billing engine about the other call leg related to this one. For more details about double-CLD authorization, see the

[PortaCallback User Guide](#).

Name	Description
another_cld	Called number (DNIS) on the other call leg for “double-CLD” authorization.

another_username	Username (account ID) for authorization of the other call leg; should be provided even if identical to Username in the current request.
another_orig_clid	Access code for looking up the rate plan to authorize the other call leg.
in_progress	Number of seconds already connected on the other call leg.

Example:

```
h323-ivr-out =
'PortaBilling_Notify:tcl_call=2;another_username=1004391648;another_clid=15149615664'
```

Attributes Sent by the PortaBilling Server to a RADIUS Client (Gateway)

Attribute	A1	A2	Description
DURATION		Y	
Tariff	Y	Y	
available-funds	Y		
h323-preferred-lang	Y	Y	
h323-credit-amount	Y		
h323-credit-time		Y	
PortaBilling_UserName	Y	Y	
PortaBilling_AuthCLD		Y	
PortaBilling_AccessCode	Y	Y	
PortaBilling_AccountBalance	Y		
PortaBilling_CustomerBalance	Y		
PortaBilling_CustomerCreditLimit	Y		
PortaBilling_CustomerCreditLimitThreshold	Y		
BalanceThreshold	Y		
PortaBilling_ProductBreakage	Y		
PortaBilling_No_Disconnect_Warning		Y	

DURATION

This specifies the real allowed maximum call duration (in seconds), which may differ from the announced credit time if billing tricks are applied.

Format:

```
DURATION:<integer>
```

Possible values:

Positive integer (number of seconds).

Example:

```
h323-ivr-in = 'DURATION:320'
```

Tariff

The name of the rate plan applied to the account within this session.

Format:

Tariff:<string>

Possible values:

Positive integer (number of seconds).

Example:

```
h323-ivr-in      = 'Tariff:ABC prepaid'
```

Available-funds

For debit accounts, this is equal to the h323-credit-amount. For credit accounts, this returns the actual amount of available funds (the difference between the credit limit and the current balance with respect to the credit limits for the individual account and customer).

Format:

available-funds:<decimal>

Possible values:

Any positive number formatted with two decimal places; a dot (.) is used as the decimal separator.

Example:

```
h323-ivr-in      = 'available-funds:124.78'
```

PortaBilling_UserName

The account ID to be used for billing this call. The RADIUS client **must** supply this value as the `User-Name` (or, alternatively, in `h323-ivr-out=PortaBilling_UserName`) attribute value in the accounting records for all call legs (incoming and outgoing).

Format:

PortaBilling_UserName:<value>

Possible values:

A non-empty string identifying an account in PortaBilling.

Example:

```
h323-ivr-in      = 'PortaBilling_UserName:16051233355'
```

PortaBilling_AuthCLD

The string used by PortaBilling to match the corresponding rate code/destination during authorization of an account, instead of the `Called-Station-Id` (e.g. when a customer is to be billed according to a

special rate such as VOICEVPN, rather than according to the actual number dialed). The RADIUS client **must** supply this value as the h323-ivr-out=PortaBilling_AuthCLD attribute value in the accounting records for all outgoing legs of this call.

Format:

PortaBilling_AuthCLD:<value>

Possible values:

A non-empty string, usually a destination number in e.164 format.

Example:

```
h323-ivr-in      = 'PortaBilling_AuthCLD:18001233355'
```

PortaBilling_AccessCode

The string actually used by PortaBilling to match the corresponding accessibility entry and tariff. NAS should copy this value into all future call accounting requests as h323-ivr-out=PortaBilling_AccessCode, in order to apply the same properties during billing.

Format:

PortaBilling_AccessCode:<value>

Possible values:

A non-empty string, the same as for h323-ivr-out=PortaBilling_AccessCode.

Example:

```
h323-ivr-in      = 'PortaBilling_AccessCode:18001234567'
```

PortaBilling_AccountBalance

The current amount of the account's balance in PortaBilling.

Format:

PortaBilling_AccountBalance:<value>

Possible values:

A number with a precision of five decimal places.

Example:

```
h323-ivr-in      = 'PortaBilling_AccountBalance:13.20000'
```

PortaBilling_CustomerBalance

The current amount of the customer's balance in PortaBilling.

Format:

PortaBilling_CustomerBalance:<value>

Possible values:

A number with a precision of five decimal places.

Example:

```
h323-ivr-in      = 'PortaBilling_CurstomerBalance:13.20000'
```

PortaBilling_CustomerCreditLimit

The current amount of the customer's credit limit in PortaBilling.

Format:

```
PortaBilling_CustomerCreditLimit:<value>
```

Possible values:

A number with a precision of five decimal places.

Example:

```
h323-ivr-in      = 'PortaBilling_CustomerCreditLimit:13.00000'
```

PortaBilling_CustomerCreditLimitThreshold

The current amount of the customer's credit limit threshold in PortaBilling. Note that the relative threshold limit is converted into an actual currency amount.

Format:

```
PortaBilling_CustomerCreditLimitThreshold:<value>
```

Possible values:

A number with a precision of five decimal places.

Example:

```
h323-ivr-in      =  
'PortaBilling_CustomerCreditLimitThreshold:12.00000'
```

BalanceThreshold

Indicates that the customer's balance warning threshold has been reached.

Format:

```
BallanceThreshold:<value>
```

Possible values:

YES

Example:

```
h323-ivr-in      = 'BallanceThreshold:YES'
```

PortaBilling_ProductBreakage

The breakage amount of the account's product in PortaBilling.

Format:

PortaBilling_ProductBreakage:<value>

Possible values:

A number with a precision of five decimal places.

Example:

h323-ivr-in = 'PortaBilling_ProductBreakage:0.02000'

PortaBilling_No_Disconnect_Warning

Indicates that NAS should cancel IVR/beep warnings before call session timeouts (calls will be terminated silently).

Format:

PortaBilling_No_Disconnect_Warning:<value>

Possible values:

YES

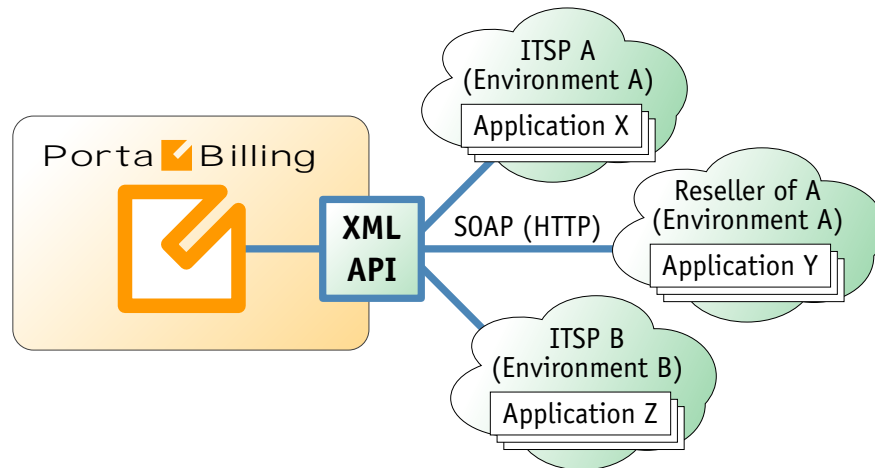
Example:

h323-ivr-in = 'PortaBilling_No_Disconnect_Warning:YES'

2. PortaBilling100 XML API

Overview

PortaBilling allows you to perform operations such as data retrieval or data modification via XML API (SOAP).



This method has several advantages:

- It is based on SOAP (Simple Object Access Protocol) and HTTPS transport, so it is accessible from any platform or operating system, and all communication between the server and clients is secure.
- The business logic embedded into the API provides integrity checks for all data modifications, and can compile records from several database tables to create a single customer information retrieval structure.
- XML API is accessible to every owner of a virtual environment or reseller. Each user's access is automatically limited to his "visible" portion of the available data, e.g. a reseller can only retrieve information about his own sub-customers or their accounts.

XML API allows users to perform select, update, insert or delete operations on entities such as customers or accounts. Each user has his own login credentials, and each operation he wishes to perform is analyzed to determine if it is possible with regard to general data integrity (e.g. a new account cannot be created without being assigned to a customer) as well as the given user's security permissions (ACLs) (e.g. while it is generally possible to create new accounts, a certain user may be prohibited from doing so).

Access to API

Proxy (server address): <https://pbslave-server.yourdomain.com:443/soap/>



Please replace the **pbslave-server.yourdomain.com** with the actual hostname of your PortaBilling100 slave server.

The SOAP interface for resellers is available on port 8444, instead of port 443.

Security

Connection to the SOAP interface is provided via HTTPS.

Authentication is done using authentication pairs (login-password). Each request to a method should contain the `auth_info` structure as the SOAP header attribute.

Error Handling

SOAP faults are used to carry error information within a SOAP message. If the actual response has a SOAP fault element as the body entry, then an error has occurred. In this case, any other fields in the response cannot be guaranteed as accurate; only the fault sub-elements should be used to identify an error. Currently, these sub-elements are:

- **faultcode** is intended for use by the client software and provides an algorithmic mechanism for identifying the fault;
- **faultstring** provides a human readable explanation of the fault, and is not intended for algorithmic processing.

WSDL

Each installation of PortaBilling100 contains its own set of WSDL documents available for download from the web server from the following URL:

<https://pbslave-server.yourdomain.com/wSDL/>.



Please replace the **pbslave-server.yourdomain.com** with the actual hostname of your PortaBilling100 slave server.

All SOAP requests are handled via an SSL connection. By default, PortaBilling installations contain a self-signed certificate which provides the means to encrypt data. However, since the authenticity of this certificate cannot be validated, you may experience some problems when connecting to an SSL site. In this case, it may be necessary to obtain a certificate from a genuine certificate authority. Another option is to generate your own certificate authority and have certificates deployed to

all SOAP clients. However, this goes beyond the scope of the present document.

Establishing Authenticated Session

URI (namespace): **https://pbslave-server.yourdomain.com/Porta/SOAP/Session**

Methods

login

Parameters: **LoginRequest**

Return value: **LoginResponse**

Checks the validity of login and password and returns session_id on success. SOAP Fault is thrown on failure.

ping

Parameters: **PingRequest**

Return value: **PingResponse**

Checks the validity of previously opened session and returns user_id on success. SOAP Fault is thrown on failure.

logout

Parameters: **LogoutRequest**

Return value: no value is returned on success

Terminates the session. You should call logout() to terminate the session properly.

Type Reference

LoginRequest structure

Property	Type	Description
login	string	User Name, as specified on web interface.
password	string	Password, as specified on web interface

LoginResponse structure

Property	Type	Description
----------	------	-------------

session_id	string, 32 chars max	ID of newly opened session.
------------	----------------------	-----------------------------

PingRequest structure

Property	Type	Description
session_id	string	ID of previously opened session

PingResponse structure

Property	Type	Description
user_id	integer	ID of user currently logged in to the specified session

LogoutRequest structure

Property	Type	Description
session_id	string	ID of previously opened session.

Global Methods and Types

Type Reference

auth_info structure

Property	Type	Description
login	string, 16 chars max	User login for PortaBilling100 web interface
password	string, 16 chars max	User password for PortaBilling100 web interface
or alternatively:		
session_id	string, 32 chars max	Unique ID of previously opened SOAP session

Access to Customer Information

URI (namespace): <https://pbslave-server.yourdomain.com/Porta/SOAP/Customer>

Key

- * - A value can be entered for this property only when inserting new records, and cannot be changed later.
- ** - This property is read-only, and its value cannot be changed.

- Mandatory properties (whose value must be entered during insertion, and cannot be set to an empty value later) are underlined.

Methods

get_customer_info

Parameters: **GetCustomerInfoRequest**

Return value: **GetCustomerInfoResponse**

This method allows an API user (administrator or reseller) to get a customer record from the database. The customer must be viewable (owned) by the user making the request.

get_customer_list

Parameters: **GetCustomerListRequest**

Return value: **GetCustomerListResponse**

This method allows an API user to get a list of customer records. The customer must be viewable (owned) by the user making the request.

validate_customer_info

Parameters: **ValidateCustomerInfoRequest**

Return value: **ValidateCustomerInfoResponse**

This method allows an API user to check if the supplied data can be used to create a new customer record or update an existing one. If successful, the completed data is returned.

add_customer

Parameters: **AddCustomerRequest**

Return value: **AddUpdateCustomerResponse**

This method allows an API user to create a new customer record using the supplied data.

update_customer

Parameters: **UpdateCustomerRequest**

Return value: **AddUpdateCustomerResponse**

This method allows an API user to update an existing customer record using the supplied data.

delete_customer

Parameters: **DeleteCustomerRequest**
Return value: **DeleteCustomerResponse**

This method allows an API user to delete an existing retail customer or reseller, provided it has no accounts, subcustomers, CDRs or managed objects.

terminate_customer

Parameters: **TerminateCustomerRequest**
Return value: **TerminateCustomerResponse**

This method allows an API user to terminate an existing retail customer or reseller.

get_service_features

Parameters: **GetCustomerServiceFeaturesRequest**
Return value: **GetCustomerServiceFeaturesResponse**

This method allows an API user to access service features data

update_service_features

Parameters: **UpdateCustomerServiceFeaturesRequest**
Return value: **UpdateCustomerServiceFeaturesResponse**

This method allows an API user to update settings for customer service features.

get_subscriptions

Parameters: **GetCustomerSubscriptionsRequest**
Return value: **GetCustomerSubscriptionsResponse**

This method allows an API user to get a list of subscription records associated with a customer.

add_subscription

Parameters: **AddCustomerSubscriptionRequest**
Return value: **AddUpdateCustomerSubscriptionResponse**

This method allows an API user to add a new subscription associated with a customer. If successful, a new subscription ID is returned.

update_subscription

Parameters: **UpdateCustomerSubscriptionRequest**
Return value: **AddUpdateCustomerSubscriptionResponse**

This method allows an API user to update an existing subscription record associated with a customer. It requires an ID number returned, for example, by the add_subscription method.

close_subscription

Parameters: **CloseDeleteCustomerSubscriptionRequest**
Return value: **CloseCustomerSubscriptionResponse**

This method allows an API user to close an existing active subscription associated with a customer. It requires an ID number returned, for example, by the add_subscription method.

delete_subscription

Parameters: **CloseDeleteCustomerSubscriptionRequest**
Return value: **DeleteCustomerSubscriptionResponse**

This method allows an API user to delete a pending subscription associated with a customer. It requires an ID number returned, for example, by the add_subscription method.

activate_subscriptions

Parameters: **ActivateCustomerSubscriptionsRequest**
Return value: **ActivateCustomerSubscriptionsResponse**

This method allows an API user to instantly activate a customer's pending subscriptions, where the start date is less than or equal to today's date (in the customer's time zone). An activation fee will be charged for each subscription, if applicable.

make_transaction

Parameters: **MakeCustomerTransactionRequest**
Return value: **MakeCustomerTransactionResponse**

This method allows an API user to adjust a customer's balance or issue a payment transaction, including e-commerce transactions.

update_payment_method

Parameters: **UpdateCustomerPaymentMethodRequest**
Return value: **UpdateCustomerPaymentMethodResponse**

This method allows an API user to assign a preferred payment method to a customer. For online payment methods, all the information required by the payment processor should be provided, and an appropriate payment processor must be set up and properly configured beforehand.

get_my_info

Parameters: **none**

Return value: **GetMyInfoResponse**

This method allows resellers to get information about their own customer info record.

get_payment_method_info

Parameters: **GetCustomerPaymentMethodInfoRequest**

Return value: **GetCustomerPaymentMethodInfoResponse**

This method allows an API user to retrieve information about the payment method (e.g. payment card info) assigned to a customer.

get_abbreviated_dialing_number_list

Parameters: **GetCustomerAbbreviatedDialingNumberListRequest**

Return value: **GetCustomerAbbreviatedDialingNumberListResponse**

This method allows an API user to retrieve an abbreviated number list for a customer.

add_abbreviated_dialing_number

Parameters:

AddUpdateCustomerAbbreviatedDialingNumberRequest

Return value:

AddUpdateCustomerAbbreviatedDialingNumberResponse

This method allows an API user to add an abbreviated dialing number for a customer.

update_abbreviated_dialing_number

Parameters:

AddUpdateCustomerAbbreviatedDialingNumberRequest

Return value:

AddUpdateCustomerAbbreviatedDialingNumberResponse

This method allows an API user to update an existing abbreviated dialing number.

[delete_abbreviated_dialing_number](#)Parameters: [DeleteCustomerAbbreviatedDialingNumberRequest](#)Return value: [DeleteCustomerAbbreviatedDialingNumberResponse](#)

This method allows an API user to remove an abbreviated dialing number.

Type Reference

[GetCustomerInfoRequest](#) structureMay include **any** of the following properties:

Property	Type	Description
i_customer	integer	Unique ID of the customer record
refnum	string, 32 chars max	Reference number (custom field)
name	string, 41 chars max	Name of the customer on the PortaBilling100 interface, unique in the environment

[GetCustomerInfoResponse](#) structure

Property	Type	Description
customer_info	CustomerInfo	Complete information about a customer; for more information, see below

[GetCustomerListRequest](#) structure

Property	Type	Description
offset	integer	Number of rows to skip at the beginning of the list
limit	integer	Number of rows to retrieve

[GetCustomerListResponse](#) structure

Property	Type	Description
customer_list	array of CustomerInfo objects	Set of customer data records

[CustomerInfo](#) structure

Property	Type	Description
i_customer *	integer	Unique ID of the customer record

refnum	string, 32 chars max	Reference number (custom field)
name	string, 41 chars max	Name of the customer on the PortaBilling100 interface, unique in the environment
i_customer_type *	integer	Either 1 (retail customer or subcustomer) or 2 (reseller)
i_parent *	integer	0 for a direct customer, or i_customer of the reseller for a subcustomer
iso_4217 *	string, 3 chars	ISO4217 code for currency in which the customer is billed
opening_balance *	number with 5 decimal places	Customer's initial balance
balance **	number with 5 decimal places	Customer's balance
i_billing_period	integer	ID for customer's billing period; refers to Billing_Period table
i_acl	integer	ID for customer's access level; refers to Access_Levels table
i_routing_plan	integer	ID for customer's routing plan; refers to Routing_Plans table
i_vd_plan	integer	ID for customer's discount plan; refers to Volume_Discount_Plans table
i_moh	integer	ID for customer's "music on hold" option; refers to Music_On_Hold table
i_customer_class	integer	ID for customer's customer class; refers to Customer_Classes table
i_tariff	integer	ID for customer's tariff; refers to Tariffs table; applies to resellers only
i_tariff_incoming	integer	ID for customer's incoming tariff; refers to Tariffs table; applies to resellers only
i_template	integer	ID for customer's invoice template; refers to Templates table; if undefined, the template

		defined in the customer class is used; if 0, invoices are not created
i_rep	integer	ID for customer's representative; refers to Representatives table
i_time_zone	integer	ID for customer's time zone; refers to Time_Zones table
i_lang	string	Code for customer's web language; refers to Locale_Languages table
service_flags	string, 32 chars max	Customer's call features settings
companyname	string, 41 chars max	Customer's company name
salutation	string, 15 chars max	Customer's salutation
firstname	string, 25 chars max	Customer's first name
midinit	string, 5 chars max	Customer's middle initial(s)
lastname	string, 25 chars max	Customer's last name
baddr1	string, 41 chars max	1st line of customer's address
baddr2	string, 41 chars max	2nd line of customer's address
baddr3	string, 41 chars max	3rd line of customer's address
baddr4	string, 41 chars max	4th line of customer's address
baddr5	string, 41 chars max	5th line of customer's address
city	string, 31 chars max	City of customer's address
state	string, 21 chars max	Province or state
zip	string, 13 chars max	Postal (zip) code
country	string, 31 chars max	Country
note	string, 41 chars max	Short note (description)
faxnum	string, 21 chars max	Fax number
cont1	string, 41 chars	Main contact person

	max	
phone1	string, 21 chars max	Main phone number
cont2	string, 41 chars max	Alternative contact person
phone2	string, 21 chars max	Alternative phone number
email	string, 99 chars max	Email address
bcc	string, 99 chars max	BCC email address
login	string, 16 chars max	Customer's login for self-care web interface
password	string, 16 chars max	Customer's password for self-care web interface
tax_id	string, 16 chars max	Tax ID
credit_limit	number with 5 decimal places	Customer's credit limit value; 0 if undefined
credit_limit_warning	string, 25 chars max	Balance threshold value for sending warnings; assigned either an absolute value or a positive relative value with a % sign
send_statistics	F, S or N	<ul style="list-style-type: none"> • F - send full statistics to customer • S - send short statistics • N - do not send statistics If undefined, the settings defined in the customer class are applied
send_invoices *	boolean, Y/N	Allow customer to receive invoices; if undefined, the settings defined in the customer class are applied
blocked	boolean, Y/N	Block customer's calls
ppm_enabled	boolean, Y/N	Allow customer to manage periodic payments on his self-care interface
drm_enabled	boolean, Y/N	Allow customer to manage dialing rules on his self-care interface
callshop_enabled	boolean, Y/N	Enable callshop features on customer's self-care interface
bp_charge_cc	boolean, Y/N	Automatically charge

		customer's credit card when billing period is closed
bill_status	enumeration	<ul style="list-style-type: none"> • O - customer is open • S - customer is suspended due to an overdue invoice • C - customer is closed due to an unpaid invoice
max_abbreviated_length	integer	Maximum allowed length of customer's abbreviated numbers; applies to retail customers only
discount_rate	number with 5 decimal places	Value of customer's subscription discount; a percentage
out_date_format	string, 16 chars max	Output format for date indication on customer's self-care interface
out_time_format	string, 16 chars max	Output format for time indication
out_date_time_format	string, 16 chars max	Output format for full date/time indication
in_date_format	string, 16 chars max	Input format for date indication
in_time_format	string, 16 chars max	Input format for time indication
creation_date *	datetime, ISO format	Date and time when the customer was created
cld_translation_rule	string	Customer's translation rule; read-only for reseller API users
cli_in_translation_rule	string	Customer's translation rule for incoming calls; read-only for reseller API users
dialing_rules	DialingRulesInfo structure	If defined, overrides the cld_translation_rule and cli_in_translation_rule values
service_features	array of ServiceFeatureInfo objects	Contains service feature values for the given customer.

DialingRulesInfo structure

Property	Type	Description
cc	string	Country code
ac	string	Area code(s)
ia	integer,	1 - Always dial the area code as part of the

	0/1	number
op	string	Prefix for accessing the outside phone network
dp	string	Prefix for domestic calls outside area code
ip		International dialing prefix
em	string	Emergency numbers; comma-separated list
ex	string	Exceptions; comma-separated list
nl	integer	Local dialing number length
ct	integer, 0/1	1 - convert ANI (CLI) for incoming calls into this dialing format

ServiceFeatureInfo structure

Property	Type	Description
name	string	Service feature name
flag_value	string	Value of corresponding service_flag item
attributes	array of ServiceAttributeInfo structures	List of service feature attributes

ServiceAttributeInfo structure

Property	Type	Description
name	string	Name of service feature
value	array of strings	Values of service attribute; if the attribute accepts a single value, only the first item will be checked/populated.

GetCustomerServiceFeaturesRequest structure

Property	Type	Description
i_customer	int	ID of customer record

GetCustomerServiceFeaturesResponse structure

Property	Type	Description
service_features	array of ServiceFeatureInfo structures	List of service features

UpdateCustomerServiceFeaturesRequest structure

Property	Type	Description
i_customer	int	ID of customer record
service_features	array of ServiceFeatureInfo	List of service features

	structures	
--	------------	--

UpdateCustomerServiceFeaturesResponse structure

Property	Type	Description
i_customer	int	ID of customer record

ValidateCustomerInfoRequest structure

Property	Type	Description
customer_info	CustomerInfo	Complete information about a customer; note: omit i_customer to check if data can be used to create a new customer record

ValidateCustomerInfoResponse structure

Property	Type	Description
customer_info	CustomerInfo	Data about a customer, see CustomerInfo above

AddCustomerRequest structure

Property	Type	Description
customer_info	CustomerInfo	Notes: i_customer will be ignored; most fields may be omitted, but iso_4217 and name are mandatory; for reseller API users, the i_customer_type and i_parent fields will be replaced with predefined values

UpdateCustomerRequest structure

Property	Type	Description
customer_info	CustomerInfo	Note: i_customer is a mandatory field; fields not requiring modification may be omitted; the iso_4217, i_customer_type, i_parent and opening_balance fields are read-only

AddUpdateCustomerResponse structure

Property	Type	Description
i_customer	integer	ID of created/modified customer record

DeleteCustomerRequest structure

Property	Type	Description
i_customer	integer	ID of customer record to be deleted

DeleteCustomerResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

GetCustomerSubscriptionsRequest structure

Property	Type	Description
i_customer	integer	ID of customer record

GetCustomerSubscriptionsResponse structure

Property	Type	Description
subscriptions	array of CustomerSubscriptionInfo structures	Set of customer subscription data records

AddCustomerSubscriptionRequest structure

Property	Type	Description
i_customer	integer	ID of customer record
subscription_info	CustomerSubscriptionInfo	Note: i_customer_subscription will be ignored; i_subscription is a mandatory field, and must be unique among all of the customer's pending and active subscriptions

UpdateCustomerSubscriptionRequest structure

Property	Type	Description
i_customer	integer	ID of customer record
i_customer_subscription	integer	ID of customer subscription record to be updated
subscription_info	CustomerSubscriptionInfo	Note: i_customer_subscription and i_subscription will be ignored

AddUpdateCustomerSubscriptionResponse structure

Property	Type	Description
i_customer_subscription	integer	ID of created/modified customer subscription record

CustomerSubscriptionInfo structure

Property	Type	Description
i_customer_subscription **	integer	Unique ID of the customer subscription record
<u>i_subscription</u> *	string, 32 chars max	ID for subscription plan; refers to the Subscriptions table
name **	string, 32 chars max	Name of subscription plan, referenced by the i_subscription attribute
discount_rate	number with 5 decimal places	Discount rate for the subscription, in percents; if missing or undefined, the discount rate defined in the customer information is applied
start_date	date, ISO format	The desired subscription activation date (defined in the customer's time zone); if missing or undefined, the subscription will start immediately after it is created; otherwise, the value should be greater than or equal to today's date (in the customer's time zone); can be updated for pending subscriptions only
activation_date **	date, ISO format	Date when the subscription was activated
billed_to **	date, ISO format	Date to which subscription charges have already been applied
finish_date	date, ISO format	Date when the subscription should be automatically canceled; if defined, must be greater than or equal to start_date
is_finished **	boolean, Y/N	Indicates whether the subscription has already been closed
int_status **	integer	Status of the subscription: <ul style="list-style-type: none"> • 0 – pending • 1 – active • 2 – closed

CloseDeleteCustomerSubscriptionRequest structure

Property	Type	Description
i_customer	integer	ID of customer record
i_customer_subscription	integer	ID of customer subscription record to be closed/deleted

CloseCustomerSubscriptionResponse structure

Property	Type	Description
i_customer_subscription	integer	ID of closed customer subscription record

DeleteCustomerSubscriptionResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

ActivateCustomerSubscriptionsRequest

Property	Type	Description
i_customer	integer	ID of customer record

ActivateCustomerSubscriptionsResponse

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

MakeCustomerTransactionRequest structure

Property	Type	Description
i_customer	integer	ID of customer record
action	One of the following: <ul style="list-style-type: none"> • Manual charge • Manual refund • Manual payment • Promotional credit • e-commerce payment • e-commerce refund • Authorization only • Capture payment 	Same as those available on the Maintenance tab of the Customer edit interface, including e-commerce transactions
amount	number with 5 decimal places	Amount by which the customer's balance will increase / decrease
visible_comment	string, 32 chars max	A comment on this transaction, visible to

		the customer in the xDR browser
internal_comment	string, 32 chars max	An internal comment on this transaction; not visible in the xDR browser, and accessible only directly from the database
suppress_notification	integer	1 – do not send email notifications to this customer, 0 – send email notifications
transaction_id	string	Applicable to capture payment and e-commerce refund transactions; must contain the ID of a previously issued authorization only / e-commerce payment transaction.

MakeCustomerTransactionResponse structure

Property	Type	Description
balance	number with 5 decimal places	Customer's modified balance

UpdateCustomerPaymentMethodRequest structure

Property	Type	Description
i_customer	integer	ID of customer record
payment_method_info	PaymentMethodInfo	Data about payment method; see below

UpdateCustomerPaymentMethodResponse structure

Property	Type	Description
i_credit_card	integer	ID of modified payment method record

PaymentMethodInfo structure

*** - Mandatory for all methods, except Cash and Cheque

**** - Mandatory for all credit card methods

Property	Type	Description
----------	------	-------------

payment_method	string	Name of payment method; one of the following: <ul style="list-style-type: none"> • Cash • Cheque • American Express • Discover • MasterCard • VISA • FirePay • Switch • Check • DirectDebitNL (pass an undefined value in order to clear the payment method setting)
name ***	string, 41 chars max	Name of cardholder (e.g. owner of bank account).
address ***	string, 41 chars max	Address of cardholder
zip ***	string, 41 chars max	Postal code of cardholder
city	string, 50 chars max	Name of city of cardholder
i_country_subdivision	integer	ID for cardholder's state; refers to Country_Subdivision table
iso_3166_1_a2	string, 2 chars	ISO 3166 two-letter country code
number ****	string, 32 chars max	Credit card number without spaces, e.g. 4444333322221111
cvv	string, 16 chars max	Card security code (CVV, CVS, etc.); applicable to all credit card methods
exp_date ****	date, ISO format	Card expiration date; applicable to all credit card methods
start_date	date, ISO format	Card activation date; applicable to the Switch method
issue_no	string, 2 chars max	Card issue number; applicable to the Switch method
account_number	string, 16 chars max	Bank account number; applicable to the Check and DirectDebitNL methods
bank_number	string, 32 chars max	Bank routing number; applicable to the Check method

GetMyInfoResponse structure

Property	Type	Description
customer_info	CustomerInfo structure	Reseller information

GetCustomerPaymentMethodInfoRequest structure

Property	Type	Description
i_customer	integer	ID of customer record

GetCustomerPaymentMethodInfoResponse structure

Property	Type	Description
payment_method_info	PaymentMethodInfo structure	PaymentMethodInfo object

AbbreviatedDialingNumberInfo structure

Property	Type	Description
number_to_dial	string	Number to dial
abbreviated_number	string	Abbreviated number
description	string	Text description for this entry
i_ab_dialing	integer	ID of abbreviated dialing number record

GetCustomerAbbreviatedDialingNumberListRequest structure

Property	Type	Description
i_customer	integer	ID of customer record

GetCustomerAbbreviatedDialingNumberListResponse structure

Property	Type	Description
abbreviated_dialing_number_list	Array of AbbreviatedDialingNumberInfo structures	Array of abbreviated dialing number objects

AddUpdateCustomerAbbreviatedDialingNumberRequest structure

Property	Type	Description
i_customer	integer	ID of

		customer record
abbreviated_dialing_number_info	AbbreviatedDialingNumberInfo structure	Abbreviated dialing number object

AddUpdateCustomerAbbreviatedDialingNumberResponse structure

Property	Type	Description
i_ab_dialing	integer	ID of abbreviated dialing number record

DeleteCustomerAbbreviatedDialingNumberRequest structure

Property	Type	Description
i_ab_dialing	integer	ID of abbreviated dialing number record
i_customer	integer	ID of customer which is the owner of the abbreviated dialing number record

DeleteCustomerAbbreviatedDialingNumberResponse structure

Property	Type	Description
success	integer	1 if success, otherwise SOAP fault.

Access to Account Information

URI (namespace): <https://pbslave-server.yourdomain.com/Porta/SOAP/Account>

Key

- * - A value can be entered for this property only when inserting new records, and cannot be changed later.
- ** - This property is read-only, and its value cannot be changed.
- Mandatory properties (whose value must be entered during insertion, and cannot be set to an empty value later) are underlined.

Methods

get_account_info

Parameters: **GetAccountInfoRequest**

Return value: **GetAccountInfoResponse**

This method allows an API user (administrator or reseller) to get an account record from the database. The account must be viewable (owned) by the user making the request.

get_account_list

Parameters: **GetAccountListRequest**

Return value: **GetAccountListResponse**

This method allows an API user to get a list of account records. The account must be viewable (owned) by the user making the request.

validate_account_info

Parameters: **ValidateAccountInfoRequest**

Return value: **ValidateAccountInfoResponse**

This method allows an API user to check if the supplied data can be used to create a new account record or update an existing one. If successful, the completed data is returned.

add_account

Parameters: **AddAccountRequest**

Return value: **AddUpdateAccountResponse**

This method allows an API user to create a new account record using the supplied data.

update_account

Parameters: **UpdateAccountRequest**

Return value: **AddUpdateAccountResponse**

This method allows an API user to update an existing account record using the supplied data.

terminate_account

Parameter: **TerminateAccountRequest**

Return value: **TerminateAccountResponse**

This method allows an API user to terminate an existing account record.

get_alias_list

Parameter: GetAccountAliasListRequest
Return value: GetAccountAliasListResponse

add_alias

Parameter: AddAccountAliasListRequest
Return value: AddAccountAliasListResponse

delete_alias

Parameter: DeleteAccountAliasListRequest
Return value: DeleteAccountAliasListResponse

get_service_features

Parameters: GetAccountServiceFeaturesRequest
Return value: GetAccountServiceFeaturesResponse

This method allows an API user to access service features data

update_service_features

Parameters: UpdateAccountServiceFeaturesRequest
Return value: UpdateAccountServiceFeaturesResponse

This method allows an API user to update settings for account service features.

get_xdr_list

Parameters: GetAccountXDRListRequest
Return value: GetAccountXDRListResponse

This method retrieves Account XDR records.

get_account_followme

Parameters: **GetAccountFollowMeRequest**
Return value: **GetAccountFollowMeResponse**

This method retrieves the follow-me settings associated with an account. Follow-me entries (numbers) are returned in the order of their priority.

update_account_followme

Parameters: **UpdateAccountFollowMeRequest**
Return value: **UpdateAccountFollowMeResponse**

This method allows an API user to update the follow-me settings associated with an account. It does not add or update follow-me entries.

`add_followme_number`

Parameters: **AddFollowMeNumberRequest**

Return value: **AddUpdateFollowMeNumberResponse**

This method allows an API user to add a new follow-me entry (number) associated with an account. If successful, a new ID number is returned. Note: the newly added number becomes the last entry in the list of the account's follow-me numbers.

`update_followme_number`

Parameters: **UpdateFollowMeNumberRequest**

Return value: **AddUpdateFollowMeNumberResponse**

This method allows an API user to update an existing follow-me entry (number) associated with an account. It requires an ID number returned, for example, by the `add_followme_number` method.

`delete_followme_number`

Parameters: **DeleteFollowMeNumberRequest**

Return value: **DeleteFollowMeNumberResponse**

This method allows an API user to delete an existing follow-me entry (number) associated with the account. It requires an ID number returned, for example, by the `add_followme_number` method.

`arrange_followme_numbers`

Parameters: **ArrangeFollowMeNumbersRequest**

Return value: **ArrangeFollowMeNumbersResponse**

This method arranges follow-me entries in a specified order.

`get_subscriptions`

Parameters: **GetAccountSubscriptionsRequest**

Return value: **GetAccountSubscriptionsResponse**

This method allows an API user to get a list of subscription records associated with an account.

`add_subscription`

Parameters: **AddAccountSubscriptionRequest**

Return value: **AddUpdateAccountSubscriptionResponse**

This method allows an API user to add a new subscription associated with an account. If successful, a new subscription ID is returned.

update_subscription

Parameters: **UpdateAccountSubscriptionRequest**

Return value: **AddUpdateAccountSubscriptionResponse**

This method allows an API user to update an existing subscription record associated with an account. It requires an ID number returned, for example, by the add_subscription method.

close_subscription

Parameters: **CloseDeleteAccountSubscriptionRequest**

Return value: **CloseAccountSubscriptionResponse**

This method allows an API user to close an existing active subscription associated with an account. It requires an ID number returned, for example, by the add_subscription method.

delete_subscription

Parameters: **CloseDeleteAccountSubscriptionRequest**

Return value: **DeleteAccountSubscriptionResponse**

This method allows an API user to delete a pending subscription associated with an account. It requires an ID number returned, for example, by the add_subscription method.

activate_subscriptions

Parameters: **ActivateAccountSubscriptionsRequest**

Return value: **ActivateAccountSubscriptionsResponse**

This method allows an API user to instantly activate an accounts' pending subscriptions, where the start date is less than or equal to today's date (in the customer's time zone). An activation fee will be charged for each subscription, if applicable.

get_call_barring_options

Parameters: **GetCallBarringOptionsRequest**

Return value: **GetCallBarringOptionsResponse**

This method allows an API user to retrieve all available options for account call barring and check their status.

update_call_barring_options

Parameters: **UpdateCallBarringOptionsRequest**

Return value: **UpdateCallBarringOptionsResponse**

This method allows an API user to update options for account call barring, i.e. enable or disable the corresponding items.

make_transaction

Parameters: **MakeAccountTransactionRequest**

Return value: **MakeAccountTransactionResponse**

This method allows an API user to adjust an account's balance or issue a payment transaction, including e-commerce transactions.

update_payment_method

Parameters: **UpdateAccountPaymentMethodRequest**

Return value: **UpdateAccountPaymentMethodResponse**

This method allows an API user to assign a preferred payment method to an account. For online payment methods, all the information required by the payment processor should be provided, and an appropriate payment processor must be set up and properly configured beforehand.

get_sip_status

Parameters: **GetSipStatusRequest**

Return value: **GetSipStatusResponse**

This method allows an API user to check if an account is currently being used by a SIP UA to register with the SIP server and retrieve registration information, such as the user agent's identification or URI.

get_ua_info

Parameters: **GetUAInfoRequest**

Return value: **GetUAInfoResponse**

This method allows an API user to get information about the UA (IP phone) assigned to account.

assign_ua

Parameters: **AssignUARequest**

Return value: **AssignUAResponse**

This method allows an API user to assign a UA to an account.

release_ua

Parameters: **ReleaseUARequest**

Return value: **ReleaseUAResponse**

This method allows an API user to release an account's UA.

move_account

Parameters: **MoveAccountRequest**

Return value: **MoveAccountResponse**

This method allows an API user to move an account to a different customer.

get_payment_method_info

Parameters: **GetAccountPaymentMethodInfoRequest**

Return value: **GetAccountPaymentMethodInfoResponse**

This method allows an API user to retrieve information about the payment method (e.g. payment card info) assigned to an account.

add_cp_condition

Parameters: **AddCPCConditionRequest**

Return value: **AddCPCConditionResponse**

This method allows an API user to add a call processing condition.

update_cp_condition

Parameters: **UpdateCPCConditionRequest**

Return value: **UpdateCPCConditionResponse**

This method allows an API user to update an existing call processing condition.

get_cp_condition_list

Parameters: **GetCPCConditionListRequest**

Return value: **GetCPCConditionListResponse**

This method allows an API user to retrieve a list of call processing conditions defined for a given customer.

add_cp_rule

Parameters: **AddCPRuleRequest**

Return value: **AddCPRuleResponse**

This method allows an API user to create a new call processing rule.

delete_cp_rule

Parameters: **DeleteCPRuleRequest**

Return value: **DeleteCPRuleResponse**

This method allows an API user to delete an existing call processing rule.

update_cp_rule

Parameters: **UpdateCPRuleRequest**

Return value: **UpdateCPRuleResponse**

This method allows an API user to update an existing call processing rule.

get_cp_rule_list

Parameters: **GetCPRuleListRequest**

Return value: **GetCPRuleListResponse**

This method allows an API user to retrieve information about defined call processing rules.

arrange_cp_rules

Parameters: **ArrangeCPRulesRequest**

Return value: **ArrangeCPRulesResponse**

This method allows an API user to redefine the order in which call processing rules are applied.

Type Reference

GetAccountInfoRequest structure

May include **any** of the following property combinations:

Property	Type	Description
i_account	integer	Unique ID of the account database record
or:		
i_batch	integer	Refers to batch record to which the account belongs
control_number	integer	Sequential number of the account in the batch
or:		

batch_name	string, 32 chars max	Name of batch to which the account belongs
control_number	integer	Sequential number of the account in the batch
or:		
id	string, 32 chars max	ID (PIN) of the account on the PortaBilling100 interface, unique in the environment

GetAccountInfoResponse structure

Property	Type	Description
account_info	AccountInfo structure	Data about an account, see AccountInfo below

GetAccountListRequest structure

Property	Type	Description
offset	integer	Number of rows to skip at the beginning of the list
limit	integer	Number of rows to retrieve
i_customer	integer	Refers to customer record to which the account belongs
i_batch	integer	Refers to batch record to which the account belongs

GetAccountListResponse structure

Property	Type	Description
account_list	array of AccountInfo objects	Set of account data records

AccountInfo structure

Property	Type	Description
i_account *	integer	Unique ID of account database record
id	string, 32 chars max	ID (PIN) of the account on the PortaBilling100 interface, unique in the environment
billing_model *	integer	-1 - Debit account type 0 - Recharge voucher account type 1 - Credit account type 2 - Alias
i_customer *	integer	Refers to customer

		record to which the account belongs
i_batch *	integer	Refers to batch record to which the account belongs
batch_name *	string, 32 chars	Name of batch to which the account belongs; this may be passed as a parameter to the add_account method instead of i_batch value; if there is no batch record in the database with the same name, a new record will be created
control_number *	integer	Sequential number of the account in the batch
iso_4217	string, 3 chars	ISO4217 code for currency in which the account is billed
opening_balance *	number with 5 decimal places	Initial balance of the account
balance **	number with 5 decimal places	Balance of the account
zero_balance_date **	date, ISO	Applicable only to debit accounts; specifies when the account has used up all its available funds
refunds **	number with 5 decimal places	Amount refunded to the account owner
non_call_related_charges **	number with 5 decimal places	Charges not directly associated with calls this account has made
issue_date *	date, ISO format	Date of issue of the account
activation_date	date, ISO format	Date from which the account is usable
expiration_date	date, ISO format	Date from which the account will become unusable
first_usage	date, ISO format	Date on which the account was used for the first time
last_usage	datetime, ISO format	Date on which the account was last used
last_recharge	datetime, ISO	Date on which the

	format	account was recharged using IVR or web self-care
life_time	integer	Relative to the activation date, the account will expire on the first usage date + lifetime days
redirect_number	string, 15 chars	Associated number
i_product	integer	ID for account's product; refers to Products table
i_acl	integer	ID for account's access level; refers to Access_Levels table
i_vd_plan	integer	ID for account's discount plan; refers to Volume_Discount_Plans table
i_moh	integer	ID for account's "music on hold" option; refers to Music_On_Hold table
ua_profile_id	integer	ID for UA profile
i_time_zone	integer	ID for account's time zone; refers to Time_Zones table
i_lang	string	Code for account's web language; refers to Locale_Languages table
iso_639_1	string, 2 chars max	Proffered IVR language
service_flags	string, 32 chars max	Account's call features settings
companyname	string, 41 chars max	Account's company name
salutation	string, 15 chars max	Account's salutation
firstname	string, 25 chars max	Account's first name
midinit	string, 5 chars max	Account's middle initial(s)
lastname	string, 25 chars max	Account's last name
baddr1	string, 41 chars max	1st line of account's address
baddr2	string, 41 chars max	2nd line of account's address
baddr3	string, 41 chars max	3rd line of account's address
baddr4	string, 41 chars max	4th line of account's address
baddr5	string, 41 chars max	5th line of account's

		address
city	string, 31 chars max	City of account's address
state	string, 21 chars max	Province or state
zip	string, 13 chars max	Postal (zip) code
country	string, 31 chars max	Country
note	string, 41 chars max	Short note (description)
faxnum	string, 21 chars max	Fax number
cont1	string, 41 chars max	Main contact person
phone1	string, 21 chars max	Main phone number
cont2	string, 41 chars max	Alternative contact person
phone2	string, 21 chars max	Alternative phone number
subscriber_email	string, 99 chars max	Subscriber's email address
login	string, 16 chars max	Account's login for self-care web interface
password	string, 16 chars max	Account's password for self-care web interface
h323_password	string, 255 chars max	VoIP password used to authenticate calls made using the account
email	string, 128 chars max	email address associated with the account
credit_limit	number with 5 decimal places	Account's credit limit value; 0 if undefined
blocked	boolean, Y/N	Block account's calls
um_enabled	boolean, Y/N	Allow the account's user to access unified messaging system
follow_me_enabled	string, 1 char	Control forward mode settings for this account: <ul style="list-style-type: none"> • N - No forwarding • Y - Follow-me • F - Advanced forwarding • U - Forward to SIP URI • C - Forward to CLD
ecommerce_enabled	boolean, Y/N	Allow the account's owner to make online payments or set up periodical payments on the account's self-care page
out_date_format	string, 16 chars max	Output format for time

		indication
out_time_format	string, 16 chars max	Output format for time indication
out_date_time_format	string, 16 chars max	Output format for full date/time indication
in_date_format	string, 16 chars max	Input format for date indication
in_time_format	string, 16 chars max	Input format for time indication
bill_status **	enumeration	<ul style="list-style-type: none"> • O - account is open • C - account is terminated
i_master_account **	Integer	The main account this alias account is associated with
password_timestamp*	datetime	Date the password was changed.
customer_name **	string	The name of the customer this account is under.
bcc*	string	BCC email address
service_features	array of ServiceFeatureInfo	Contains account service feature settings.

GetAccountServiceFeaturesRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetAccountServiceFeaturesResponse structure

Property	Type	Description
i_account	integer	ID of account record

UpdateAccountServiceFeaturesRequest structure

Property	Type	Description
i_account	int	ID of account record
service_features	array of ServiceFeatureInfo structures	List of service features

UpdateAccountServiceFeaturesResponse structure

Property	Type	Description
i_account	integer	ID of account record

ValidateAccountInfoRequest structure

Property	Type	Description
account_info	AccountInfo	Complete information about an account; note: omit i_account to check if data can be used to create a new account record

ValidateAccountInfoResponse structure

Property	Type	Description
account_info	AccountInfo	Data about an account, see AccountInfo above

AddAccountRequest structure

Property	Type	Description
account_info	Account Info	Note: i_account will be ignored; most fields may be omitted

UpdateAccountRequest structure

Property	Type	Description
account_info	AccountInfo	Note: i_account is a mandatory field; only fields requiring modification should be provided

AddUpdateAccountResponse structure

Property	Type	Description
i_account	integer	ID of created/modified account record

GetAccountFollowMeRequest structure

Property	Type	Description
i_account	integer	ID of the account record

GetAccountFollowMeResponse structure

Property	Type	Description
followme_info	FollowMeInfo structure	Follow-me settings associated with the account
followme_numbers	array of FollowMeNumberInfo structures	List of follow-me numbers associated with the account

UpdateAccountFollowMeRequest structure

Property	Type	Description
i_account	integer	ID of the account record
followme_info	FollowMeInfo structure	Follow-me settings associated with the account

UpdateAccountFollowMeResponse structure

Property	Type	Description
i_follow_me	integer	ID of the follow-me database record

FollowMeInfo structure

Property	Type	Description
i_account *	integer	ID of the account database record
i_follow_me **	integer	ID of the follow-me database record
mode	string; default is Never	Deprecated: See Using Service Feature Methods to Change FollowMe Settings in the Appendix.
sequence	string; default is Order	Order of use of numbers: <ul style="list-style-type: none"> • Order - as listed • Random - random order • Simultaneous - all at once
timeout	integer between 0 and 90	Timeout, in seconds

FollowMeNumberInfo structure

Property	Type	Description
i_account *	integer	ID of the account database record
i_follow_me **	integer	ID of the follow-me database record
i_follow_me_number **	integer	ID of the follow-me number database record

name	string, 32 chars max	Symbolic name of entry
timeout	integer between 0 and 90; default 15	Number timeout, in seconds
redirect_number	string, 32 chars max	Destination of number
period	string, 255 chars max	Period during which number can be used
period_description	string, 64K chars max	Verbal description of the period seen by interface user
active	boolean, Y/N	Defines use of follow-me number
i_follow_order **	integer	Serial number or follow-me entry, sequentially incremented within array of numbers
domain	string, 1 char	IP address of network device the call will be routed to; applies to the Advanced Forwarding and Forward to SIP URI forward mode settings
keep_original_clid	boolean, Y/N	If set to Y, the call will appear as originated by the account forwarding the call; applies to the Advanced Forwarding, Forward to SIP URI and Forward CLD forward mode settings

AddFollowMeNumberRequest structure

Property	Type	Description
i_account	integer	ID of the account record
number_info	FollowMeNumberInfo structure	Follow-me number to be added to account's follow-me entries

AddFollowMeNumberRequest structure

Property	Type	Description
i_account	integer	ID of account record
number_info	FollowMeNumberInfo structure	Follow-me number to be added to account's follow-me entries

UpdateFollowMeNumberRequest structure

Property	Type	Description
i_follow_me_number	integer	ID of follow-me number database record to be updated
number_info	FollowMeNumberInfo structure	Follow-me number to be added to account's follow-me entries

AddUpdateFollowMeNumberResponse structure

Property	Type	Description
i_follow_me_number	integer	ID of follow-me number database record

DeleteFollowMeNumberRequest structure

Property	Type	Description
i_follow_me_number	integer	ID of follow-me number database record to be deleted

DeleteFollowMeNumberResponse structure

Property	Type	Description
success	integer	<ul style="list-style-type: none"> • 1 in case of success • 0 in case of failure

ArrangeFollowMeNumbersRequest structure

Property	Type	Description
i_account	integer	ID of the account record
numbers	array of integers	List of i_follow_me_number values in the desired order; this may be partial, i.e. it is possible to swap the first two numbers, providing two values only

ArrangeFollowMeNumbersResponse structure

Property	Type	Description
success	integer	<ul style="list-style-type: none"> • 1 in case of success • 0 in case of failure

GetAccountSubscriptionsRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetAccountSubscriptionsResponse structure

Property	Type	Description
subscriptions	array of AccountSubscriptionInfo structures	Set of account subscription data records

AddAccountSubscriptionRequest structure

Property	Type	Description
i_account	integer	ID of account record
subscription_info	AccountSubscriptionInfo	Note: i_account_subscription will be ignored; i_subscription is a mandatory field, and must be unique among all of the account's pending and active subscriptions

UpdateAccountSubscriptionRequest structure

Property	Type	Description
i_account	integer	ID of account record
i_account_subscription	integer	ID of account subscription record to be updated
subscription_info	AccountSubscriptionInfo	Note: i_account_subscription and i_subscription will be ignored

AddUpdateAccountSubscriptionResponse structure

Property	Type	Description
i_account_subscription	integer	ID of created/modified account subscription record

AccountSubscriptionInfo structure

Property	Type	Description
i_account_subscription **	integer	Unique ID of the account subscription record
<u>i_subscription</u> *	string, 32 chars max	ID for subscription plan; refers to the Subscriptions table
name **	string, 32 chars max	Name of the subscription plan, referenced by the i_subscription attribute
discount_rate	number with 5 decimal places	Discount rate for the subscription, in percents; if missing or undefined, the discount rate defined in the customer information is applied
start_date	date, ISO format	The desired subscription activation date (defined in the customer's time zone); if missing or undefined, the subscription will start immediately after it is created; otherwise, the value should be greater than or equal to today's date (in the customer's time zone); can be updated for pending subscriptions only
activation_date **	date, ISO format	Date when the subscription was activated
billed_to **	date, ISO format	Date to which subscription charges have already been applied
finish_date	date, ISO format	Date when the subscription should be automatically canceled; if defined, must be greater than or equal to start_date
obligatory **	boolean, Y/N	Indicates that the subscription comes from the account's product, and so cannot be closed until the account has this product assigned to it
is_finished **	boolean, Y/N	Indicates whether the subscription has already been closed
int_status **	integer	Status of the subscription:

		<ul style="list-style-type: none"> • 0 – pending • 1 – active • 2 – closed
--	--	-------------------------------------------------------------------------------------------------------------

CloseDeleteAccountSubscriptionRequest structure

Property	Type	Description
i_account	integer	ID of account record
i_account_subscription	integer	ID of account subscription record to be closed/deleted

CloseAccountSubscriptionResponse structure

Property	Type	Description
i_account_subscription	integer	ID of closed account subscription record

DeleteAccountSubscriptionResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

ActivateAccountSubscriptionsRequest

Property	Type	Description
i_account	integer	ID of account record

ActivateAccountSubscriptionsResponse

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

CallBarringRuleInfo structure

Property	Type	Description
i_cp_condition	integer	Unique ID of call barring rule
name	string	Call barring rule name
rule_description	string	User-friendly description of this rule
state	string	'Y' if enabled, 'N' if disabled

GetCallBarringOptionsRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetCallBarringOptionsResponse structure

Property	Type	Description
options	array of CallBarringRuleInfo structures	Call barring options

UpdateCallBarringOptionsRequest structure

Property	Type	Description
i_account	integer	ID of account record
options	array of CallBarringRulesInfo structures	

UpdateCallBarringOptionsResponse

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

MakeAccountTransactionRequest structure

Property	Type	Description
i_account	integer	ID of account record
action	one of the following: <ul style="list-style-type: none"> Manual charge Manual refund Manual payment Promotional credit 	Same as those available on the Maintenance tab of the Customer edit interface, except for e-commerce transactions
amount	number with 5 decimal places	Amount by which the customer's balance will increase / decrease Note: for a manual charge transaction applied to a debit account, the amount must not exceed the account's balance
visible_comment	string, 32 chars max	A comment on this transaction visible in the xDR browser
internal_comment	string, 32 chars max	An internal comment on this transaction; not visible in the xDR browser, and accessible only directly from the

		database
suppress_notification	integer	1 – do not send email notifications to this customer, 0 – send notifications
transaction_id	string	Applicable to capture payment and e-commerce refund transactions; must contain the ID of a previously issued authorization only / e-commerce payment transaction.

MakeAccountTransactionResponse structure

Property	Type	Description
balance	number with 5 decimal places	Modified account balance

UpdateAccountPaymentMethodRequest structure

Property	Type	Description
i_account	integer	ID of account record
payment_method_info	PaymentMethodInfo	Data about payment method; see <i>Access to Customer Information</i> section above

UpdateAccountPaymentMethodResponse structure

Property	Type	Description
i_credit_card	integer	ID of modified payment method record

GetSipStatusRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetSipStatusResponse structure

Property	Type	Description
sip_status	integer	1 – online (account is used by SIP UA to register with the SIP server) 0 – offline
sip_info	SipStatusInfo	Information about SIP UA registration

SipStatusInfo structure

Property	Type	Description
username	string	Username of registered account; same as account's id attribute from AccountInfo
i_env	integer	ID of the environment to which the registrar belongs
user_agent	string	User agent identification info
contact	string	URI of the user agent which the SIP Proxy uses to contact the IP phone
domain	string	Domain of the registrar: IP address and, if port is non-standard, port number (after a colon)
callid	string	Call-id of the register request
flags	integer	1 - UA behind NAT
expires	datetime, ISO format	Date and time this registration will expire
last_modified	datetime, ISO format	Date and time the register request was received

GetUAInfoRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetUAInfoResponse structure

Property	Type	Description
i_ua	integer	ID of UA record; refers to the UA table
name	string	Name of UA
mac	string	MAC address of UA
port	integer	UA port used by this account
inventory_id	string	Inventory ID of UA
profile	string	Name of UA profile
type	string	UA type

AssignUARequest structure

Property	Type	Description
i_account	integer	ID of account record
i_ua	integer	ID of UA record
port	integer	UA port used by this account

AssignUAResponse structure

Property	Type	Description
----------	------	-------------

success	integer	1 in case of success, 0 in case of failure
---------	---------	-----------------------------------------------

ReleaseUARequest structure

Property	Type	Description
i_account	integer	ID of account record

ReleaseUAResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure

GetAccountXDRListRequest structure

Property	Type	Description
i_account	integer	ID of account record
i_service	integer	ID of Service; refers to Services table
limit	integer	Number of rows to retrieve
offset	integer	Number of rows to skip at beginning of list
from_date	integer	Fetch XDRs with bill_time starting from this date
to_date	integer	Fetch XDRs with bill_time before this date

GetAccountXDRListResponse structure

Property	Type	Description
xdr_list	array of XDRInfo structure	List of XDRs

XDRInfo structure

Property	Type	Description
i_xdr	integer	ID of XDR record
CLI	string	Caller Line Identification
CLD	string	Calling Line Identification
charged_amount	float	Amount charged
charged_quantity	integer	Units charged
country	string	Country
subdivision	string	Country Subdivision
description	string	Destination description
disconnect_cause	string	
disconnect_reason	string	
bill_status	string	Call bill status

connect_time	datetime	Call connect time
unix_connect_time	integer	Call connect time (expressed in > Unix time format - seconds since epoch)
disconnect_time	datetime	Call disconnect time
unix_disconnect_time	integer	Call disconnect time (expressed in > Unix time format - seconds since epoch)
bill_time	datetime	Call bill time

AliasInfo structure

Property	Type	Description
id	string	Alias ID
i_master_account	integer	ID of parent account record

AddAccountAliasRequest structure

Property	Type	Description
alias_info	AliasInfo structure	Alias information

AddAccountAliasResponse structure

Property	Type	Description
success	integer	1 if success, 0 if failure

GetAccountAliasListRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetAccountAliasListResponse structure

Property	Type	Description
alias_list	array of AliasInfo structures	List of aliases

DeleteAccountAliasListRequest structure

Property	Type	Description
alias_info	AliasInfo structure	Alias information

DeleteAccountAliasResponse structure

Property	Type	Description
success	integer	1 if success, 0 if failure

MoveAccountRequest structure

Property	Type	Description
i_account	integer	ID of account to be moved
i_customer	integer	ID of customer to move account to
batch_name	string	Name of the batch to put the account record into.

MoveAccountResponse structure

Property	Type	Description
old_i_account	integer	Old ID of account
i_account	integer	New ID of account
warnings	Array of Strings	Warnings accumulated during move

GetAccountPaymentMethodInfoRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetAccountPaymentMethodInfoResponse structure

Property	Type	Description
payment_method_info	PaymentMethodInfo structure	PaymentMethodInfo object

CPConditionInfo structure

Property	Type	Description
i_account	integer	ID of account record
i_cp_condition	integer	ID of call processing condition record
type	string	One of the following: <ul style="list-style-type: none"> ToNumber FromNumber TimeWindow
name	string	Name of condition
numbers	Array of CPConditionNumberInfo structures	Used by ToNumber and FromNumber condition types
time_window	CPConditionTimeWindowInfo	Used by TimeWindow condition type
is_used	string	Read-only – whether the condition is used in a rule (Y/N)

CPCConditionTimeWindowInfo structure

Property	Type	Description
period	string	Time::Period string
description	string	Description of period

CPCConditionNumberInfo structure

Property	Type	Description
number	string	Phone number
onnet	string	

CPRuleInfo structure

Property	Type	Description
i_cp_rule	integer	ID of call processing condition record
i_account	integer	ID of account record
from_number_i_cp_condition	integer	ID of FromNumber call processing condition
to_number_i_cp_condition	integer	ID of ToNumber call processing condition
time_window_i_cp_condition	integer	ID of TimeWindow call processing condition
order_number	integer	Read-only – ordinal number for this rule in the rule set
is_active	string	Whether rule is enabled (Y/N)
action	integer	Action (for how to make the correct value, see the Service Features example in the Appendix)

AddCPCConditionRequest structure

Property	Type	Description
cp_condition_info	CPCConditionInfo structure	Call processing condition structure

AddCPCConditionResponse structure

Property	Type	Description
i_cp_condition	integer	ID of call processing

		condition record
--	--	------------------

UpdateCPConditionRequest structure

Property	Type	Description
cp_condition_info	CPCConditionInfo	Call processing condition structure

UpdateCPConditionResponse structure

Property	Type	Description
i_cp_condition	integer	ID of call processing condition entry

GetCPConditionListRequest structure

Property	Type	Description
i_account	integer	ID of account record
type	string	One of the following: <ul style="list-style-type: none"> • FromNumber • ToNumber • TimeWindow

GetCPConditionListResponse structure

Property	Type	Description
cp_condition_list	Array of CPCConditionInfo	Array of CPCConditionInfo structures

AddCPRuleRequest structure

Property	Type	Description
cp_rule_info	CPRRuleInfo	Call processing rule info structure

AddCPRuleResponse structure

Property	Type	Description
i_cp_rule	integer	ID of call processing rule record

DeleteCPRuleRequest structure

Property	Type	Description
i_cp_rule	integer	ID of call processing rule record

DeleteCPRuleResponse structure

Property	Type	Description
success	integer	1 – success 0 – failed

UpdateCPRuleRequest structure

Property	Type	Description
cp_rule_info	CPRuleInfo	Call processing rule info structure

UpdateCPRuleResponse structure

Property	Type	Description
i_cp_rule	integer	ID of call processing rule record

GetCPRuleListRequest structure

Property	Type	Description
i_account	integer	ID of account record

GetCPRuleListResponse structure

Property	Type	Description
cp_condition_list	Array of CPRuleInfo	Array of CPRuleInfo structures

ArrangeCPRulesRequest structure

Property	Type	Description
i_account	integer	ID of account record
rules	Array of Integers	Array of IDs of CPRuleInfo structures

ArrangeCPRulesResponse structure

Property	Type	Description
success	integer	1 – success 0 – failed

Access to DID Inventory Information

URI (namespace): <https://pbslave-server.yourdomain.com/Porta/SOAP/DID>

Methods

[get_vendor_batch_list](#)

Parameters: [GetVendorBatchListRequest](#)

Return value: [GetVendorBatchListResponse](#)

This method allows an API user (administrator or reseller) to get a list of DID vendor batches filtered by various parameters. The DID inventory must be accessible to the user making the request. Only those batches containing DID numbers owned by the user will be returned.

[get_number_list](#)

Parameters: [GetDIDNumberListRequest](#)

Return value: [GetDIDNumberListResponse](#)

This method allows an API user to get a list of DID numbers filtered by various parameters.

[get_number_info](#)

Parameters: [GetDIDNumberInfoRequest](#)

Return value: [GetDIDNumberInfoResponse](#)

This method allows an API user to get a DID number record from the database.

[reserve_number](#)

Parameters: [ReserveDIDNumberRequest](#)

Return value: [ReserveDIDNumberResponse](#)

This method allows an API user to reserve a DID number for future use. The reserved field will be filled with the current date and time.

[release_number](#)

Parameters: [ReleaseDIDNumberRequest](#)

Return value: [ReleaseDIDNumberResponse](#)

This method allows an API user to release a previously reserved DID number.

Type Reference

GetVendorBatchListRequest structure

Property	Type	Description
country	string	ISO 3166 two-letter country code
area_code	string	Search pattern for area code
area_code_description	string	Search pattern for area code description
owner_batch	integer	ID of owner batch record; the list will include only those vendor batches containing DID numbers included in this particular owner batch
reserve_term	integer	Number of seconds to check for reserved status; the list will include only those vendor batches containing DID numbers reserved more than reserve_term seconds ago (or were not reserved at all)
limit	integer	Number of rows to retrieve
offset	integer	Number of rows to skip at beginning of list

GetVendorBatchListResponse structure

Property	Type	Description
vendor_batch_list	array of VendorBatchInfo objects	Set of vendor batch records

VendorBatchInfo structure

Property	Type	Description
i_dv_batch	integer	ID of vendor batch record
name	string	Name of vendor batch
country	string	ISO 3166 two-letter country code
area_code	string	Area code
area_code_description	string	Area code description

GetDIDNumberListRequest structure

Property	Type	Description
number	string	Search pattern for DID number

owner_batch	integer	ID of owner batch record for looking up numbers
country	string	ISO 3166 two-letter country code
area_code	string	Search pattern for area code
area_code_description	string	Search pattern for area code description
reserve_term	integer	Number of seconds to check for reserved status
usage	string	<ul style="list-style-type: none"> • U – used (assigned to an account) • F – not used • A – all (default value)
limit	integer	Number of rows to retrieve
offset	integer	Number of rows to skip at beginning of list

GetDIDNumberListResponse structure

Property	Type	Description
did_number_list	array of DIDNumberInfo objects	Set of DID number records

DIDNumberInfo structure

Property	Type	Description
i_did_number	integer	ID of DID number record
number	string	DID number
description	string	Description
owner_batch_name	string	Name of owner batch this number belongs to
vendor_batch_name	string	Name of vendor batch this number belongs to
reserved	datetime, ISO format	Date and time when this number was reserved
reserved_stamp	datetime, Unix timestamp	Date and time when this number was reserved
Released	datetime, ISO format	Date and time when this number was de-assigned from an account (account was terminated or its ID changed)
assigned	datetime, ISO format	Date and time when this number was assigned to an account

GetDIDNumberInfoRequest structure

Property	Type	Description
number	string	DID number

GetDIDNumberInfoResponse structure

Property	Type	Description
number_info	DIDNumberInfo object	Data for account; see DIDNumberInfo above

ReserveDIDNumberRequest structure

Property	Type	Description
number	string	DID number to reserve
reserve_term	integer	Number of seconds to check for reserved status and prevent reservation of numbers still reserved

ReserveDIDNumberResponse structure

Property	Type	Description
success	integer	1 – success 0 – failed
timestamp	Unix timestamp	Time stamp of reservation

ReleaseDIDNumberRequest structure

Property	Type	Description
number	string	DID number to release
timestamp	Unix timestamp	Time stamp of previous reservation to be checked

ReleaseDIDNumberResponse structure

Property	Type	Description
success	integer	1 – success 0 – failed

Access to UA Inventory Information

URI (namespace): <https://pbslave-server.yourdomain.com/Porta/SOAP/UA>

Methods

get_ua_list

Parameters: **GetUAListRequest**

Return value: **GetUAListResponse**

This method allows an API user (administrator or reseller) to get a list of UA devices (IP phones) in the IP phone inventory, filtered by various parameters.

add_ua

Parameters: AddUARquest

Return value: AddUAResponse

This method allows an API user to add a new UA device (IP phone) to the IP phone inventory.

delete_ua

Parameters: DeleteUARquest

Return value: DeleteUAResponse

This method allows an API user to delete a UA device, provided that it is not being used by any account.

Type Reference

GetUAListRequest structure

Property	Type	Description
name	integer	Search pattern for UA name
type	string	Search pattern for UA type
profile	string	Search pattern for UA profile
description	string	Search pattern for UA description
mac	string	Search pattern for UA MAC address
inventory_id	string	Search pattern for UA inventory ID
usage	string	<ul style="list-style-type: none"> • U – used • F – not used • A – all (default value)
limit	integer	Number of rows to retrieve
offset	integer	Number of rows to skip at beginning of list

GetUAListResponse structure

Property	Type	Description
----------	------	-------------

ua_list	array of UAInfo objects	Set of UA records
---------	--------------------------------	-------------------

AddUARequest structure

Property	Type	Description
ua_info	UAInfo object	UA record

AddUAResponse structure

Property	Type	Description
i_ua	integer	ID of UA record

DeleteUARequest structure

Property	Type	Description
i_ua	integer	ID of UA record

DeleteUAResponse structure

Property	Type	Description
success	integer	1 if operation is successful, 0 if not

UAInfo structure

Property	Type	Description
name	integer	UA name
type	string	UA type
profile	string	UA profile name
description	string	UA description
mac	string	UA MAC address
inventory_id	string	UA inventory ID
i_ua	integer	ID of UA record
i_ua_type	integer	ID of UA type
i_customer	integer	ID of customer record (if managed by reseller)
notepad	string	UA notepad

Access to Product Information

URI (namespace): <https://pbslave-server.yourdomain.com/Porta/SOAP/Product>

Key

- * - A value can be entered for this property only when inserting new records, and cannot be changed later.
- ** - This property is read-only; its value cannot be changed.
- Mandatory properties (whose value must be entered during insertion, and cannot be set to an empty value later) are underlined.

Methods

get_product_list

Parameters: GetProductListRequest

Return value: GetProductListResponse

get_product_info

Parameters: GetProductInfoRequest

Return value: GetProductInfoResponse

Type Reference

ProductInfo structure

Property	Type	Description
<u>i_product</u>	integer	ID of product record
<u>default_i_acl</u>	integer	Which ACL should be assigned to new accounts created with this product.
<u>subscription_host</u>	string	
<u>breakage</u>	float	Used in Account Management to obtain a summary of .depleted. (practically unusable) accounts.
<u>maintenance_fee</u>	float	Amount to charge any account using this product according to the schedule defined by the maintenance period.
<u>info_url</u>	string	URL to an external website describing product features.
<u>i_vd_plan</u>	integer	ID of volume discount plan
<u>validation_module</u>	string	
<u>name</u>	string	Product name
<u>description</u>	string	Product description
<u>maintenance_effective_from</u>	date	Defines when maintenance

		fee starts to be applied.
subscription_http_referer	string	
maintenance_period	string	Defines how often to apply maintenance fee.
continue_uri	string	
hidden	string	
i_customer	integer	Managed by

GetProductListRequest structure

Property	Type	Description
i_customer	integer	ID of customer (reseller) record; if specified, the product list will be filtered by the corresponding reseller
iso_4217	string	Product currency
offset	integer	Number of rows to skip at beginning of list
limit	integer	Number of rows to retrieve

GetProductListResponse structure

Property	Type	Description
product_list	Array of ProductInfo structures	Set of product data records

GetProductInfoRequest structure

Property	Type	Description
i_product	integer	ID of product record
name	string	Name of product, or part of the name. Use % sign as wildcard.

GetProductInfoResponse structure

Property	Type	Description
product_info	ProductInfo structure	Product data record

3. PortaUM XML API

Access to API

Proxy (server address): <https://pum-server.yourdomain.com:8443/soap.fcgi>

URI (namespace): <https://pum-server.yourdomain.com/Porta/SOAP/>



Please replace the **pum-server.yourdomain.com** with the actual hostname of your PortaUM server.

Security

Connection to the SOAP interface is provided via HTTPS.

Authentication is done using authentication pairs (login-password). Each request to a method should contain the `auth_info` structure as the SOAP header attribute.

Error Handling

SOAP faults are used to carry error information within a SOAP message. If the actual response has a SOAP fault element as the body entry, then an error has occurred. In this case, the accuracy of any other fields in the response cannot be guaranteed, and you should only use the fault sub-elements to identify the error. Currently, these sub-elements are as follows:

- **faultcode** is intended for use by the client software and provides an algorithmic mechanism for identifying a fault;
- **faultstring** provides a human-readable explanation of a fault, and is not intended for algorithmic processing.

WSDL

Each PortaUM installation has its own set of WSDL documents available for download from the web server. Assuming the name of the Admin server is `pum-server.yourdomain.com`, these documents can be downloaded from:

- <https://pum-server.yourdomain.com:8443/wSDL.fcgi?get=Types.xsd>
- <https://pum-server.yourdomain.com:8443/wSDL.fcgi?get=Voicemail.xsd>
- <https://pum-server.yourdomain.com:8443/wSDL.fcgi?get=DialDirectory.xsd>
- <https://pum-server.yourdomain.com:8443/wSDL.fcgi?get=Queues.xsd>
- <https://pum-server.yourdomain.com:8443/wSDL.fcgi?get=AutoAttendant.xsd>

All SOAP requests are handled via an SSL connection. By default, PortaUM installations contain a self-signed certificate that provides the

means to encrypt data. However, since this certificate's authenticity cannot be validated, you may experience some problems when connecting to an SSL site. In that case, it may be necessary to obtain a certificate from a genuine certificate authority. Another option is to generate your own certificate authority and have certificates deployed to all SOAP clients. However, this goes beyond the scope of the present document.

Establishing an Authenticated Session

URI: <https://pum-server.yourdomain.com/Porta/SOAP/Session>

Methods

login

Parameters: **LoginRequest**

Return value: **LoginResponse**

Checks the validity of login and password and returns `session_id` on success. A SOAP fault is generated on failure.

logout

Parameters: **LogoutRequest**

Return value: **LogoutResponse**

Terminates the session. You should call `logout()` to terminate the session properly.

Type Reference

LoginRequest structure

Property	Type	Description
login	string, 32 char max	User name specified on web interface.
domain	string	Domain matched to environment that the account belongs to.
password	string, 16 chars max	Password specified on web interface.

LoginResponse structure

Property	Type	Description
session_id	string, 32 chars max	ID of newly opened session.

LogoutRequest structure

Property	Type	Description
-	-	-

LogoutResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 in case of failure.

Global Methods and Types

Type Reference

The structure below is used to pass authentication data to the SOAP method. There are two possible ways to authenticate a SOAP request: create a session and pass session_id in auth_info, or pass all the required credentials (login/domain/password) in every SOAP request.

auth_info structure

Property	Type	Description
login	string, 32 chars max	User login for PortaBilling100 web interface.
domain	string	-
password	string, 16 chars max	User password for PortaBilling100 web interface.
or alternatively:		
session_id	string, 32 chars max	Unique ID of previously opened SOAP session.

Access to Voicemail Settings

Key

- * - A value can be entered for this property only when inserting new records, and cannot be changed later.
- ** - This property is read-only, and its value cannot be changed.
- Mandatory properties (whose value must be entered during insertion, and cannot be set as an empty value later) are underlined.

URI: <https://pum-server.yourdomain.com/Porta/SOAP/Voicemail>

Methods

[get_vm_settings](#)

Parameters: [GetVMSettingsRequest](#)

Return value: [GetVMSettingsResponse](#)

This method allows an API user (account) to get general voicemail settings from the PortaUM database.

[set_vm_settings](#)

Parameters: [SetVMSettingsRequest](#)

Return value: [SetVMSettingsResponse](#)

This method allows an API user (account) to set general voicemail settings in the PortaUM database.

[get_vm_greeting](#)

Parameters: [GetVMGreetingRequest](#)

Return value: [GetVMGreetingResponse](#)

This method allows an API user (account) to get the sound prompt for a specified greeting from the PortaUM database. The sound file is returned in a MIME attachment.

[set_vm_greeting](#)

Parameters: [SetVMGreetingRequest](#)

Return value: [SetVMGreetingResponse](#)

This method allows an API user (account) to set the sound prompt for a specified greeting type. The sound file is sent in a MIME attachment.

Type Reference

[GetVMSettingsRequest](#) structure

May include **any** of the following properties:

Property	Type	Description
-	-	-

GetVMSettingsResponse structure

Property	Type	Description
vm_settings	VMSettings	Complete information about general voicemail settings.

SetVMSettingsRequest structure

May include **any** of the following properties:

Property	Type	Description
vm_settings	VMSettings	Complete information about general voicemail settings.

SetVMSettingsResponse structure

Property	Type	Description
vm_settings_saved	integer	1 in case of success.

VMSettings structure

Property	Type	Description
mode	string	Voicemail mode: <ul style="list-style-type: none"> voicemail – record a voicemail; auto_attendant – launch account-configured auto attendant.
password	string	Password for accessing voicemail via IVR.
password_ask	string	<ul style="list-style-type: none"> yes – ask for password when accessing voicemail via IVR; no – don't ask for password when accessing voicemail via IVR.
prompt_levels	string	PortaUM offers three voice prompt settings in each supported language: <ul style="list-style-type: none"> standard; extended; rapid.
announce_dt	string	Announce the date and time when each voicemail was sent. Values: <ul style="list-style-type: none"> yes;

		<ul style="list-style-type: none"> • no.
auto_play	string	<p>Auto-play new voicemail(s) when a call to voicemail is established. Values:</p> <ul style="list-style-type: none"> • yes; • no.
greetings	string	<p>Type of greeting for users wishing to leave a voicemail. Values:</p> <ul style="list-style-type: none"> • standard; • extended; • personal; • name.
fax_file	string	<p>Format for received faxes:</p> <ul style="list-style-type: none"> • multi_png; • multi_tiff; • pdf; • tiff.
ext_email	string, max. 128 chars	External email for forwarding, copying, and notifying.
ext_email_action	string	<p>Action for external email:</p> <ul style="list-style-type: none"> • none; • forward; • notify; • copy.

GetVMGreetingRequest structure

Property	Type	Description
greeting_type	string	<p>Values:</p> <ul style="list-style-type: none"> • standard; • extended; • personal; • name.

GetVMGreetingResponse structure

Property	Type	Description
filename	string	Filename of greeting attached to SOAP response in a MIME attachment.

SetVMGreetingRequest structure

Property	Type	Description
----------	------	-------------

greeting_type	string	Values: <ul style="list-style-type: none">• standard;• extended;• personal;• name
filename	string	Filename of greeting attached to SOAP request in a MIME attachment.

SetVMGreetingResponse structure

Property	Type	Description
success	integer	1 in case of success.

Auto Attendant Configuration

URI: <https://pum-server.yourdomain.com/Porta/SOAP/AutoAttendant>

Methods

[get_menu_list](#)

Parameters: **GetMenuListRequest**

Return value: **GetMenuListResponse**

This method allows an API user (account) to get a list of all configured auto attendant menus.

[update_menu](#)

Parameters: **UpdateMenuRequest**

Return value: **UpdateMenuResponse**

This method allows an API user (account) to update the settings of a separate auto attendant menu.

[create_menu](#)

Parameters: **CreateMenuRequest**

Return value: **CreateMenuResponse**

This method allows an API user (account) to create an auto attendant menu.

[del_menu](#)

Parameters: **DelMenuRequest**

Return value: **DelMenuResponse**

This method allows an API user (account) to delete an auto attendant menu.

[set_menu_prompt](#)

Parameters: **SetMenuPromptRequest**

Return value: **SetMenuPromptResponse**

This method allows an API user (account) to set (record) separate prompt for selected auto attendant menu. The sound file is sent in a MIME attachment to the SOAP request.

get_menu_prompt

Parameters: **GetMenuPromptRequest**

Return value: **GetMenuPromptResponse**

This method allows an API user (account) to get a separate prompt from the selected auto attendant menu. The sound file is sent in a MIME attachment to the SOAP request.

get_menu_transition_list

Parameters: **GetMenuTransitionListRequest**

Return value: **GetMenuTransitionListResponse**

This method allows an API user (account) to get a list of auto attendant menu transitions.

set_menu_transition

Parameters: **SetMenuTransitionRequest**

Return value: **SetMenuTransitionListResponse**

This method allows an API user (account) to set auto attendant menu transitions. The transition prompt should be sent in a MIME attachment.

get_menu_transition_prompt

Parameters: **GetMenuTransitionPromptRequest**

Return value: **GetMenuTransitionPromptResponse**

This method allows an API user (account) to get an auto attendant menu transition prompt. The prompt is sent in a MIME attachment.

GetMenuListRequest structure

Property	Type	Description
-	-	-

GetMenuListResponse structure

Property	Type	Description
menu_list	array of MenuInfo objects	List of auto attendant menus.

UpdateMenuRequest structure

Property	Type	Description
menu_info	MenuInfo	Auto attendant menu data.

UpdateMenuResponse structure

Property	Type	Description
i_menu	integer	Unique ID of updated menu record.

CreateMenuRequest structure

Property	Type	Description
menu_info	MenuInfo	Auto attendant menu data.

CreateMenuResponse structure

Property	Type	Description
i_menu	integer	Unique ID of created menu record.

DelMenuRequest structure

Property	Type	Description
i_menu	integer	Unique ID of deleted menu record

DelMenuResponse structure

Property	Type	Description
i_menu	integer	Unique ID of deleted menu database record.

MenuInfo structure

Property	Type	Description
i_menu*	integer	Unique ID of menu record (required for the update_menu and del_menu methods).
name	string, max. 64 chars	Unique within one account menu name; 'ROOT' name is reserved for the root menu, which always exists.
period	string, max. 255 chars	Period in special format (see appendix).
period_desc	string, max. 255 chars	Description of period in a form understandable by end-users.
msg_disabled_type	string	'Unavailable' prompt type – standard or recorded by user. Values: <ul style="list-style-type: none"> • standard; • custom.
msg_timeout_type	string	'Timeout' prompt type –

		standard or recorded by user. Values: <ul style="list-style-type: none"> • standard; • custom.
msg_intro_set	integer	1 if 'Intro' prompt recorded; otherwise 0.
msg_menu_set	integer	1 if 'Menu' prompt recorded; otherwise 0.
msg_disabled_set	integer	1 if 'Unavailable' prompt recorded; otherwise 0.
msg_timeout_set	integer	1 if 'Timeout' prompt recorded; otherwise 0.

SetMenuPromptRequest structure

Property	Type	Description
i_menu	integer	Unique ID of updated menu record.
prompt_type	string	Prompt type: <ul style="list-style-type: none"> • intro; • menu; • disabled; • timeout.
prompt	string	Filename of prompt sent in a MIME attachment to the SOAP request.

SetMenuPromptResponse structure

Property	Type	Description
i_menu	integer	Unique ID of updated menu record.

GetMenuPromptRequest structure

Property	Type	Description
i_menu	integer	Unique ID of menu record.
prompt_type	string	Prompt type: <ul style="list-style-type: none"> • intro; • menu; • disabled; • timeout.

GetMenuPromptResponse structure

Property	Type	Description
prompt	string	Filename of prompt sent in a

		MIME attachment to the SOAP response.
--	--	---------------------------------------

GetMenuTransitionListRequest structure

Property	Type	Description
i_menu	integer	Unique ID of menu record.

GetMenuTransitionListResponse structure

Property	Type	Description
transition_list	array of TransitionInfo objects	Set of transitions for specified auto attendant menu.

SetMenuTransitionRequest structure

Property	Type	Description
transition_info	TransitionInfo	Properties of the menu transition.

SetMenuTransitionResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 if failed.

GetMenuTransitionPromptRequest structure

Property	Type	Description
i_menu	integere	Unique ID of menu record.
event	string	Transition event; see allowed values in TransitionInfo structure.

GetMenuTransitionPromptResponse structure

Property	Type	Description
prompt	string	Filename of prompt sent in a MIME attachment to the SOAP request.

TransitionInfo structure

Property	Type	Description
event	string	Transition event. Values: '0','1','2','3','4','5','6','7','8','9','*','#','Timeout','Not Active','f'.
action	string	Performed action. Values:

		<ul style="list-style-type: none"> • Disabled – no action; • Directory – launch ‘Dial Directory’ IVR ; • Queue – launch ‘Call Queue’ IVR for queue specified in ‘target_i_queue’; • Transfer – transfer to preconfigured number specified in ‘destination’ field; • TransferE164 – transfer to E164 number specified in ‘destination’ field; • Voicemail – launch voicemail recording; • Menu – go to the auto attendant menu specified in ‘target_i_menu’; • Extension – transfer to extension dialed by user.
target_i_menu	integer	Unique ID of auto attendant menu record.
target_i_queue	integer	Unique ID of call queue record.
destination	string, max. 32 chars	Destination for ‘Transfer’, ‘TransferE164’ action.
play_prompt	string	Play or do not play user-recorded prompt before action. Value: <ul style="list-style-type: none"> • Y • N
prompt_set	integer	1 if user-recorded prompt set.
prompt	string	Filename for user-recorded prompt sent in a MIME attachment (only for the set_menu_transition method).

Call Queue Configuration

URI: <https://pum-server.yourdomain.com/Porta/SOAP/Queues>

Methods

[get_queue_list](#)

Parameters: [GetQueueListRequest](#)

Return value: [GetQueueListResponse](#)

This method allows an API user (account) to get a list of all configured call queues.

[create_queue](#)

Parameters: [CreateQueueRequest](#)

Return value: [CreateQueueResponse](#)

This method allows an API user (account) to create a call queue with user-recorded MOH attached to the SOAP request via a MIME attachment.

[update_queue](#)

Parameters: [UpdateQueueRequest](#)

Return value: [UpdateQueueResponse](#)

This method allows an API user (account) to update call queue data and set a user-recorded MOH attached to the SOAP request via a MIME attachment.

[get_queue](#)

Parameters: [GetQueueRequest](#)

Return value: [GetQueueResponse](#)

This method allows an API user (account) to get call queue data with MOH sent via a MIME attachment.

[del_queue](#)

Parameters: [DelQueueRequest](#)

Return value: [DelQueueResponse](#)

This method allows an API user (account) to delete a call queue.

GetQueueListRequest structure

Property	Type	Description
-	-	-

GetqueueListResponse structure

Property	Type	Description
menu_list	array of QueueInfo objects	List of call queues.

CreateQueueRequest structure

Property	Type	Description
queue_info	QueueInfo	Call queue data.

CreateQueueResponse structure

Property	Type	Description
i_queue	integer	Unique ID of call queue record.

UpdateQueueRequest structure

Property	Type	Description
queue_info	QueueInfo	Call queue data.

UpdateQueueResponse structure

Property	Type	Description
i_queue	integer	Unique ID of call queue record.

GetQueueRequest structure

Property	Type	Description
i_queue	integer	Unique ID of call queue record.

GetQueueResponse structure

Property	Type	Description
queue_info	QueueInfo	Call queue data.

DelQueueRequest structure

Property	Type	Description
i_queue	integer	Unique ID of deleted call queue record.

DelQueueResponse structure

Property	Type	Description
i_queue	integer	Unique ID of deleted call queue record.

QueueInfo structure

Property	Type	Description
queue_id*	integer	Unique ID of call queue record.
name	string, max. 64 chars	Unique call queue name (for one account).
destination	string, max. 32 chars	Destination number for call queue.
capacity	integer	Number of simultaneous calls that can be serviced by queue destination number.
average_duration	integer	Average call duration in seconds.
moh_set	integer	1 if user-recorded MOH set.
moh	string	Filename for user-recorded MOH sent in a MIME attachment (used only in the create_queue, update_queue methods).

Dial Directory Configuration

URI: <https://pum-server.yourdomain.com/Porta/SOAP/DialDirectory>

Methods

[get_dir_info](#)

Parameters: **GetDirInfoRequest**

Return value: **GetDirInfoResponse**

This method allows an API user (account) to get a list of dial directory entries and general dial directory settings.

[update_dir_info](#)

Parameters: **UpdateDirInfoRequest**

Return value: **UpdateDirInfoResponse**

This method allows an API user (account) to update general dial directory settings.

[get_dir_entry](#)

Parameters: **GetDirEntryRequest**

Return value: **GetDirEntryResponse**

This method allows an API user (account) to get a dial directory entry with prompt data sent via a MIME attachment to the SOAP response.

[del_dir_entry](#)

Parameters: **DelDirEntryRequest**

Return value: **DelDirEntryResponse**

This method allows an API user (account) to delete an entry in the dial directory.

[update_dir_entry](#)

Parameters: **UpdateDirEntryRequest**

Return value: **UpdateDirEntryResponse**

This method allows an API user (account) to update an entry in the dial directory. The entry prompt for should be sent in a MIME attachment to the SOAP request.

create_dir_entry

Parameters: **CreateDirEntryRequest**

Return value: **CreateDirEntryResponse**

This method allows an API user (account) to create a new entry in the dial directory. The entry prompt for should be sent in a MIME attachment to the SOAP request.

DirectoryInfo structure

Property	Type	Description
intro	string	Which 'intro' prompt to play: PortaUM built-in, or user-recorded. Values: <ul style="list-style-type: none"> • standard; • custom.
intro_custom	string	Filename for user-recorded prompt sent in a MIME attachment.
no_abbr_num	string	Values: <ul style="list-style-type: none"> • Y • N

DirEntryInfo structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.
active	string	Is this dial directory entry active? Values: <ul style="list-style-type: none"> • Y • N
abbreviated_number	string, max. 15 chars	Abbreviated number that can be used instead of dial directory entry matching via 'lastname'.
number_to_dial	string, max. 32 chars	Number to be dialed.
lastname	string, max. 25 chars	Last name whose first 3 letters are used to match the dial directory entry (via standard telephone keyboard mapping).
description	string, max. 64 chars	Directory entry description.
prompt_set	integer	1 if user-recorded prompt set, otherwise 0.

prompt	string	Filename for user-recorded MOH sent in a MIME attachment (only for create_dir_entry, update_dir_entry methods).
--------	--------	-----------------------------------------------------------------------------------------------------------------

GetDirInfoRequest structure

Property	Type	Description
-	-	-

GetDirInfoResponse structure

Property	Type	Description
directory_info	DirectoryInfo	Dial directory general settings.
dir_entry_list	array of DirEntryInfo objects	List of dial directory entries.

UpdateDirInfoRequest structure

Property	Type	Description
directory_info	DirectoryInfo	Dial directory general settings.

UpdateDirInfoResponse structure

Property	Type	Description
success	integer	1 in case of success, 0 if failed.

GetDirEntryRequest structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.

GetDirEntryResponse structure

Property	Type	Description
dir_entry_info	DirEntryInfo	Information about dial directory entry.

DeIDirEntryRequest structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.

DeIDirEntryResponse structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.

UpdateDirEntryRequest structure

Property	Type	Description
dir_entry_info	DirEntryInfo	Information about dial directory entry.

UpdateDirEntryResponse structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.

CreateDirEntryRequest structure

Property	Type	Description
dir_entry_info	DirEntryInfo	Information about dial directory entry.

CreateDirEntryResponse structure

Property	Type	Description
i_entry	integer	Unique ID of dial directory entry.

4 . Appendices

Examples of RADIUS Communication

Failed Login (Authentication failure)

Authentication request

```
NAS-IP-Address      = '127.0.0.102'  
User-Name           = '6502001'  
Calling-Station-Id = '6502001'  
h323-conf-id       = '01010101 00000000 00000000 00000001'  
Password            = 'test1234'  
h323-ivr-out        = 'PortaBilling_Original_CLD:01001inbound'
```

Authentication reject response

```
h323-ivr-in         = ErrorExplanation:invalid_account  
h323-return-code    = 1
```

Failed Outgoing Call (Authorization failure)

Authorization request

```
NAS-IP-Address      = '127.0.0.102'  
NAS-Port-Type       = 'Async'  
User-Name           = '02001'  
Called-Station-Id   = '160801001'  
Calling-Station-Id = '02001'  
h323-conf-id       = '01010101 00000000 00000000 00000001'  
Password            = 'test1234'  
h323-ivr-out        = 'PortaBilling_Original_CLD:160801001inbound'  
NAS-Port-Id         = '0'
```

Authorization reject response

```
h323-billing-model = 1  
h323-ivr-in         = PortaBilling_AccessCode:160801001inbound  
h323-ivr-in         = Tariff:T_SubService_1  
h323-ivr-in         = ErrorExplanation:cld_blocked  
h323-return-code    = 9  
h323-currency       = USD  
h323-preferred-lang = en
```

Successful Prepaid Card IVR Session

Authentication Request

```
NAS-IP-Address      = '164.9.9.100'  
NAS-Port-Type       = 'Async'  
User-Name           = '10086610975'  
Calling-Station-Id = '6045550193'  
Service-Type        = 'Login-User'  
h323-conf-id       = '39AE126B CD4D11DB 958E0014 1C3F6886'  
Password            = ''  
h323-ivr-out        = 'PortaBilling_Original_CLD:6045551600'  
h323-ivr-out        = 'transactionID:526267'  
NAS-Port            = '0'  
NAS-Port-Id         = 'ISDN 3/0:D:13'
```

Authentication Response

```
h323-credit-amount      = 10.00
h323-billing-model      = 1
h323-ivr-in             = Tariff:PrepaidCard
h323-ivr-in             = PortaBilling_AccountBalance:10.00000
h323-ivr-in             = PortaBilling_ProductBreakage:0.00000
h323-ivr-in             = available-funds:10.00
h323-return-code        = 0
h323-currency           = CAD
h323-preferred-lang     = en
```

Authorization Request

```
NAS-IP-Address          = '164.9.9.100'
User-Name                = '10086610975'
Called-Station-Id        = '01182623634515'
Calling-Station-Id       = '6045550193'
Service-Type             = 'Login-User'
h323-conf-id             = '39AE126B CD4D11DB 958E0014 1C3F6886'
Password                 = ''
h323-ivr-out             = 'PortaBilling_Seed:18879071672'
h323-ivr-out             = 'PortaBilling_Original_CLD:6045551600'
h323-ivr-out             = 'transactionID:526273'
```

Authorization Response

```
h323-billing-model      = 1
h323-ivr-in             = Tariff:PrepaidCard
h323-ivr-in             = PortaBilling_CLI:6045550193
h323-ivr-in             = PortaBilling_CompleteNumber:82623634515
h323-ivr-in             = PortaBilling_Auth_CLD:82623634515
h323-ivr-in             = PortaBilling_Auth_Reseller_CLD:82623634515
h323-ivr-in             = DURATION:30000
h323-return-code        = 0
h323-currency           = CAD
h323-credit-time        = 30000
h323-preferred-lang     = en
```

Accounting Request (Outgoing Call Leg)

```
NAS-IP-Address          = '164.9.9.100'
User-Name                = '10086610975'
Called-Station-Id        = '82623634515'
Calling-Station-Id       = '6045550193'
Acct-Status-Type        = 'Stop'
Service-Type             = 'Login-User'
h323-gw-id               = '5350-1.'
h323-call-origin         = 'originate'
h323-call-type           = 'VoIP'
h323-setup-time          = '00:16:18.192 PST Fri Mar 9 2007'
h323-connect-time        = '00:16:21.164 PST Fri Mar 9 2007'
h323-disconnect-time     = '00:17:31.893 PST Fri Mar 9 2007'
h323-disconnect-cause   = '10'
h323-voice-quality       = '30'
h323-conf-id             = '39AE126B CD4D11DB 958E0014 1C3F6886'
call-id                  = '4A65E46C-CD4D11DB-886EDEFB-
7AF0CBAB@164.9.9.100'
Acct-Session-Id         = '00123C60'
Acct-Input-Octets        = '7676'
Acct-Output-Octets       = '107380'
Acct-Input-Packets       = '471'
Acct-Output-Packets      = '3521'
Acct-Session-Time        = '71'
Acct-Delay-Time          = '0'
h323-incoming-conf-id   = '39AE126B CD4D11DB 958E0014 1C3F6886'
subscriber                = 'RegularLine'
session-protocol         = 'sipv2'
```

```

gw-rxd-cdn = 'ton:2,npi:1,#:6045551600'
h323-ivr-out = 'PortaBilling_Original_CLD:6045551600'
h323-ivr-out = 'PortaBilling_Seed:18879071672'
h323-remote-address = '164.9.9.101'
release-source = '1'
alert-timepoint = '00:16:19.497 PST Fri Mar 9 2007'
remote-media-address = '164.9.9.101'
gw-rxd-cgn = 'ton:2,npi:1,pi:0,si:3,#:6045550193'
gw-collected-cdn = '01182623634515T'
gw-final-xlated-cdn = 'ton:2,npi:1,#:82623634515'
gw-final-xlated-cgn = 'ton:2,npi:1,pi:0,si:3,#:6045550193'
charged-units = '0'
disconnect-text = 'normal call clearing (16)'
peer-address = '82623634515'
info-type = 'speech'
peer-id = '30'
peer-if-index = '625'
logical-if-index = '0'
codec-bytes = '20'
coder-type-rate = 'g729br8'
ontime-rv-playout = '40000'
remote-udp-port = '5060'
remote-media-udp-port = '46396'
vad-enable = 'disable'
receive-delay = '60 ms'
round-trip-delay = '60 ms'
hiwater-playout-delay = '130 ms'
lowater-playout-delay = '60 ms'
gapfill-with-prediction = '0 ms'
gapfill-with-redundancy = '0 ms'
gapfill-with-silence = '0 ms'
early-packets = '16'
late-packets = '1'
lost-packets = '0'
Acct-Authentic = 'RADIUS'

```

Accounting Request (Incoming Call Leg)

```

NAS-IP-Address = '164.9.9.100'
NAS-Port-Type = 'Async'
User-Name = '10086610975'
Called-Station-Id = '6045551600'
Calling-Station-Id = '6045550193'
Acct-Status-Type = 'Stop'
Service-Type = 'Login-User'
h323-gw-id = '5350-1.'
h323-call-origin = 'answer'
h323-call-type = 'Telephony'
h323-setup-time = '00:15:50.148 PST Fri Mar 9 2007'
h323-connect-time = '00:15:50.156 PST Fri Mar 9 2007'
h323-disconnect-time = '00:17:31.889 PST Fri Mar 9 2007'
h323-disconnect-cause = '10'
h323-voice-quality = '0'
h323-conf-id = '39AE126B CD4D11DB 958E0014 1C3F6886'
Acct-Session-Id = '00123C4F'
Acct-Input-Octets = '70420'
Acct-Output-Octets = '110624'
Acct-Input-Packets = '3521'
Acct-Output-Packets = '894'
Acct-Session-Time = '102'
Acct-Delay-Time = '0'
h323-incoming-conf-id = '39AE126B CD4D11DB 958E0014 1C3F6886'
subscriber = 'RegularLine'
gw-rxd-cdn = 'ton:2,npi:1,#:6045551600'
calling-party-category = '9'
transmission-medium-req = '0'
h323-ivr-out = 'PortaBilling_Session:unlock'
h323-ivr-out = 'Tariff:Unknown'
release-source = '1'
dsp-id = '2/4:0'
gw-rxd-cgn = 'ton:2,npi:1,pi:0,si:3,#:6045550193'

```

```

gw-collected-cdn      = '01182623634515T'
charged-units          = '0'
disconnect-text       = 'normal call clearing (16)'
peer-address          = '6045550193'
info-type             = 'speech'
peer-id               = '10'
peer-if-index         = '615'
logical-if-index      = '243'
acom-level            = '39'
coder-type-rate       = 'g729br8'
noise-level           = '4294967213'
voice-tx-duration     = '10000 ms'
tx-duration           = '97785 ms'
Acct-Authentic        = 'RADIUS'
NAS-Port              = '0'
NAS-Port-Id           = 'ISDN 3/0:D:13'

```

SIP Routing Request

Authorization Request

```

NAS-IP-Address        = '65.61.203.144'
User-Name              = '14255551108'
Called-Station-Id     = '380444903490'
Calling-Station-Id    = '14255551108'
h323-conf-id          = '7BC5C486 47F611DC B7B70011 43CD0D2C'
call-id                = '9D9F94ED24B747AD806128E45F6539060xc0a8002d'
Digest-Attributes     = 'Realm = "65.61.203.144"'
Digest-Attributes     = 'Nonce =
"5ccca2d31f1e47d2dfd66aaafd1a8efc46c1d050"'
Digest-Attributes     = 'Method = "INVITE"'
Digest-Attributes     = 'URI = "sip:380444903490@65.61.203.144"'
Digest-Attributes     = 'Algorithm = "MD5"'
Digest-Attributes     = 'User-Name = "14255551108"'
Digest-Response       = 'be888ab3a0c6fdddb2b90dc54cf7e291'
h323-remote-address   = '193.28.87.193'
h323-session-protocol = 'sipv2'
h323-ivr-out           = 'PortaBilling_Routing:SIP'
h323-ivr-out           = 'PortaBilling_AuthMethod:INVITE'
h323-ivr-out           = 'PortaBilling_Notify:rtp_same_nat=1;NAT'
h323-ivr-out           = 'PortaBilling_Seed:1058711856'
NAS-Port              = '5060'

```

Authorization Response

```

h323-ivr-in           = PortaBilling_Routing:@;g-hunt=seq
h323-ivr-in           = PortaBilling_Routing: @;g-
hunt=skip;expires=300;rtp=1;patience=20
h323-ivr-in           = PortaBilling_Routing:380444903490@216.78.43.12
h323-ivr-in           = PortaBilling_Routing:
380444903490@67.34.130.55;auth=DD1B04568F1316608E13E567B705918F7C352221
D6945914
h323-billing-model    = 0
h323-ivr-in           = PortaBilling_AccessCode:OUTGOING
h323-ivr-in           = Tariff:c Porta Internal
h323-ivr-in           = MOH:1
h323-ivr-in           = DURATION:7674
h323-ivr-in           = PortaBilling_CompleteNumber:380444903490
h323-ivr-in           = PortaBilling_CLI:14255551108
h323-return-code      = 0
h323-currency         = USD
h323-credit-time      = 7674
h323-preferred-lang   = en

```

Callback Session

First call leg authorization

```
NAS-IP-Address      = "142.179.71.220"
User-Name           = "00099900113"
Called-Station-Id   = "00099900113"
Calling-Station-Id  = "00099900113"
h323-conf-id        = "2F01F3F6 B89192B8 711B0000 1C7A0F2A "
Password            = "secret"
h323-remote-address = "193.28.87.193"
h323-ivr-out         = "PortaBilling_OriginalCLD:555333"
h323-ivr-out         = "PortaBilling_AuthMethod:INVITE"
h323-ivr-out         = "PortaBilling_Seed:4094388346"
```

Second call leg authorization

```
NAS-IP-Address      = "142.179.71.220"
User-Name           = "00099900113"
Called-Station-Id   = "00099900111"
Calling-Station-Id  = "00099900222"
h323-conf-id        = "2F01F3F6 B89192B8 711B0000 1C7A0F2A"
Password            = "secret"
h323-ivr-out         = "PortaBilling_OriginalCLD:OUT"
h323-ivr-out         = "PortaBilling_AuthMethod:INVITE"
h323-ivr-out         =
PortaBilling_Notify:another_clid=00099900113;another_orig_clid=555333;in_
progress=13"
h323-ivr-out         = "PortaBilling_Seed:4094388346"
```

Second call leg 1, accounting for failed call attempt

```
NAS-IP-Address      = 142.179.71.220
h323-call-origin    = "originate"
h323-call-type       = "VoIP"
h323-setup-time      = "11:34:20.677 GMT Fri Feb 23 2007"
User-Name           = "00099900113"
Calling-Station-Id  = "00099900113"
Called-Station-Id   = "00099900222"
h323-incoming-conf-id = "2F01F3F6 B89192B8 711B0000 1C7A0F2A"
h323-conf-id        = "11111111 B89192B8 711B0000 1C7A0F2A"
Acct-Session-Id     = "B89192B8-66BC43D89"
h323-disconnect-time = "11:34:30.677 GMT Fri Feb 23 2007"
h323-connect-time    = "11:34:30.677 GMT Fri Feb 23 2007"
h323-ivr-out         = "PortaBilling_Seed:4094388346"
h323-remote-address = "10.28.87.193"
h323-ivr-out         = "PortaBilling_OriginalCLD:OUT"
Acct-Session-Time    = 0
h323-disconnect-cause = "1C"
Acct-Status-Type     = Stop
```

Second call leg, accounting for connected call

```
NAS-IP-Address      = 142.179.71.220
h323-call-origin    = "originate"
h323-call-type       = "VoIP"
h323-setup-time      = "11:34:35.677 GMT Fri Feb 23 2007"
User-Name           = "00099900113"
Calling-Station-Id  = "00099900113"
Called-Station-Id   = "00099900222"
h323-incoming-conf-id = "2F01F3F6 B89192B8 711B0000 1C7A0F2A"
h323-conf-id        = "11111111 B89192B8 711B0000 1C7A0F2A"
Acct-Session-Id     = "B89192B8-66BC43D89"
h323-disconnect-time = "11:34:30.677 GMT Fri Feb 23 2007"
h323-connect-time    = "11:36:32.677 GMT Fri Feb 23 2007"
h323-ivr-out         = "PortaBilling_Seed:4094388346"
```

```
h323-remote-address = "10.28.87.200"
h323-ivr-out = "PortaBilling_OriginalCLD:OUT"
Acct-Session-Time = 122
h323-disconnect-cause = "0"
Acct-Status-Type = Stop
```

First call leg accounting

```
NAS-IP-Address = 142.179.71.220
h323-call-origin = "originate"
h323-call-type = "VoIP"
h323-setup-time = "11:33:38.677 GMT Fri Feb 23 2007"
User-Name = "00099900113"
Calling-Station-Id = "00099900113"
Called-Station-Id = "00099900113"
h323-ivr-out = PortaBilling_CallbackHistory:START
h323-ivr-out = PortaBilling_CallbackHistory:ATTEMPT
h323-ivr-out = PortaBilling_CallbackHistory:ATTEMPT
h323-ivr-out = PortaBilling_CallbackHistory:OK
h323-conf-id = "2F01F3F6 B89192B8 711B0000 1C7A0F2A"
Acct-Session-Id = "B89192B8-66BC43D89"
h323-disconnect-time = "11:34:18.677 GMT Fri Feb 23 2007"
h323-connect-time = "11:35:18.677 GMT Fri Feb 23 2007"
h323-ivr-out = "PortaBilling_Seed:4094388346"
h323-remote-address = "10.28.87.200"
h323-ivr-out = "PortaBilling_OriginalCLD:555333"
Acct-Session-Time = 60
h323-disconnect-cause = "0"
Acct-Status-Type = Stop
Acct-Delay-Time = 0
```

Voucher Recharge Session

Authentication (main account login) request

```
NAS-IP-Address = '127.0.0.102'
User-Name = '02001'
Calling-Station-Id = '02001'
h323-conf-id = '01010101 00000000 00000000 00000012'
Password = 'test1234'
h323-ivr-out = 'PortaBilling_Original_CLD:01inbound'
```

Authentication response

```
h323-credit-amount = 10.00
h323-billing-model = 1
h323-ivr-in = PortaBilling_AccessCode:01inbound
h323-ivr-in = Tariff:T_SubService_1
h323-ivr-in = PortaBilling_AccountBalance:10.00000
h323-ivr-in = PortaBilling_ProductBreakage:0.00000
h323-ivr-in = available-funds:10.00
h323-return-code = 0
h323-currency = USD
h323-preferred-lang = en
```

Voucher recharge request

```
NAS-IP-Address = '127.0.0.102'
User-Name = '02001'
Calling-Station-Id = '02001'
h323-conf-id = '01010101 00000000 00000000 00000012'
Password = 'test1234'
h323-ivr-out = 'PortaBilling_Original_CLD:01inbound'
```

Voucher recharge response

```
h323-credit-amount = 60.00
h323-ivr-in         = PortaBilling_AccessCode:01inbound
h323-ivr-in         = Tariff:T_SubService_1
h323-ivr-in         = PortaBilling_RechargedAmount:50.00000
h323-ivr-in         = available-funds:60.00
h323-return-code   = 0
h323-currency       = USD
h323-preferred-lang = en
```

Music Download Service Requests

Authorization Request

```
NAS-IP-Address = '192.168.100.50'
User-Name      = '0101'
Password       = 'secret'
Called-Station-Id = 'JAZZ'
h323-conf-id   = 'A5D3B74C D26411DC 98D5001D 090C82FA'
h323-ivr-out   = 'Service-Identifier:QUANTITY'
```

Authorization Response (for credit account without credit limit)

```
h323-billing-model = 0
h323-ivr-in         = Tariff:Music Account
h323-ivr-in         = PortaBilling_CompleteNumber:JAZZ
h323-ivr-in         = PortaBilling_Auth_CLD:JAZZ
h323-return-code   = 13
h323-currency       = USD
h323-preferred-lang = en
```

Authorization Response (for debit account)

```
h323-billing-model = 1
h323-ivr-in         = Tariff:Music Account
h323-ivr-in         = DURATION:10
h323-ivr-in         = PortaBilling_CompleteNumber:JAZZ
h323-ivr-in         = PortaBilling_Auth_CLD:JAZZ
h323-return-code   = 0
h323-currency       = USD
h323-credit-time   = 10
h323-preferred-lang = en
```

Accounting Request

```
NAS-IP-Address = '192.168.100.50'
User-Name      = '0101'
Called-Station-Id = 'JAZZ'
Acct-Status-Type = 'Stop'
h323-call-origin = 'originate'
h323-call-type   = 'Telephony'
h323-setup-time  = '07:18:35.965 GMT Mon Feb 6 2008'
h323-connect-time = '07:18:43.965 GMT Mon Feb 6 2008'
h323-disconnect-time = '08:11:38.965 GMT Mon Feb 6 2008'
h323-disconnect-cause = '0'
h323-conf-id     = 'A5D3B74C D26411DC 98D5001D 090C82FA'
Acct-Session-Id = 'da6b76'
Acct-Session-Time = '3175'
h323-ivr-out     = 'Service-Identifier:QUANTITY'
h323-ivr-out     = 'Used-Service-Unit:1'
```

Example of script for PortaBilling100 SOAP communication

```
#!/usr/bin/perl

use SOAP::Lite
# +trace=>'debug'
;
use Encode;
use strict;
use warnings;
use Data::Dumper;

binmode(STDOUT, 'utf8');

my $proxy_host = 'https://127.0.0.1'; # Porta-Billing Admin Server
my $proxy_port = '443';

my $login = 'pb-root';
my $password = 'pb-root';

my $uri_base = 'http://portaone.com/Porta/SOAP';
my $proxy     = "$proxy_host:$proxy_port/soap/";

my %uris = (
    'Session' => "$uri_base/Session",
    'Account' => "$uri_base/Account",
    'Customer' => "$uri_base/Customer",
);

sub fault_handler {
    my ($soap, $res) = @_;
    die "SOAP Fault: $!, " . (ref $res ? $res->faultstring
        : $soap->transport->status)
        ;
}

my $session_service = SOAP::Lite
    ->uri($uris{'Session'})
    ->proxy($proxy)
    ->on_fault(\&fault_handler)
    ;

my $customer_service = SOAP::Lite
    ->uri($uris{'Customer'})
    ->proxy($proxy)
    ->on_fault(\&fault_handler)
    ;

my $account_service = SOAP::Lite
    ->uri($uris{'Account'})
    ->proxy($proxy)
    ->on_fault(\&fault_handler)
    ;

# required to support dateTime type
$session_service->serializer()
    ->xmlschema('http://www.w3.org/2001/XMLSchema');
$customer_service->serializer()
    ->xmlschema('http://www.w3.org/2001/XMLSchema');
$account_service->serializer()
    ->xmlschema('http://www.w3.org/2001/XMLSchema');

my $LoginResponse = $session_service->login($login, $password);

my $session_id = $LoginResponse->result();

print "Logged in with session $session_id\n";
```



```
my $header = SOAP::Header->name('auth_info')
    ->value({ session_id => $session_id })
    ;

eval {
    my $GetCustomerInfoRequest = {
        i_customer => 1
    };

    my $GetCustomerInfoResponse
        = $customer_service->get_customer_info(
            $header, $GetCustomerInfoRequest
        )->result;

    if (! $GetCustomerInfoResponse->{'customer_info'}) {
        die "No customer found\n";
    }

    my $CustomerInfo = $GetCustomerInfoResponse->{'customer_info'};

    print "Customer Name: $CustomerInfo->{'name'}\n"
        . "E-Mail: $CustomerInfo->{'email'}\n"
        . "Balance: $CustomerInfo->{'balance'} "
        . $CustomerInfo->{'iso_4217'} . "\n"
        ;

    # listing accounts under this customer.

    my $has_more_accounts = 1;
    my $limit = 5;
    my $offset = 0;

ACCOUNT_LIST:
    while ($has_more_accounts) {
        my $GetAccountListRequest = {
            i_customer => 1,
            limit      => $limit,
            offset     => $offset
        };

        my $GetAccountListResponse
            = $account_service->get_account_list(
                $header, $GetAccountListRequest
            )->result;

        if (! $GetAccountListResponse->{'account_list'}) {
            last ACCOUNT_LIST;
        }

        my $account_list = $GetAccountListResponse->{'account_list'};

        if (@$account_list < $limit) {
            $has_more_accounts = 0;
        }

        for my $AccountInfo (@$account_list) {
            print " Account ID: $AccountInfo->{'id'}\n"
                . "   Balance: $AccountInfo->{'balance'}"
                . " $AccountInfo->{'iso_4217'}\n"
                ;
        }

        $offset += $limit;
    }
};

if ($?) {
    print "An error occured: $@\n";
}

# logging out is required
$session_service->logout($session_id);
```

```
exit 0;
```

Using Service Feature Methods to Change FollowMe Settings

```
#!/usr/bin/perl

use strict;
use warnings;
use SOAP::Lite;
use Carp;

# Configuration block

my $uri_base = 'http://portabox.local.com/Porta/SOAP';
my $proxy_host = 'portabox.local.com';
my $proxy_port = '443';

my $login = 'pb-root';
my $password = 'pb-root';

my $i_account = 636;

# End of configuration block

my %uris = (
    Session => "$uri_base/Session",
    Account => "$uri_base/Account",
);

my $proxy = "https://$proxy_host:$proxy_port/soap/";

my $FM_REJECT = 0;
my $FM_RING = 0x1;
my $FM_FORWARD = 0x2;
my $FM_VOICEMAIL = 0x4;

my %fm_modes = (
    $FM_REJECT => 'Reject all calls',
    $FM_RING => 'Ring',
    $FM_FORWARD => 'Forward',
    $FM_VOICEMAIL => 'Voicemail',
);

sub fm_decode {
    my ($value) = @_;

    my @response_set;

    for my $fm_mode (sort keys %fm_modes) {
        if ($fm_mode & $value) {
            push(@response_set, $fm_modes{$fm_mode});
        }
    }

    my $result = join(', ', @response_set);

    return $result;
}

sub fm_encode {
    my (@values) = @_;

    my $result = 0;

    for my $value (@values) {
        if (!exists $fm_modes{$value}) {

```

```
        croak "Unknown Follow Me Mode: $value";
    }

    $result |= $value;
}

return $result;
}

sub fault_handler {
    my ($soap, $res) = @_;

    my $message = 'Unknown Error';

    if (ref ($res)) {
        $message = "Remote SOAP Fault: " . $res->faultstring();
    }
    else {
        $message = "Transport Fault: " . $soap->transport->status();
    }

    croak $message;
}

my $session_srv = SOAP::Lite
    ->uri($uris{Session})
    ->proxy($proxy)
    ->on_fault(\&fault_handler)
    ;

my $account_srv = SOAP::Lite
    ->uri($uris{Account})
    ->proxy($proxy)
    ->on_fault(\&fault_handler)
    ;

my $session_id = $session_srv->login($login, $password)->result();

print "Logged in ($login|$session_id)\n";

my $auth_info = SOAP::Header
    ->name('auth_info')
    ->value({ session_id => $session_id }
    );

my $GetAccountServiceFeaturesRequest = {
    i_account => $i_account,
};

# Current settings
my $GetAccountServiceFeaturesResponse
    = $account_srv->get_service_features(
        $auth_info,
        $GetAccountServiceFeaturesRequest,
    )->result();

my $service_features = $GetAccountServiceFeaturesResponse-
>{service_features};

my $sf_default_action;

SERVICE_FEATURE_ITEM:
for my $service_feature (@{$service_features}) {
    if ($service_feature->{name} eq 'default_action') {
        $sf_default_action = $service_feature;
        last SERVICE_FEATURE_ITEM;
    }
}

if (! $sf_default_action) {
    print "No Default Action set\n";
}
```

```

    }
    else {
        print "Default Action setting: ",
            fm_decode($sf_default_action->{flag_value}), "\n";
    }

my $UpdateAccountServiceFeaturesRequest = {
    i_account => $i_account,
    service_features => [
        {
            name => 'default_action',
            flag_value => fm_encode($FM_RING, $FM_FORWARD),
        }
    ]
};

my $UpdateAccountServiceFeaturesResponse
    = $account_srv->update_service_features(
        $auth_info,
        $UpdateAccountServiceFeaturesRequest
    )->result();

$GetAccountServiceFeaturesResponse
    = $account_srv->get_service_features(
        $auth_info,
        $GetAccountServiceFeaturesRequest,
    )->result();

$service_features = $GetAccountServiceFeaturesResponse-
    >{service_features};

SERVICE_FEATURE_ITEM_2:
for my $service_feature (@{$service_features}) {
    if ($service_feature->{name} eq 'default_action') {
        print "Default Action settings: ",
            fm_decode($service_feature->{flag_value}),
            "\n"
        ;
        last SERVICE_FEATURE_ITEM_2;
    }
}

exit 0;

```

Definition of "Time Period"

A time period is specified as a string in the following format:

sub-period[, sub-period...]

A sub-period takes the following form:

scale {range [range ...]} [scale {range [range ...]}]

The scale must be one of nine different options (or their equivalent codes):

Scale	Scale Code	Valid Range Values
year	yr	n – where n is an integer $0 \leq n \leq 99$ or $n \geq 1970$
month	mo	1-12 or jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec
week	wk	1-6

yday	yd	1-365
mday	md	1-31
wday	wd	1-7 or su, mo, tu, we, th, fr, sa
hour	hr	0-23 or 12am 1am-11am 12noon 12pm 1pm-11pm
minute	min	0-59
second	sec	0-59

The same scale type may be specified multiple times. Additional scales simply extend the range defined by previous scales of the same type.

The range of a given scale must be a valid value in the form

v

or

$v-v$

In the range specification $v-v$, if the second value is larger than the first, the range wraps around unless the scale specification is “year”. Year does not wrap because a year is never really reset, rather it just changes by increments. Ignoring that fact that led to the dreaded Y2K nightmare, when a year rolls over from 99 to 00, it has really rolled over one century, not gone back a century. Time period supports the ambiguous two digit year notation because it is so widespread. However, two-digit notation is converted to four digits by prepending the first two digits of the current year. In the case of 99-1972, the 99 is translated to whatever the current century is (probably the 20th), and so the range 99-1972 is treated as 1972-1999. For the 21st century, the range would then be 1972-2099.

In any case, if $v-v$ is 9-2, and the scale is month, September, October, November, December, January, and February are the months specified by the range (9-2 is the same as Sep-Feb). If $v-v$ is 2-9, then the valid months are February, March, April, May, Jun, July, August, and September.

v is not a point in time. For the hour scale, 9 specifies the time period from 9:00:00 am to 9:59:59 am. This is what most people would call 9-10. In other words, v is discrete in its time scale. 9 changes to 10 when 9:59:59 changes to 10:00:00, but 9 is the period from 9:00:00 to 9:59:59. Just before 9:00:00, v was 8.

Note that there can be a white space anywhere, and case is unimportant. Note also that scales must be specified either in long form (year, month, week, etc.) or in code form (yr, mo, wk, etc.). Scale forms in a period statement may be mixed.

Furthermore, when using letters to specify ranges, only the first two (for weekdays) or the first three (for months) are significant. January is a valid specification for Jan, and Sunday is a valid specification for su. Sun is also valid for su.

PERIOD EXAMPLES:

To specify a time period from Monday through Friday, 9am to 5pm, use the following period:

wd {Mon-Fri} hr {9am-4pm}

When specifying a range using “-”, it is best to think of “-” as meaning “through”, i.e. 9am through 4pm, which is the time interval ending just before 5pm . To specify a time period from 9am to 5pm on Monday, Wednesday, and Friday and from 9am to 3pm on Tuesday and Thursday, use the following period:

wd {Mon Wed Fri} hr {9am-4pm}, wd{Tue Thu} hr {9am-2pm}

To specify a time period that extends from Monday to Friday, 9am to 5pm, but alternates the weeks in a month, use the following period:

wk {1 3 5} wd {Mon Wed Fri} hr {9am-4pm}

For a period that specifies the winter:

mo {Nov-Feb}

The next example is equivalent to the previous one:

mo {Jan-Feb Nov-Dec}

as is:

mo {jan feb nov dec}

or also:

mo {Jan Feb}, mo {Nov Dec}

and this, too:

mo {Jan Feb} mo {Nov Dec}

To specify a period of every other half-hour, use something like this:

minute {0-29}

To specify the morning, use this:

hour {12am-11am}

Remember that 11am is not 11:00:00am, but rather 11:00:00am - 11:59:59am.

5-second blocks could be a “fun” period to specify:

sec {0-4 10-14 20-24 30-34 40-44 50-54}

To specify every first half-hour on alternating weekdays, and the second half-hour during the rest of the week, use the following period:

wd {1 3 5 7} min {0-29}, wd {2 4 6} min {30-59}

Sample Script for PortaUM SOAP Communication

```
#!/perl -w
use strict;
#use SOAP::Lite +trace => 'debug';
use SOAP::Lite;
use MIME::Entity;
use Data::Dumper;

##### prepare
#####
#####
my $soap_sess = SOAP::Lite
-> uri('https://localhost/UM/SOAP/Session')
-> proxy('https://pum-host:8443/soap.fcgi')
-> on_fault( sub {
my($soap, $res) = @_;
print ("SOAP error:". (ref $res ? $res->faultstring : $soap->transport->status . "/" . $res));
});
```

```

my $soap_test = SOAP::Lite
-> uri('https://localhost/UM/SOAP/Voicemail')
-> proxy('https://pum-host:8443/soap.fcgi')
-> on_fault( sub {
my($soap, $res) = @_;
print ("SOAP error:". (ref $res ? $res->faultstring : $soap->transport->status . "/" . $res));
});

my $soap_queue = SOAP::Lite
-> uri('https://localhost/UM/SOAP/Queues')
-> proxy('https://pum-host:8443/soap.fcgi')
-> on_fault( sub {
my($soap, $res) = @_;
print ("SOAP error:". (ref $res ? $res->faultstring : $soap->transport->status . "/" . $res));
});

my $soap_dial_dir = SOAP::Lite
-> uri('https://localhost/UM/SOAP/DialDirectory')
-> proxy('https://pum-host:8443/soap.fcgi')
-> on_fault( sub {
my($soap, $res) = @_;
print ("SOAP error:". (ref $res ? $res->faultstring : $soap->transport->status . "/" . $res));
});

my $soap_aa = SOAP::Lite
-> uri('https://localhost/UM/SOAP/AutoAttendant')
-> proxy('https://pum-host:8443/soap.fcgi')
-> on_fault( sub {
my($soap, $res) = @_;
print ("SOAP error:". (ref $res ? $res->faultstring : $soap->transport->status . "/" . $res));
});

my $authInfo = $soap_sess->login({
'login' => '88881',
'domain' => 'pum.somedomain.com',
'password' => 'test123'})->result();
$authInfo = SOAP::Header->name( 'auth_info' => {
'session_id' => $authInfo->{'session_id'}
});
my $authInfo_nosess = SOAP::Header->name( 'auth_info' => {
'login' => '88881',
'domain' => 'pum.somedomain.com',
'password' => 'test123'
});

#####
#####
my $res;
#example of accessing SOAP module without establishing session
$res = $soap_test->get_vm_settings($authInfo_nosess)->result();
print Dumper($res);
$res = $soap_test->set_vm_settings($authInfo,
{'vm_settings' =>
{
'password' => '777',
'ext_email' => 'sergey.pavlov@gmail.com',
'auto_play' => 'no',
'announce_dt' => 'no'
} })->result();
print "set_vm_settings done\n";
my $sent = MIME::Entity->build(
'Filename' => 'wellcome.au',
'Type' => 'audio/basic',
'Encoding' => 'base64',
'Path' => '/home/porta-um/apache/prompts/en/personal_ivr/frw_select_order.au',
);

my @parts = ($sent);
$res = $soap_test->parts(@parts)->set_vm_greeting($authInfo,
{'greeting_info' =>
{

```



```

        'greeting_type' => 'name',
        'filename'=> 'wellcome.au'
    } })->result();
print "set_vm_greeting done\n";

$res = $soap_test->get_vm_greeting($authInfo,
    {
        'greeting_type' => 'name',
    })->result();
print "get_vm_greeting done\n";
##### Call Queues #####
$res = $soap_queue->get_queue_list($authInfo)->result();
print "get_queues done\n";
print Dumper($res);

$res = $soap_queue->parts(@parts)->create_queue($authInfo,
    { 'queue_info' => {
        'name'      => 'aaabbbccc',
        'destination' => '191919',
        'capacity'   => '10',
        'average_duration'=> '15',
        'moh'        => 'wellcome.au'
    } })->result();
print "create_queue done\n";
print Dumper($res);
my $i_q = $res->{'i_queue'};

$res = $soap_queue->get_queue_list($authInfo)->result();
print "get_queues done\n";
print Dumper($res);
$res = $soap_queue->parts(@parts)->update_queue($authInfo,
    { 'queue_info' => {
        'i_queue'   => $i_q,
        'name'      => 'ccdddeee',
        'destination' => '7777777',
        'capacity'   => '10',
        'average_duration'=> '15',
        'moh'        => 'wellcome.au'
    } })->result();
print "update_queue done\n";
$res = $soap_queue->del_queue($authInfo,
    {
        'i_queue'=> $i_q,
    })->result();
print "del_queue done\n";
print Dumper($res);
##### Dial Directory #####
$res = $soap_dial_dir->get_dir_info($authInfo)->result();
print "get_directory_list done\n";
print Dumper($res);

$res = $soap_dial_dir->parts(@parts)->create_dir_entry($authInfo,
    {
        'dir_entry_info' => {
            'active'      => 'Y',
            'abbreviated_number'=> '1787896',
            'number_to_dial' => '111111',
            'lastname'    => 'LName',
            'description'  => 'desc foo',
            'prompt'      => 'wellcome.au'
        }
    } )->result();
print "create_dir_entry done\n";
print Dumper($res);
my $i_entry = $res->{'i_entry'};
$res = $soap_dial_dir->parts(@parts)->update_dir_entry($authInfo,
    {
        'dir_entry_info' => {
            'i_entry'    => $i_entry,
            'active'     => 'Y',
            'abbreviated_number'=> '99',
            'number_to_dial' => '565656',
        }
    } )->result();

```

```

        'lastname' => 'LastName',
        'description' => 'desc333',
        'prompt' => 'wellcome.au'
    }
    }->result();
print "update_dir_entry done\n";
$res = $soap_dial_dir->get_dir_entry($authInfo, {'i_entry' => $i_entry} )->result();
print "get_dir_entry done\n";
print Dumper($res);

$res = $soap_dial_dir->del_dir_entry($authInfo,
    {'i_entry' => $res->{'dir_entry_info'}->{'i_entry'}} )->result();
print "del_dir_entry done\n";
print Dumper($res);

##### Auto Attendant #####

$res = $soap_aa->get_menu_list($authInfo)->result();
if (!$res) {
    print "get_menu_list failed\n";
}
print "get_menu_list done\n";
print Dumper($res);
my $root_i_menu;
foreach my $menu (@{$res->{'menu_list'}}) {
    if ($menu->{'name'} eq 'ROOT') {
        $root_i_menu = $menu->{'i_menu'};
        last;
    }
}

$res = $soap_aa->parts(@parts)->set_menu_prompt($authInfo,
    {
        'i_menu' => $root_i_menu,
        'prompt_type' => 'intro',
        'prompt' => 'wellcome.au'
    })->result();
print "set_menu_prompt done\n";
print Dumper($res);

$res = $soap_aa->set_menu_transition($authInfo,
    {
        'transition_info' => {
            'i_menu' => $root_i_menu,
            'event' => '0',
            'action' => 'Transfer',
            'destination' => '5555',
        }
    })->result();
print "set_menu_transition done\n";
print Dumper($res);

$res = $soap_aa->get_menu_transition_list($authInfo,
    {
        'i_menu' => $root_i_menu,
    })->result();
print "get_menu_transition_list done\n";
print Dumper($res);

$res = $soap_aa->get_menu_prompt($authInfo,
    {
        'i_menu' => $root_i_menu,
        'prompt_type' => 'intro',
    })->result();
print "get_menu_prompt done\n";
print Dumper($res);

$res = $soap_aa->create_menu($authInfo,
    { 'menu_info' => {
        'name' => 'AABBBCCC',
        'period' => 'hr{0-11}',
        'period_desc' => 'Some period',
    }

```

```
'msg_timeout_type' => 'standard'
}
})->result();
print "create_menu done\n";
print Dumper($res);
my $new_i_menu=$res->{'i_menu'};

$res = $soap_aa->update_menu($authInfo,
{ 'menu_info' => {
  'i_menu'    => $new_i_menu,
  'name'     => 'DDDEEFF',
  'period'   => 'hr{0-2}',
  'period_desc' => 'New period',
}
})->result();
print "update_menu done\n";
print Dumper($res);

$res = $soap_aa->get_menu_list($authInfo)->result();
print "get_menu_list done\n";
print Dumper($res);

$res = $soap_aa->del_menu($authInfo,
{ 'i_menu' => $new_i_menu })->result();
print "del_menu done\n";
print Dumper($res);

$res = $soap_sess->logout($authInfo)->result();
print "logout done\n";
print Dumper($res);
```