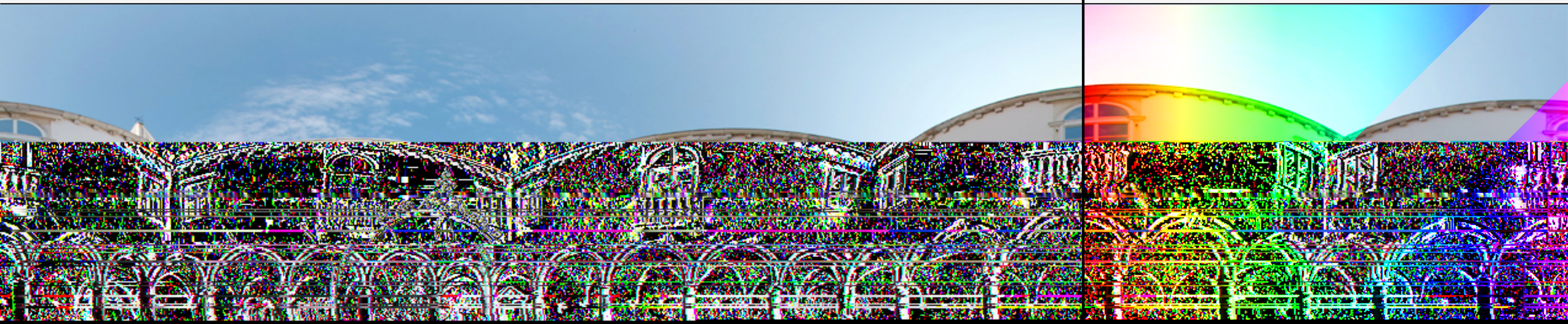
PORTA
ONE

Porta Billing100™



Web Reference

Maintenance Release 15

www.portaone.com

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PortaBilling100 Web Reference, June 2007
Maintenance Release 15
V1.15.3

Please address your comments and suggestions to: Sales Department, PortaOne, Inc. Suite #400, 2963 Glen Drive, Coquitlam BC V3B 2P7 Canada.

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Document Objectives

The target audience of this document are system administrators, VoIP engineers, and system or helpdesk operators who will be managing your services via the PortaBilling100 web interface.

How to Get Technical Assistance

The dealer from whom you purchased this product is the *first place* you should go for technical assistance. The dealer is usually the most qualified source of help, and is the person most familiar with your system and how this product should be installed. Many dealers have customer service and technical support programs that offer varying levels of support, depending on your needs and computer knowledge.

If your dealer cannot assist you

If you cannot get assistance from your dealer, the vendor provides varying levels of technical assistance.

PortaOne's Customer Support Service (e-mail: support@portaone.com) can supply quick answers to specific inquiries regarding product features and technical questions. You can visit our website (**http://www.portaone.com**) for more information.

Hardware and Software Requirements

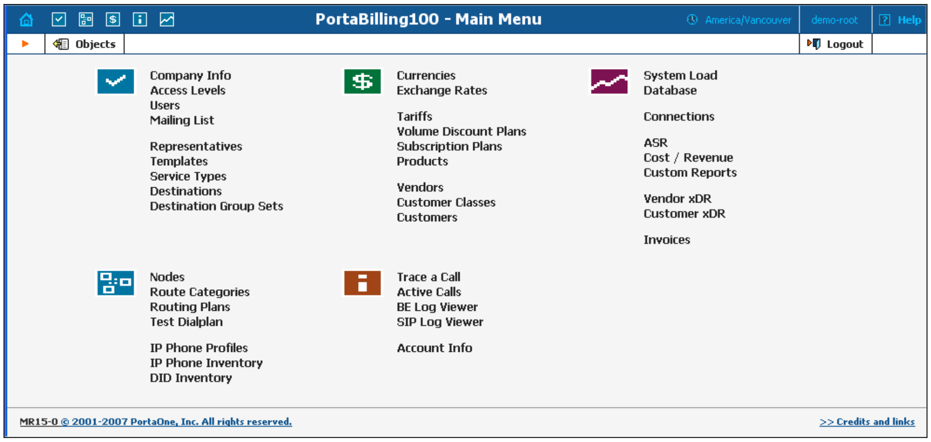
Client System Recommendations

- OS: Windows 95-XP, UNIX or Mac OS
- Web Browser: Internet Explorer 6.0, FireFox 2.0 with JavaScript and cookies enabled.
- Spreadsheet processor (MS Excel)
- Display Settings:
    - Min. Screen Resolution: 1024 x 768
    - Color Palette: 16 bit color (minimum)

NOTE: To view downloaded CSV (Comma-Separated Values) files in Windows, please do the following to match PortaBilling's default list separator: My Computer -> Control Panel -> Regional Settings -> Number -> List Separator type ",".

1. Introduction

PortaBilling's front-end design and functionality are simple and intuitive. The web interface of the PortaBilling home page is the main point of entry to all system objects and tools. Divided into five functional blocks, the icons below link to pages containing tools for system management, VoIP networking, billing, customer help, and generating statistics. Each second-level page contains a link back to the home page.


PortaBilling100 - Main Menu
America/Vancouver
demo-root
Help
Objects
Logout
Company Info
Access Levels
Users
Mailing List
Representatives
Templates
Service Types
Destinations
Destination Group Sets
Currencies
Exchange Rates
Tariffs
Volume Discount Plans
Subscription Plans
Products
Vendors
Customer Classes
Customers
System Load
Database
Connections
ASR
Cost / Revenue
Custom Reports
Vendor xDR
Customer xDR
Invoices
Nodes
Route Categories
Routing Plans
Test Dialplan
IP Phone Profiles
IP Phone Inventory
DID Inventory
Trace a Call
Active Calls
BE Log Viewer
SIP Log Viewer
Account Info
MR15-0 © 2001-2007 PortaOne, Inc. All rights reserved.
>> Credits and links

These are the five functional blocks:

Management	Normal system maintenance tasks, such as adding administrative users and maintaining the destinations database.
Networking	Configuration of network components: registering new nodes (network endpoints) in the system; configuration of User Agent profiles.
Billing	Tasks related to billing, such as customer, vendor and account management and rate plan definition; maintenance of currencies and exchange rates.
Help Desk	Tasks available to help desk staff for assistance in troubleshooting problems that clients may inquire about.
Statistics	A variety of statistics and reports are available, reflecting the status of the system or providing information on call records, costing and revenue.

PortaBilling Security

PortaBilling100 is compliant with Visa Security Standards.

User Interface

- Inactivity logout
- Unconditional logout

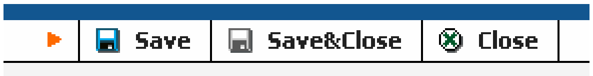
User Passwords:

- The minimum password length is six (6) characters. In the case of long passwords, only a certain number of the leading characters will actually be used (however, at least eight (8) characters).
- Passwords include both alphabetical and numerical components.
- Passwords are stored under irreversible encryption.
- It is required that the current password be used before allowing a new password to become effective.
- The user's last four (4) passwords cannot be re-used (see the note above about long passwords; new passwords must differ in at least one of their first 8 characters).
- It is prohibited to change a password within one (1) day of the previous change.
- The initial password must be changed on the first login.
- Passwords must be changed at least once every 30 days.
- Use dictionary checking to restrict password selection.

Credit Card information

- Credit card information is displayed as 1234xxxxxxx567
- Credit card information is stored using the same encryption as for the Payment System password.

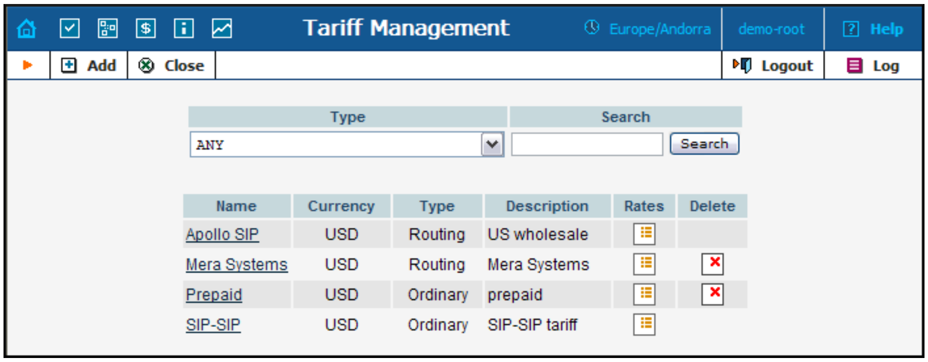
The toolbar often also shows a list of available actions relative to the current page:


Save
Save&Close
Close

This toolbar acts as the equivalent of the "File" menu for the application, i.e. the usual location for the "Save", "Close" and "Add" operations.

Delete an Object in the Database

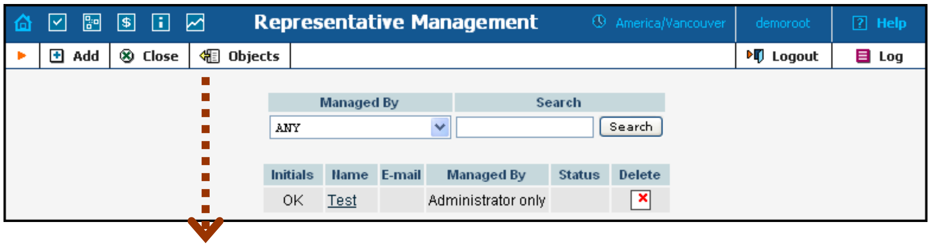
If you see the icon ☒ next to an object name in the list of objects, this means it can be deleted from the system. Note that only objects which are not used elsewhere in the system may be deleted. For instance, in the screenshot below, the **Mera Systems** and **Prepaid** tariffs can be deleted, whereas the rest of tariffs are being used by some product or connection.


Tariff Management
Europe/Andorra
demo-root
Help
Add
Close
Logout
Log
Type
Search
ANY
Search

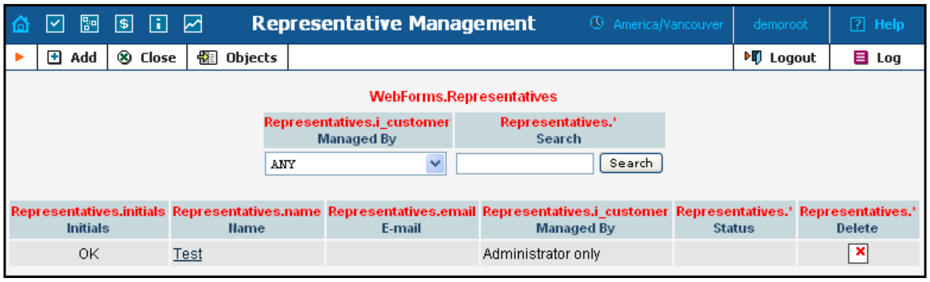
Name	Currency	Type	Description	Rates	Delete
Apollo SIP	USD	Routing	US wholesale	☰	
Mera Systems	USD	Routing	Mera Systems	☰	☒
Prepaid	USD	Ordinary	prepaid	☰	☒
SIP-SIP	USD	Ordinary	SIP-SIP tariff	☰	

Show Objects

The Objects icon is only available to the Root user; when selected, it shows the object properties, as seen in the illustration below. These object properties can be used by the administrator when configuring access levels for certain users in the system. See the **Access Levels** section for more information.


Representative Management
America/Vancouver
demoroot
Help
Add
Close
Objects
Logout
Log
Managed By
Search
ANY
Search

Initials	Name	E-mail	Managed By	Status	Delete
OK	Test		Administrator only		☒

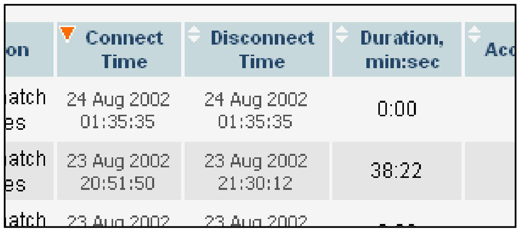


WebForms.Representatives

Representatives.i_customer Managed By	Representatives.' Search
ANY	

Representatives.initials Initials	Representatives.name Name	Representatives.email E-mail	Representatives.i_customer Managed By	Representatives.' Status	Representatives.' Delete
OK	Test		Administrator only		☒

Sorting Tables



on	Connect Time	Disconnect Time	Duration, min:sec	Acc
atch es	24 Aug 2002 01:35:35	24 Aug 2002 01:35:35	0:00	
atch es	23 Aug 2002 20:51:50	23 Aug 2002 21:30:12	38:22	
atch	23 Aug 2002	23 Aug 2002		

This feature is available for all xDR browsers in order to sort the displayed information according to different criteria, where necessary. The table header cell with the orange triangle shows the sorted row. A triangle pointing downward indicates descending order, while a triangle pointing upward means ascending order.

Sorting is available for all columns with a bi-directional white arrow in the top left-hand corner of the header cell. To sort a column, simply click on the header; click the same column again for the opposite sorting order.

Another handy feature for sorting tables is that the table header is always visible, even if you scroll to the bottom of a large table which does not fit completely on the screen.

Multiple Languages

PortaBilling uses a flexible and extensible localization system. Every user of the system (admin user, account, customer, vendor, customer care admin) can choose the language of the web interface for his session. This does not, of course, affect other users; thus user John can work with the system using English as his interface language, while user Peter can make use of Chinese simplified as his language. Currently, PortaBilling supports such commonly-used languages as Arabic, Chinese, French, German, Portuguese, Russian and Spanish, in addition to English. New languages may easily be added on request; please contact Porta Software to obtain the XML template files if you would like to perform the translation yourself.

[illegible] allows users to define both the input and output formats for date and time.

user's request will contain the date and time in the previously set-up format.

Date/Time format strings are composed using specifiers that represent the values to be inserted into the formatted string.

In the following table, the specifiers are given in upper case. Formats are case-insensitive.

Specifier	Value	Description
		Date
DD	01-31	Day of the month
D	1-31	Day of the month without a leading 0
MM	01-12	Number of the month
MON	Jan-Dec	Name of the month
MONTH	January-December	Full name of the month
YYYY	2003 +	Year
YY	00-99	Last two digits of the year
		Time
HH, HH24	0-24	Hours
HH12	0-12	12-hour time format; requires AM/PM Specifier
MI	0-60	Minutes
SS	0-60	Seconds
AM, PM, AM/PM	AM, PM	
		Separators
A separator can be any symbol except for letters and digits, or may be left blank		

Example	Value
DD/MM/YYYY	12/03/2003
MON-DD-YY	MAR-12-03
HH:MI:SS	12:30:00
HH12 MI:SS	WRONG! AM/PM Specifier is missing
HH12mi pM	1230 AM

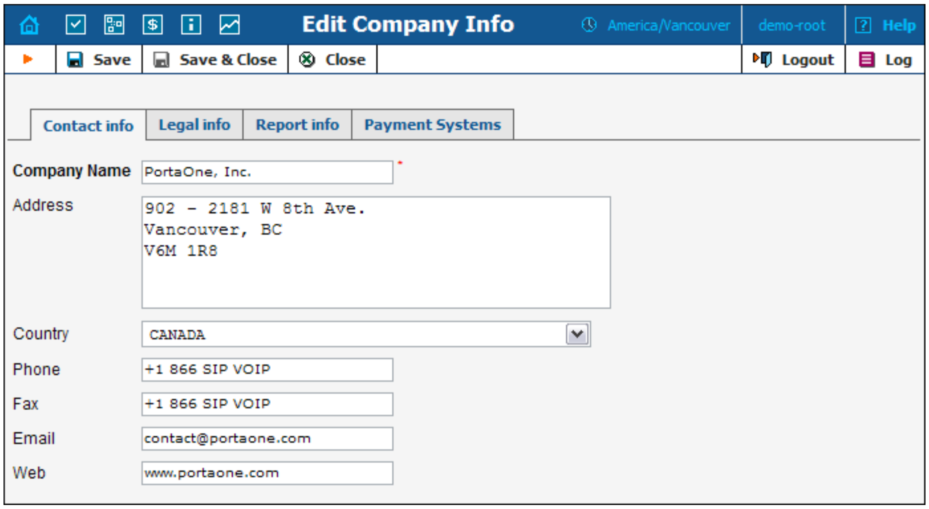
Current Release and Build information

In the bottom left corner of the main menu screen, you can see information about the maintenance release and build of the software currently installed, e.g. `MR15-2` means "Maintenance Release 15" and "Build 2".

2. System Management

Company Info

The Company Info screens allow the administrator to maintain corporate information relating to your business. This data will be included on reports such as invoices.


Edit Company Info
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Logout
Log
Contact info
Legal info
Report info
Payment Systems

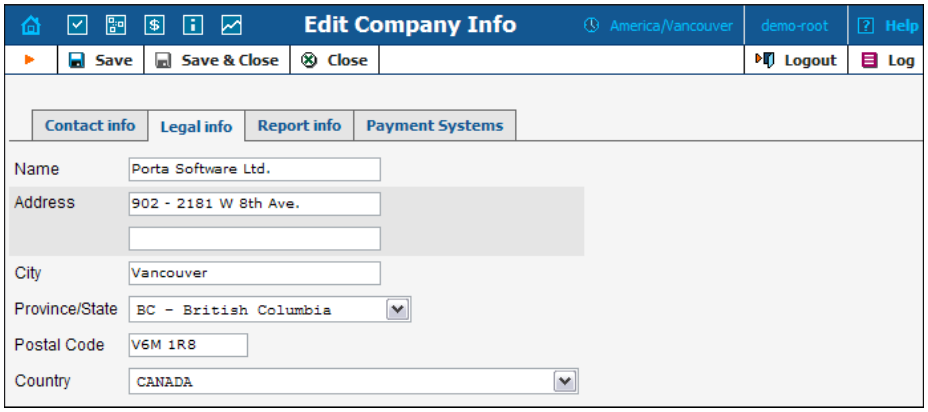
Company Name	PortaOne, Inc.
Address	902 - 2181 W 8th Ave. Vancouver, BC V6M 1R8
Country	CANADA
Phone	+1 866 SIP VOIP
Fax	+1 866 SIP VOIP
Email	contact@portaone.com
Web	www.portaone.com

Contact Info

The information provided in the Contact Info tab is typically used on reports as the primary point of contact for your vendors and customers. This information is the same as that which appears on your letterhead and business cards, for example.

Field	Description
Company Name	The conventional form of your company's name. (For example, "EasyCall, Inc.")
Address	Street address of the company.
Country	The country may be selected from a drop-down list.
Phone	Primary telephone number for the company.
Fax	Primary fax number.
E-mail	Primary e-mail contact for the company. If defined, this email address will appear in the From: field of all outgoing emails, e.g. statistics/invoices or low credit warnings sent to your customers.
Web	Web address of the company.

Legal Info


Edit Company Info
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Logout
Log
Contact info
Legal info
Report info
Payment Systems

Name	Porta Software Ltd.
Address	902 - 2181 W 8th Ave.
City	Vancouver
Province/State	BC - British Columbia
Postal Code	V6M 1R8
Country	CANADA

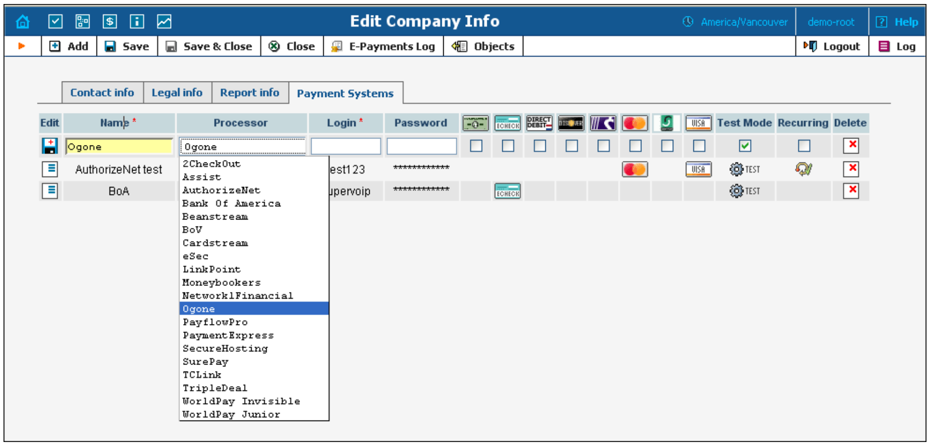
The Legal Info tab allows you to enter information about your company that could be used for any legal transactions, e.g. for taxation purposes.

Field	Description

Field	Description
Time Zone	Time zone in which global reports for the environment (e.g. Cost/Revenue Report) will be generated.
Reconciliation Period	One of the following: daily, weekly, bi-weekly or monthly. This will also set up the periodicity of the **Unresolved xDR Reports**. (See the *Statistics* section below.)
TaxID	Locally-designated tax number.
Currency	The company's internal currency. You can use different currencies for your customers or vendors, but Cost/Revenue Reports will be generated in this currency. The value for this parameter is set permanently for the new environment, and cannot be changed later.

Payment Systems

The Payment Systems tab lists all existing payment systems, and allows you to enter information related to payment gateways used to receive payments from customers.


Edit Company Info
America/Vancouver
demo-root
Help
Add
Save
Save & Close
Close
E-Payments Log
Objects
Logout
Log
Contact info
Legal info
Report info
Payment Systems
2CheckOut
Assist
AuthorizeNet
Bank Of America
Beanstream
BoV
Cardstream
eSec
LinkPoint
Moneybookers
Network1Financial
Ogone
PayflowPro
PaymentExpress
SecureHosting
SurePay
TCLink
TripleDeal
WorldPay Invisible
WorldPay Junior

Edit	Name *	Processor	Login *	Password	Test Mode	Recurring	Delete
	Ogone	Ogone			☑	☐	☒
	AuthorizeNet test		est123	*************	TEST		☒
	BoA		upervoip	*************	TEST		☒

One or more payment systems may be utilized for electronic payments. In order to make use of these services, you must first register with one of the currently-supported[*] merchants, as shown below:

Name	Web Page
2CheckOut	www.2checkout.com
AuthorizeNet	www.authorize.net
Beanstream	www.beanstream.com
Cardstream	www.cardstream.com
iAuthorizer	www.iauthorizer.net
Ingenico	www.ingenico.com.au
LinkPoint	www.linkpoint.com
PayflowPro	www.verisign.com/products/payment.html
VirtualNet	www.vitalps.com
WorldPay Invisible	www.worldpay.com
Assist	www.assist.ru
Moneybookers[**]	www.moneybookers.com
PaymentExpress	www.paymentexpress.com
SecureHosting	www.securehosting.com

To add a new payment system, click **Add** and enter the Account Name, Login, Password and Merchant in the edit row at the top of the listing. Choose one or several payment methods which will be used for payments made by these payment systems. To edit an existing account, click **Edit** and copy the information from the current row into the form above. Save changes using the **Save** button. A recurring payment allows customers to set up periodic payments on this payment system. Payment systems with recurring payment enabled are indicated by the icon.

After adding the payment system, it is necessary to assign it to one or several currencies in which payments will be processed using the chosen payment methods (see the *Currencies* section). Only after doing so can this payment system be used for payments by customers and accounts defined in these currencies. Please note that several (more than one) systems may not be assigned to the same currency using the same allowed payment method, i.e. you cannot have two systems with VISA as the allowed

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[*] Supported means that a corresponding Business::OnlinePayment plugin module is available at www.cpan.org. This does not guarantee that the module will support all the required features, and some extra work may be required to integrate it into the solution and perform testing. Please contact support@portaone.com for a current list of payment modules which have been thoroughly tested and work “out of the box”, such as AuthorizeNet.

[**] Payment systems with external authorization. It is not possible to carry out manual e-commerce transactions (e-commerce charge and e-commerce refund) for customers with such a payment system. Only a make payment operation from customer/account self-care is supported in such cases. Also, the recurring option (periodic payments) is not supported, and therefore should not be enabled.

- If the merchant service provider is also your payment processor reseller, it also activates the processing capability for these cards on your payment processor account.
- Deposits credit card funds to your account.

Your merchant service provider may also provide you with MID and TID numbers. The payment processor does not need these numbers, but some third-party solutions (such as certain Shopping Cart providers) may require them.

Once your payment system is set up and “live” on the credit card system, you can begin accepting credit cards from customers. It is your responsibility to configure the payment processor to meet your own needs, and to provide a hosting environment which is appropriate for the choices you have made within the payment processor.

The **E-Payments Log** button in the toolbar allows you to access information about credit card or direct debit charge attempts for the whole environment. Please see section *E-Payments Log* for further details.

Access Levels

Introduction to the ACL System

Different types of users have different responsibilities within the billing system. Some users may not be allowed to use or see certain portions of the system. To this end, PortaBilling supports the concept of **Access Control Lists** (ACL). ACLs allow the PortaBilling100 administrator to decide, for example, that a particular sales representative can look at customers' data, but cannot create new customers.

ACLs allow you to control what users of your site can and cannot do. Without such restrictions, it is almost impossible to guarantee that users will see or change only the information that they are allowed to.

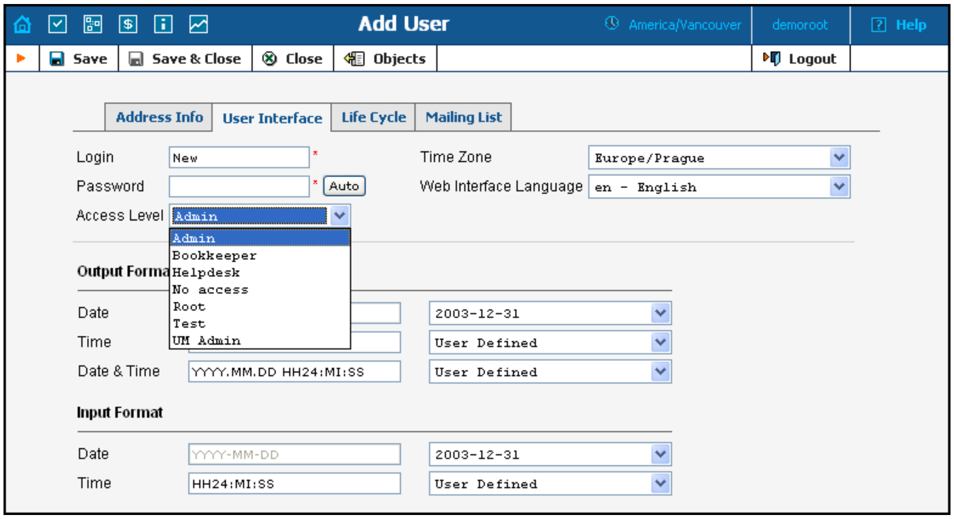
ACL Types

An access level can be one of the following:

- Account
- CC Staff
- Component (cannot be assigned to users; used only as a building block to construct other access levels)
- Customer
- Representative
- User (access level for users of the admin interface)
- Vendor

These levels are composed of permissions and, optionally, other components. A permission is the lowest level of access control resources. It contains a set of permissions that are granted when using a component.

The difference between a User ACL and other types is that a User ACL will appear as an Access Level when creating a new user or modifying an existing user's details.


Add User
America/Vancouver
demoroot
Help
Save
Save & Close
Close
Objects
Logout
Address Info
User Interface
Life Cycle
Mailing List
Auto

Login	New *	Time Zone	Europe/Prague
Password	*	Web Interface Language	en - English
Access Level	Admin		

Admin
Bookkeeper
Helpdesk
No access
Root
Test
UM Admin

Output Forma

Date		2003-12-31
Time		User Defined
Date & Time	YYYY.MM.DD HH24:MI:SS	User Defined

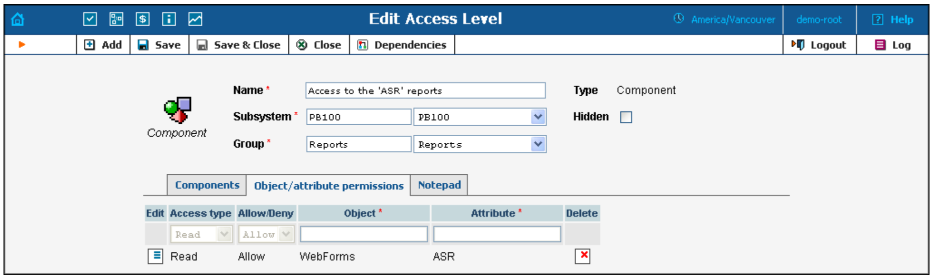
Input Format

Date	YYYY-MM-DD	2003-12-31
Time	HH24:MI:SS	User Defined

Permissions

A permission is the fundamental unit of exchange in the PortaBilling100 security model. Permissions are composed of an access type, whether or not this is an allowed action, the relevant object, and the relative attribute of the object.

Let's take the example of ASR reports. An access level called "Access to 'ASR' reports" is provided within the PortaBilling100 installation. It defines only one permission, which appears as in the following screenshot:


Edit Access Level
America/Vancouver
demo-root
Help
Add
Save
Save & Close
Close
Dependencies
Logout
Log
Component
Components
Object/attribute permissions
Notepad

Name *	Access to the 'ASR' reports	Type	Component
Subsystem *	PB100 / PB100	Hidden	☐
Group *	Reports / Reports		

Edit	Access type	Allow/Deny	Object *	Attribute *	Delete
	Read	Allow			
≡	Read	Allow	WebForms	ASR	☒

The "Access type" is set to "Read", and the permission is to "Allow". This permission applies only to "WebForms" objects which have the attribute "ASR".

There are four possible access types:

- **read** - view the specified resource
- **update** - modify the resource
- **insert** - create new instances of the resource type
- **delete** - remove instances of the resource from the system

The field "Allow/Deny" defines whether this permission has been granted or withheld.

You should never have to provide fine-grain permission information yourself, as all possible permissions are already encapsulated in the components of your PortaBilling100 installation. For this reason, we will not discuss the "Object" and "Attribute" fields further in this section. However, it may be useful to know that wildcards can be used in these fields. For example, to allow Read access to all web pages, an ACL could be defined with the following permissions:

Access type: "Read"
Allow/Deny: "Allow"
Object: "WebForms"
Attribute: "*"

As may be guessed, the "*" in the attribute field means "all attributes".

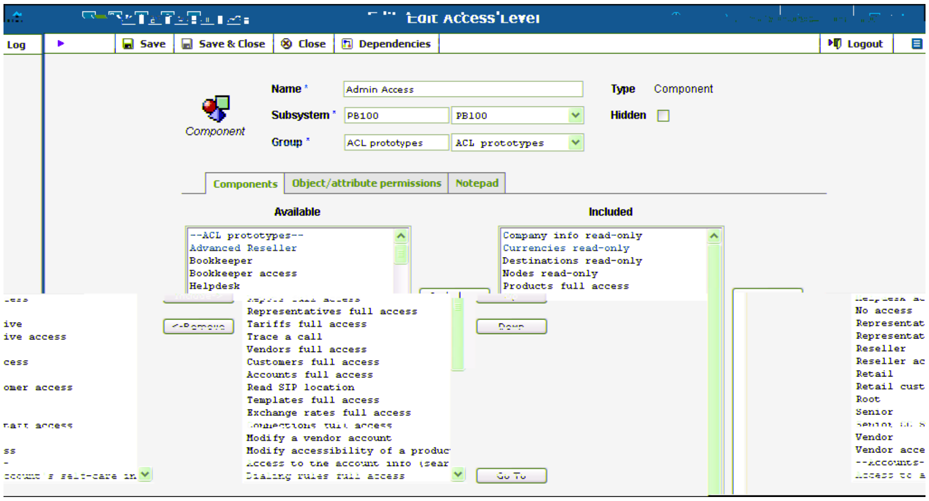
NOTE: Should you find it necessary to modify these basic components or create new ones, please contact PortaOne Support. We can provide you with a list of Object and Attribute resources, or otherwise assist you in maintaining ACLs.

Components and User ACLs

Components will be made up of zero or more permissions, and can include other components (as dependencies). If access level ACLX includes access levels ACL1, ACL2 and ACL3 (or, in other words, is *derived* from ACL1, ACL2 and ACL3), then ACLX will contain all the permissions defined in ACL1, ACL2 and ACL3 (along with all of the access levels they in turn are derived from).

What happens if there is a contradiction; for example, if ACL1 denies read access to Accounts.password, and ACL2 grants it? In such a case, the first available definition will be used. Thus, in the example above, access will be denied according to ACL1, which is first in the list of included access levels. In addition to these, a component has several other aspects.

When editing a component, you will first see a screen as in the following screenshot:



Name * Admin Access
Type Component
Subsystem * PB100 PB100
Hidden ☐
Group * ACL prototypes ACL prototypes

Available:
--ACL prototypes--
Advanced Reseller
Bookkeeper
Bookkeeper access
Helpdesk

Included:
Company info read-only
Currencies read-only
Destinations read-only
Nodes read-only
Products full access
Representatives full access
Tariffs full access
Trace a call
Vendors full access
Customers full access
Accounts full access
Read SIP location
Templates full access
Exchange rates full access
Modify a vendor account
Modify accessibility of a produc

Including components as dependencies within other components gives the system its power. Here we see that the "Admin access" level is defined by over a dozen dependant components. Note that this component does not actually define a permission itself, but rather relies on the implementation of its dependants.

By deriving new components from existing components in the system, you can implement fine-grain access control and define User ACLs specific to your operational environment.

ACL Subsystems

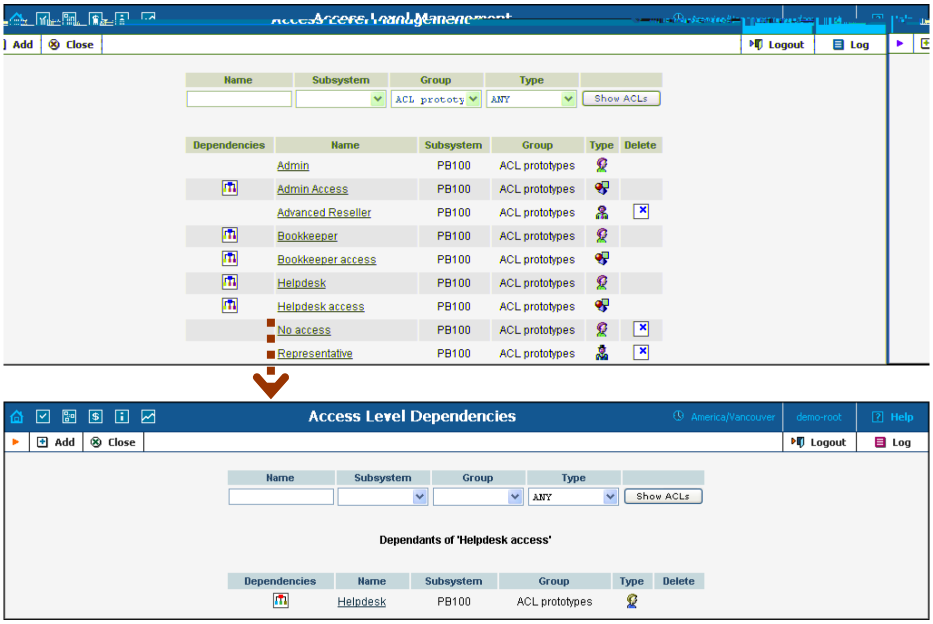
In some cases, the same object and attribute can be interpreted differently according to the context. For instance, a reseller can access his own customer information, or information about his sub-customer. Although in both cases he will work with the same physical fields in the database, he needs to have fundamentally different sets of permissions. This is accomplished using subsystems in the ACL definition. In this example, there would be two ACLs defining applicable operations with the **Customers.name** attribute (or other attributes of a customer). One of these ACLs will have the subsystem **PB100**, defining access in a global context, i.e. the reseller's access to his own information. The other ACL will have the subsystem **Sub-customers**, which defines the reseller's access to information about his sub-customers.

Access Level Management Interface

In this discussion of the ACL system, we have proceeded by starting with the fundamentals and building up your skills from there. Now we will discuss the entry point for ACL management. On the PortaBilling100 administrative interface you will find a link to "Access Levels". This link takes you to the Access Level Management main screen pictured below.

This screen is similar to many others in the PortaBilling100 system, including a search interface at the top and a results listing at the bottom. (By default, all ACLs are shown in a paged format on this screen.) You may search for ACLs using any combination of Name and Type.

In the results listing, you may also see the dependencies icon and delete icon. ACLs can only be deleted when they are not in use. If a component contains any included components, you will be able to click on the dependencies and see search results for all dependants. The following screenshot shows all dependants for "Accounts full access". Note that some of the dependants have their own dependencies.



Name	Subsystem	Group	Type
		ACL prototy	ANY

Dependencies	Name	Subsystem	Group	Type	Delete
	Admin	PB100	ACL prototypes		
⊞	Admin Access	PB100	ACL prototypes		
	Advanced Reseller	PB100	ACL prototypes		☒
⊞	Bookkeeper	PB100	ACL prototypes		
⊞	Bookkeeper access	PB100	ACL prototypes		
⊞	Helpdesk	PB100	ACL prototypes		
⊞	Helpdesk access	PB100	ACL prototypes		
	No access	PB100	ACL prototypes		☒
	Representative	PB100	ACL prototypes		☒

Name	Subsystem	Group	Type
			ANY

Dependants of 'Helpdesk access'

Dependencies	Name	Subsystem	Group	Type	Delete
⊞	Helpdesk	PB100	ACL prototypes		

We have already talked about the necessary parameters for creating or editing components, but we have not yet discussed component inclusion in detail. Each access level may have zero or more dependant components. These components are ordered, and likewise are applied in order until the first matching permission is reached.

In order to understand this better, we will use the previous example. Suppose a user is trying to view ASR reports. His access level must allow reading of "WebForms.ASR" (object "WebForms", attribute "ASR"). For the sake of simplicity, we will say that his access level includes "A", "B", and "C", where "B" allows this permission, but "C" explicitly denies it. In this case, the user's ability to view these reports is based on the ordering of these components. If "B" appears before "C", then it will work. In the opposite case, he will not have access.

This may sound complex, but in practice the user interface is quite simple. Two columns are shown on the "Components" tab of the edit screen for each access level. On the left, you have a list of the available components, while on the right are the included components. Between these two columns you have the "Include->" and "<-Remove" buttons, which move selected items between the two lists. As for ordering, the "Up" and "Down" buttons on the far right-hand side of the screen allow you to rearrange selected elements of the "Included" column. The "Go To" button opens the edit screen for the selected component.

Creating a New User ACL

From time to time you will find that the predefined user ACLs (Admin, Helpdesk, and so on) offer too few, or too many, restrictions for a particular class of user. In such a case, it is time to create a new user ACL.

The easiest method is to take an existing access level and create a new one modeled on it, and then modify it to fit your needs. You should examine the permissions granted to the model access level, and verify that you want to grant access to those resources. Next, you can include other components to suit your needs. As a style recommendation, we suggest that you first create a component containing the dependant components you wish to utilize. Finally, create a new user ACL which includes only this new component. Now you can assign this ACL to new users.

The PortaBilling100 ACL management system contains style conventions which you would be well-advised to follow:

- The name of a component should be descriptive, based on the actions which it allows. Examples are "Delete a node", "Currencies read-only", and "Access to Vendor Reports".
- Create a new group for any components or user ACLs which you define, so as to keep them separate from PortaBilling100's built-in ACLs.
- By convention, when defining a new user ACL (for example, "DemoUser"), we append "access" to the name of a component ("DemoUser access") to include any dependant components.

You should now have the skills necessary to implement the PortaBilling100 security model and customize it to suit your business environment.

Default User ACLs

PortaBilling is supplied with the following predefined ACLs:

Name	Description
Root	Super User, read and write access to all PortaBilling

	objects
Admin	Like Root user, but with some limitations: - cannot create new users - cannot modify company info - read-only access to Destinations, Currencies, Nodes
Bookkeeper	Read-only access to billing information (Tariffs, Products); can change balances for Accounts/Customers, block/unblock.; no access to xDRs; access to reports.
Helpdesk	Read-only access to billing information (Tariffs, Products); can modify Customer and Account parameters; access to Trace Call.

Default Customer ACLs

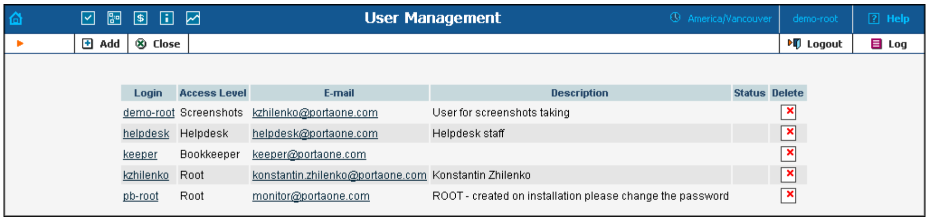
There are two major types of customers: retail customers and resellers. However, since they are both "customers", they share the same ACL type. Obviously, they need quite different sets of permissions (e.g. a reseller needs an extended self-care functionality). PortaBilling is supplied with the following predefined ACLs for customers:

Name	Description
Retail	Access to xDRs, ability to change customer information, make online payments and access information about all accounts under this customer.
Reseller	Ability to set up online payment processors, change rates in the subscriber's tariff, modify parameters of the subscriber's product, create sub-customers and accounts under them, make online payments, create CC staff accounts.
Advanced Reseller	Same as above, plus read-only access to customer's own tariff (the tariff used by the PortaBilling owner to charge the reseller).

Do not assign a reseller ACL to a retail customer or vice versa – this will definitely have undesirable results.

User Management

The User Management screen shows existing users registered in the system, and also allows you to edit current user information or add and delete users. To add a new user, select the **Add** button from the User Management screen. The user list table contains the following information and operations:


User Management
America/Vancouver
demo-root
Help
Add
Close
Logout
Log

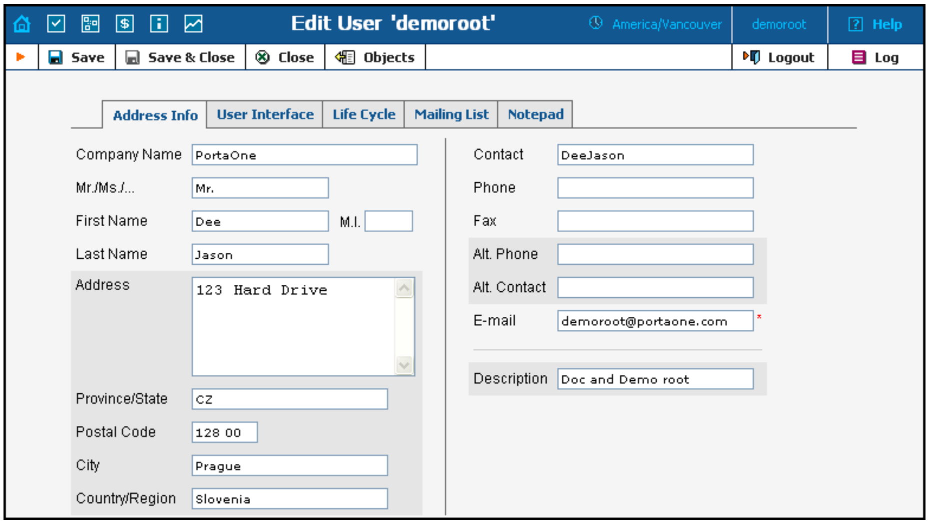
Login	Access Level	E-mail	Description	Status	Delete
demo-root	Screenshots	kzhilenko@portaone.com	User for screenshots taking		☒
helpdesk	Helpdesk	helpdesk@portaone.com	Helpdesk staff		☒
keeper	Bookkeeper	keeper@portaone.com			☒
kzhilenko	Root	konstantin.zhilenko@portaone.com	Konstantin Zhilenko		☒
pb-root	Root	monitor@portaone.com	ROOT - created on installation please change the password		☒

Column	Description
Login	The username for login and user identification. The username provides a link to the edit screen for that particular user.
Access Level	The privilege level or role assigned to the user. See the **Access Levels** section for more information.
E-mail	An e-mail contact for the user. For convenience, this is provided as a link, so you can send an e-mail to the user directly from this screen.
Description	A short description associated with the user.
Delete	A delete button appears next to all users except for the Root user created on installation. This permanently deletes the user from the system.

Add/Edit User

The Add User screen allows you to enter details to create a new user account. The Edit User screen allows you to change details for a particular user account.

Address Info


Edit User 'demoroot'
America/Vancouver
demoroot
Help
Save
Save & Close
Close
Objects
Logout
Log
Address Info
User Interface
Life Cycle
Mailing List
Notepad

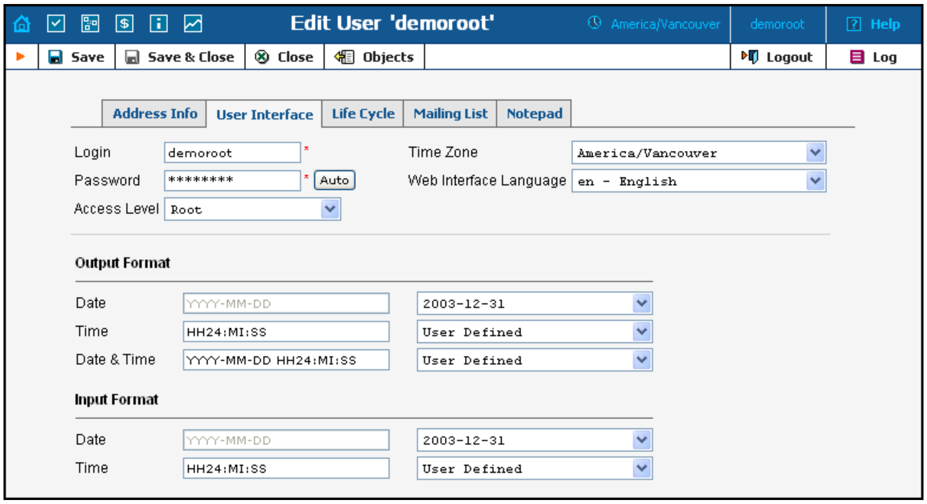
Company Name	PortaOne	Contact	DeeJason
Mr./Ms./...	Mr.	Phone	
First Name	Dee M.I.	Fax	
Last Name	Jason	Alt. Phone	
Address	123 Hard Drive	Alt. Contact	
		E-mail	demoroot@portaone.com *
		Description	Doc and Demo root
Province/State	CZ		
Postal Code	128 00		
City	Prague		
Country/Region	Slovenia		

Mandatory fields for user contact information:

Field	Description

Description	A short description of the user that will be visible on the main User Management screen.
E-Mail	An e-mail contact for this user.

User Interface


Edit User 'demoroot'
America/Vancouver
demoroot
Help
Save
Save & Close
Close
Objects
Logout
Log
Address Info
User Interface
Life Cycle
Mailing List
Notepad
Auto

Login: demoroot
Password: ********
Access Level: Root
Time Zone: America/Vancouver
Web Interface Language: en - English

Output Format

Date: YYYY-MM-DD | 2003-12-31
Time: HH24:MI:SS | User Defined
Date & Time: YYYY-MM-DD HH24:MI:SS | User Defined

Input Format

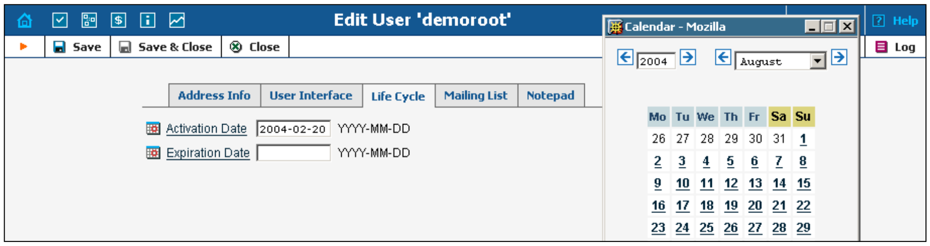
Date: YYYY-MM-DD | 2003-12-31
Time: HH24:MI:SS | User Defined

Field	Description
Login	The new user ID to be used at login and elsewhere throughout the system.
Password	The password for this login. A secure and easy-to-remember password may be automatically generated by pressing the “Auto” button.
Access Level	The privileges or role associated with this user. See the **Access Levels** section for more information.
Time Zone	The time zone in which this user will be operating.
Web Interface Language	The language to be used on the admin web interface for this user.

For a description of the input and output formats, please refer to the **Common Features** section.

Life Cycle

This allows the administrator to set up the user account’s activation and expiration dates.


Edit User 'demoroot'
Save
Save & Close
Close
Help
Log
Address Info
User Interface
Life Cycle
Mailing List
Notepad
Calendar - Mozilla

Activation Date 2004-02-20 YYYY-MM-DD
Expiration Date YYYY-MM-DD

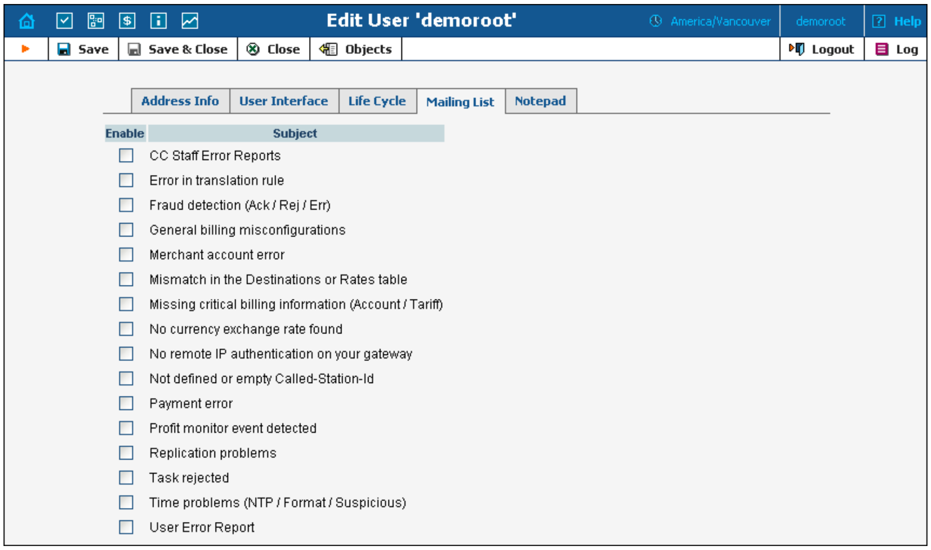
2004 August

Mo	Tu	We	Th	Fr	Sa	Su
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

The account will not expire if the Expiration Date field is left blank.

Mailing List

PortaBilling dispatches e-mail alerts (e.g. error messages and notifications) during normal production. E-mails are dispatched to each user according to the Mailing List settings.


Edit User 'demoroot'
America/Vancouver
demoroot
Help
Save
Save & Close
Close
Objects
Logout
Log
Address Info
User Interface
Life Cycle
Mailing List
Notepad

Enable	Subject
☐	CC Staff Error Reports
☐	Error in translation rule
☐	Fraud detection (Ack / Rej / Err)
☐	General billing misconfigurations
☐	Merchant account error
☐	Mismatch in the Destinations or Rates table
☐	Missing critical billing information (Account / Tariff)
☐	No currency exchange rate found
☐	No remote IP authentication on your gateway
☐	Not defined or empty Called-Station-Id
☐	Payment error
☐	Profit monitor event detected
☐	Replication problems
☐	Task rejected
☐	Time problems (NTP / Format / Suspicious)
☐	User Error Report

To add different notifications for a specific user, check/uncheck one or more boxes on the left for the corresponding Subjects. The available alert types and their conditions of activation are as follows:

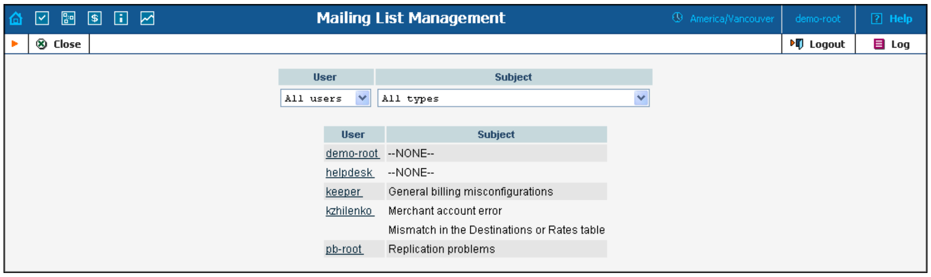
Alert Type	Description
CC Staff Error Reports	Customer care (your reseller's customer support) may discover a problem they are unable to solve themselves, and thus may need to escalate this problem to your support staff. When they send an error report from the CC web interface, it will be received by users subscribed to this mailing list.
Error in translation rule	A translation rule could not be properly applied, due to a programming error.
Fraud detection (Ack / Rej / Err)	Attempt to login more than once using the same debit account number.

General billing misconfiguration	A debit account made a call that cost more than its available funds; an unresolved call was detected (unresolved calls may be normal when they are on-net calls, but in most cases they indicate connection misconfiguration); and so on.
Merchant account error	An error was received from the online payment processor while trying to execute a transaction.
Mismatch in Destinations or Rates table	The cost of a call could not be determined, because no matching rate was found in the specific tariff.
Missing critical billing information (Account/ Tariff)	A call could not be billed due to missing information (e.g. unable to identify the account which is to be charged for the call).
No currency exchange rate found	Unable to do cost/revenue reconciliation for some calls, since no exchange rate is defined for the base currency and currency used for those calls.
No remote IP authentication on your gateway	It seems that your gateway accepts all incoming VoIP calls. See the "*Remote IP authentication*" section in Portabilling100 User Guide vol. I for more details.
Not defined or empty Called-Station-ID	The Called-Station-ID (DNIS) field is empty in the request, so PortaBilling is unable to determine which number was dialed. This might happen due to a firmware problem on Quintum.
Payment error	Unable to perform periodic payment (credit card is blocked or no funds are available).
Profit monitor event detected	Sends an alert if the call cost (amount charged by a vendor) is greater than the revenue (amount charged to the customer).
Replication problems	Database replication may be performing poorly or not at all, so that CDRs for the most recent calls are absent from the slave database.
Task rejected	A deferred task (such as account generation) could not be run.
Time problems (NTP / Format / Suspicious)	This alert may be generated if the time in the accounting record is in the wrong format or seems suspicious (such as a point in the future, or one too far in the past).
User error report	Your customer support may discover a problem they are unable to solve themselves (e.g. only the network administrator can do it) and thus may need to escalate this problem to your technical staff. When they send an error

	report from the web interface, it will be received by the admin users subscribed to this mailing list.

Mailing List

The Mailing List Management page allows you to define which e-mail alerts are to be sent to different users (see **Mailing List Subscription**).


Mailing List Management
America/Vancouver
demo-root
Help
Close
Logout
Log

User	Subject
All users	All types

User	Subject
demo-root	--NONE--
helpdesk	--NONE--
keeper	General billing misconfigurations
kzhilenko	Merchant account error
	Mismatch in the Destinations or Rates table
pb-root	Replication problems

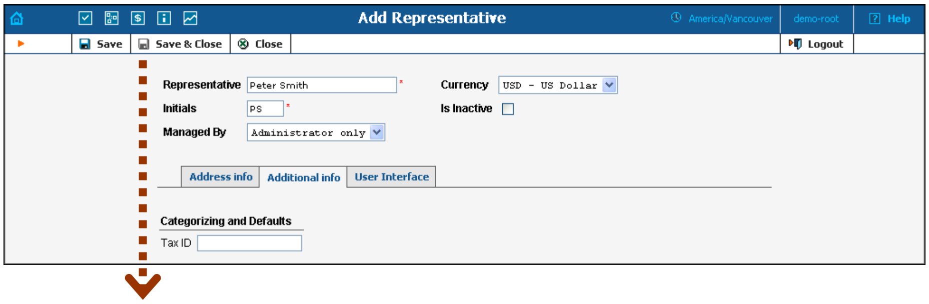
Select a user from the **User** drop-down list to view which mailing lists a particular user is subscribed to. Select a mailing list from the **Subject** drop-down list to view all users subscribed to a particular mailing list.

Representatives

You may need to track income associated with people with whom you have a business relationship. These people may sometimes be employees, while in other cases they are dealers, partners at a law firm, or independent contractors.

NOTE: Representatives do not participate in billing or revenue sharing. They are listed for information purposes only, as required when PortaBilling is integrated into back-office CRM for calculating commissions and the like.

Each sales representative is assigned initials. Their names and initials appear on sales forms, allowing you to associate specific sales reps with specific sales in order to track their income.


Add Representative
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Logout
Address info
Additional info
User Interface

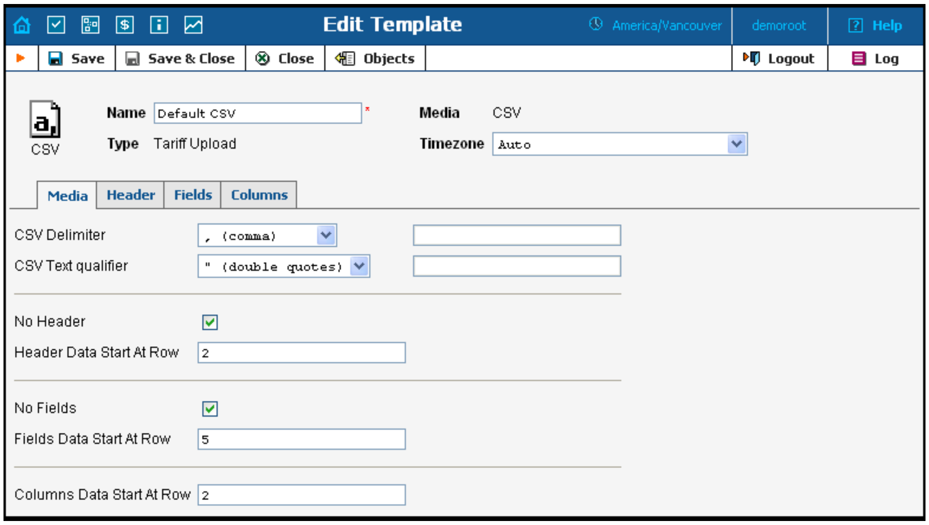
Representative: Peter Smith *
Initials: PS *
Managed By: Administrator only
Currency: USD - US Dollar
Is Inactive: ☐

Categorizing and Defaults
Tax ID:

	🖶 Print format (HTML, PDF) – only applicable for templates of the **Invoice** type
As copy of	PortaBilling is supplied with a set of default templates for each type of document, i.e. for both information upload and download. Documents in print format, i.e. invoices, can only be "downloaded" from the system. After selecting **Type** and **Media**, the list will be populated with the default template (always at the top of the list); all existing templates with the current Type and Media formats will be listed under the "-----" separator.
Managed By (only for Type Invoice)	By default – administrator only. The template can be assigned to a reseller so that it is visible in the list of available invoices on the Customer Self-Provisioning web interface.

To enter editing mode for this template, save your input using the **Save&Close** button. Next, select the template you would like to edit from the Templates window.

Edit Template



Name: Default CSV *
Type: Tariff Upload
Media: CSV
Timezone: Auto

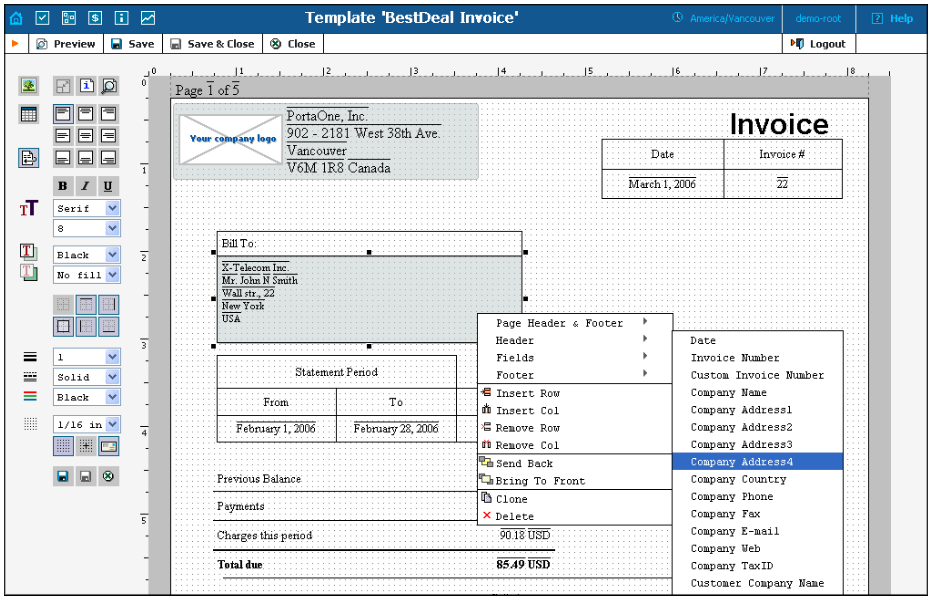
CSV Delimiter: , (comma)
CSV Text qualifier: " (double quotes)
No Header: ☑
Header Data Start At Row: 2
No Fields: ☑
Fields Data Start At Row: 5
Columns Data Start At Row: 2

Once a new template is saved, the document's Media, Type and Managed By properties cannot be changed.

Each Template object consists of several logical components. For example, the Invoice Template's components are Media, Header, Fields, and Footer.

The Media tab is present for all types of templates, and shows the media available for upload or download. For Tariff upload in CSV format, it is important to know what delimiter was used, whether there is a header, or

[redacted]


Template 'BestDeal Invoice'
America/Vancouver
demo-root
Help
Preview
Save
Save & Close
Close
Logout
Page 1 of 5
Your company logo
PortaOne, Inc.
902 - 2181 West 38th Ave.
Vancouver
V6M 1R8 Canada
Invoice
Date
Invoice #
March 1, 2006
22
Bill To:
X-Telecom Inc.
Mr. John N Smith
Wall str., 22
New York
USA
Statement Period
From
To
February 1, 2006
February 28, 2006
Previous Balance
Payments
Charges this period
90.18 USD
Total due
85.49 USD
Serif
8
Black
No fill
1
Solid
Black
1/16 in
Page Header & Footer
Header
Fields
Footer
Insert Row
Insert Col
Remove Row
Remove Col
Send Back
Bring To Front
Clone
Delete
Date
Invoice Number
Custom Invoice Number
Company Name
Company Address1
Company Address2
Company Address3
Company Address4
Company Country
Company Phone
Company Fax
Company E-mail
Company Web
Company TaxID
Customer Company Name

Layout Designer (LD) Quick Start

To launch, click the **Layout Designer** button on the Media tab in the Template Management window. The sliding toolbar on the left side provides most of the controls for manipulating content in the editor window. There are three different states for most of the toolbar icons: normal, active, and not available.

Icon state	Description
☐	**Normal** - Click to activate
▣	**Active** - Click to deactivate
⬚	**Not available**

Icon	Description
🖼	**Add Picture:** Click to select a picture (e.g. your company logo) from a file select window. Click the **Open** button to place the picture on the worksheet. To remove the picture, right-click on it and choose **Remove.** Another way of deleting a picture is to press **Delete** on your keyboard.
⤢	**Lock Aspect:** Fixes image proportions during scale operations.
🔍	**Preview:** Click to preview your work in a browser window.
▦	**Add Table:** Click to place a table on the worksheet. A table can be removed by using the context (right-click) menu or by pressing **Delete** on your keyboard. Click the table cell to make it active. To add another table, click on the worksheet to deactivate the currently active object. Read more about tables below.
☰	**Text Align:** A section of nine buttons used to align text in an

	active table cell.
	Word Wrap
TT	**Text controls:** The tools and selects from this section control font attributes such as font style (bold, italic, underline), font family (serif, sans-serif, cursive, fantasy, monospace), and font size.
T	**Foreground Color:** Change the text color by selecting from this list.
T	**Background Color:** Change the color of the active table cell by selecting from this list.
	Border: A section of six buttons for showing or hiding the border of the active table cell.
≡	**Stroke:** A section of three controls for changing the active cell's border weight, style and color.
	Grid: On by default; click to turn off the grid.
	Snap to Grid: On by default; click to allow arbitrary positioning of elements on the worksheet.
	Envelope Window: Two half-transparent gray boxes displaying the positions of envelope windows; click to turn off.
↶	**Undo:** Click to cancel the last action.
💾	**Save and Close:** For convenience in editing the bottom of the worksheet, these controls duplicate the main toolbar controls.

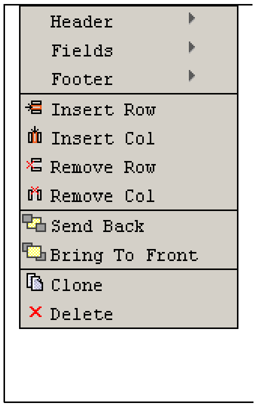
A straight line in the Layout Designer can be simulated by using a table with only one visible border.

Table

The main Layout Designer object is the table, which is a placeholder for all inserted information. A table or a table cell within a table can be moved and scaled by dragging the cell handlers. Double-click a table or a cell within a table to enter cell editing mode, where you can type in or edit a cell's text. To change the attributes of a cell's text, make sure the cell is selected (8 black square handlers are visible) and set the text attributes in the toolbar on the left.

Changing the text attributes of a cell in the toolbar will affect all text in the current cell. To change the attributes of part of the text, enter cell editing mode (double-click), select that part of the text, and use the keyboard shortcuts listed below.

Context Menu

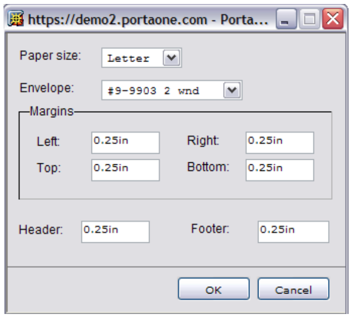

Header
Fields
Footer
Insert Row
Insert Col
Remove Row
Remove Col
Send Back
Bring To Front
Clone
Delete

The context (right-click) menu provides you with greater control over tables and other objects, and allows certain data located in the PortaBilling database to be displayed in the table cell. To show the menu, right-click on a table or cell. The three top elements of the context menu correspond to the template components (tabs); in the case of an invoice, for example, these would be Header, Fields and Footer. Users can also set the order of all objects in the window and clone or delete selected objects.

Select one of the menu elements to activate a submenu containing a list of all the fields specified in the template editing window. The selected item will appear in the selected cell as the item's value. Double-click the cell to enter editing mode; the cell now displays the corresponding variable.

Page/Print Setup

The page context menu (right-click on the worksheet) provides access to the Web-Page Dialog for page, envelope and print setup.


https://demo2.portaone.com - Porta…
Margins
OK
Cancel

Paper size: Letter
Envelope: #9-9903 2 wnd
Left: 0.25in
Right: 0.25in
Top: 0.25in
Bottom: 0.25in
Header: 0.25in
Footer: 0.25in

Open your browser prior to printing. In yo

Double-window envelopes

Envelope	Window Size	Location	Placement
#9-9903	TOP WINDOW		
	3 7/8” x 8 7/8”	From Left	3/8”
		From Top	1/2”
3 5/8” x 8 5/8”	BOTTOM WINDOW		
	1” x 4”	From Left	7/8”
		From Bottom	5/8”
# 8-5/8	TOP WINDOW		
	7/8” x 3-1/2”	From Left	5/8”
		From Bottom	2 1/4”
3 5/8” x 8 5/8”	BOTTOM WINDOW		
	1” x 4”	From Left	5/8”
		From Bottom	5/8”
#9-13036	TOP WINDOW		
	7/8” x 3-1/4”	From Left	3/8”
		From Bottom	2-1/2”
3 7/8 x 8 7/8”	BOTTOM WINDOW		
	1-1/8” x 4-1/2”	From Left	1/2”
		From Bottom	7/16”
#9-13037	TOP WINDOW		
	7/8” x 3-1/4”	From Left	3/8”
		From Bottom	2-1/2”
3 7/8 x 8 7/8”	BOTTOM WINDOW		
	1” x 4”	From Left	1/2”
		From Bottom	3/4”
#9-13038	TOP WINDOW		
	7/8” x 3-1/2”	From Left	3/8”
		From Bottom	2-3/8”
3 7/8 x 8 7/8”	BOTTOM WINDOW		
	1-1/8” x 4”	From Left	3/8”
		From Bottom	5/8”

NOTE: Envelope #9-9903 (3 7/8” x 8 7/8”) is QuickBooks compatible.

Envelope Formats: Europe

Format	Size [mm]	Content Format
C6	114 × 162	A4 folded twice = A6
DL	110 × 220	A4 folded twice = 1/3 A4
C6/C5	114 × 229	A4 folded twice = 1/3 A4
C5	162 × 229	A4 folded once = A5
C4	229 × 324	A4

DIN 680 specifies that a transparent address window should be 90 × 45 mm in size, and the window’s left edge should be located 20 mm from the left edge of the envelope. For C6, DL, and C6/C5 envelopes, the bottom edge of the window should be 15 mm from the bottom edge of the envelope. For C4 envelopes, the top edge of the window should be either 27 or 45 mm from the top edge of the envelope.

Keyboard Shortcuts

Shortcut	Action
Arrow keys	Move objects with grid size increments.
Ctrl - arrow key	Use to scale table cells or images with current grid size increments.
cell editing mode	
Ctrl-A	Selects all objects in the Template window if nothing is selected, or selects all text in an active table cell.
Ctrl-C	Copy selected text.
Ctrl-V	Paste clipboard text starting from the current cursor position.
Ctrl-X	Cut highlighted text.
Ctrl-I	Change selected text style to *Italic*.
Ctrl-B	Change selected text style to **Bold**.
Ctrl-U	Change selected text style to Underline.
Ctrl-K	Hyperlink selected text (opens hyperlink editing dialog).

Netscape or Mozilla users may experience the lack of a movable cursor allowing them to select text from the keyboard in cell editing mode. Press the **F7** button to turn the edit cursor (caret browsing) on and off.

Users with a small screen resolution may enjoy the benefits of their browser's full-screen mode. Simply press the **F11** button to switch your Mozilla, Netscape or IE into full-screen mode.

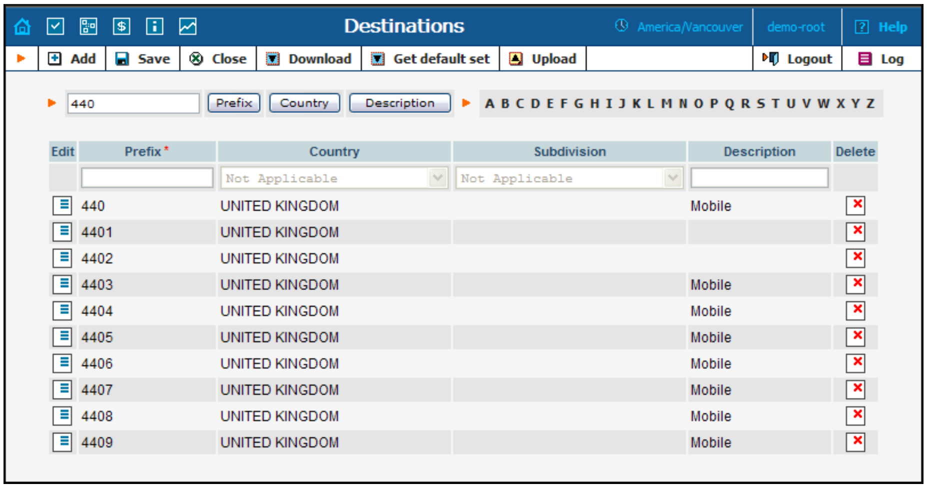
Service types

Service types define which services you offer to your customers. Each service type allows you to specify how information about service use is gathered, which parameters are used to calculate charges and, finally, what the rates are for each service.

For your convenience, we now provide a set of pre-defined service types with all the required parameters. Then you can easily change the service name to make it more descriptive for your administrators and customers.

Editing Service Types Online

Choose the service type you wish to edit from the list by clicking the **Edit** icon. The content of the row is copied into the Destinations form above, and the **Save Edit** icon appears in the first column. Choose Subdivision from the refreshed drop-down list and type in the Description, if any. Save your work by clicking the **Save Edit** icon.



Edit	Prefix*	Country	Subdivision	Description	Delete
		Not Applicable	Not Applicable		
≡	440	UNITED KINGDOM		Mobile	☒
≡	4401	UNITED KINGDOM			☒
≡	4402	UNITED KINGDOM			☒
≡	4403	UNITED KINGDOM		Mobile	☒
≡	4404	UNITED KINGDOM		Mobile	☒
≡	4405	UNITED KINGDOM		Mobile	☒
≡	4406	UNITED KINGDOM		Mobile	☒
≡	4407	UNITED KINGDOM		Mobile	☒
≡	4408	UNITED KINGDOM		Mobile	☒
≡	4409	UNITED KINGDOM		Mobile	☒

Column	Description
Name	Service type name (currently this is the only column which can be changed by the user).
Based On	Specifies a time-based or quantity-based service type.
Base Unit	Abbreviation for units in which service use is measured (your network nodes will report values to billing in these units).
Billing Unit	Abbreviation for units used to calculate service charges. You will use these units to specify your rates, and usage details in xDRs will be presented in these units.
Billing:Base Ratio	If billing units are different from base units, this parameter defines how many base units make up one billing unit (for instance, 1024 bytes makes 1 kilobyte). This parameter is extremely important, as it affects calculations in all xDRs for this service. If you decide to deploy a new service with a different ratio between units (e.g. 1 kilobyte equaling 1000 bytes), a new service type must be created before you attempt to do any further configuration.

Destinations

Destinations are a list of all possible phone number prefixes to be used in your system, which will later be employed to create price lists (Tariffs). For convenience, destinations are grouped in alphabetical order by country.

Destinations may be edited and, if a destination is not being used in any tariff, it will also have a Delete button. Of course, it is not necessary to include every destination in a given price list; only enter the prefixes (destinations) used by this particular vendor or customer.

PortaBilling can support different numbering plans, but it is highly recommended to keep all of your destinations in the E.164 numbering space. The Destinations table contains the valid E.164 prefixes. Different standardization and governmental bodies control the E.164 numbering space, and some private numbering spaces also exist.

Click here to view the Official ITU Dialing Procedures document (PDF)

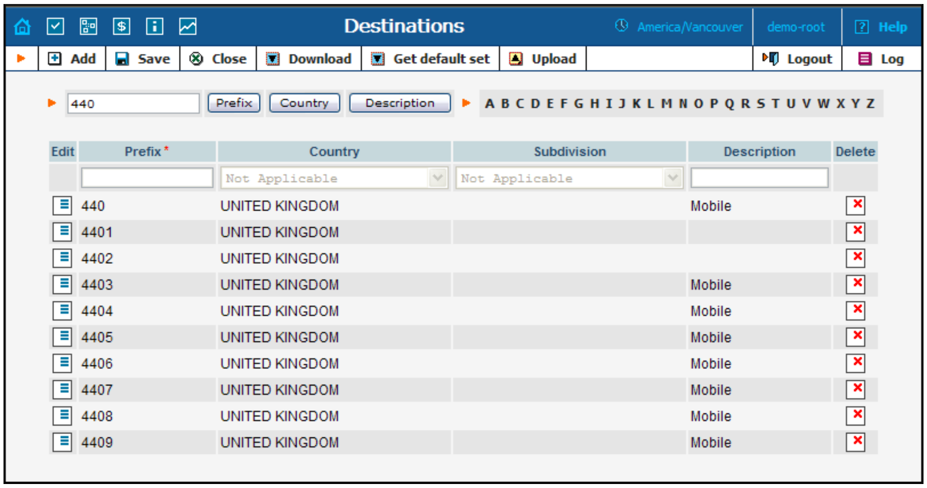
PortaBilling is supplied with a file containing a basic set of destinations. It covers all countries of the world and some of the major destinations in each country, linking prefix information to:

- country (if applicable)
- subdivision (if applicable)
- description

Of course, you can edit the supplied destinations list according to your needs. Also, you can always add more destinations later, if needed.

Add/Edit Destinations Online

To add new destinations, click the **Add** button. The **Save New** icon will appear on the Destinations form. Enter the prefix and choose a country from the drop-down list. After selecting the country, the subdivision field will be refreshed. Choose a subdivision if necessary. Click the **Save New** icon to save the new destination.



Edit	Prefix*	Country	Subdivision	Description	Delete
		Not Applicable	Not Applicable		
	440	UNITED KINGDOM		Mobile	☒
	4401	UNITED KINGDOM			☒
	4402	UNITED KINGDOM			☒
	4403	UNITED KINGDOM		Mobile	☒
	4404	UNITED KINGDOM		Mobile	☒
	4405	UNITED KINGDOM		Mobile	☒
	4406	UNITED KINGDOM		Mobile	☒
	4407	UNITED KINGDOM		Mobile	☒
	4408	UNITED KINGDOM		Mobile	☒
	4409	UNITED KINGDOM		Mobile	☒

To edit an existing destination, enter a prefix, country or description (i.e. proper, mobile, etc.) in the search field and click the corresponding button. You can also select a country alphabetically from the top right-hand part of the interface. Choose the destination you wish to edit from the list by clicking the **Edit** icon. The content of the row will be copied into the Destinations form above, and the **Save Edit** icon will appear in the first column. Choose Subdivision from the refreshed drop-down list and type in the Description, if any. Save your work by clicking the **Save Edit** icon.

Destination Access Levels

User Type	Access Description
Root, or if ACL includes **Use country code during upload**	Full access
ACL which allows read/write operations on Destinations, e.g. **Admin**	Can perform all types of operations with destinations *except* for manually specifying a country during upload. If Admin uploads a new destination, the system chooses the appropriate country automatically, using the longest match from the available destinations.
all other types	Read-only

Destination Upload/Download Procedures

Upload

The CSV file header contains the following fields: Action, Prefix, iso_3166_1_a2, Description.

Field	Description
Action	Add or delete; encoded as ”+” and “–” or ”add” and “remove”. **Note:** Only unused destinations that do not appear in the Rates table can be deleted. If the action is ”+” and the prefix is already in Destinations, then the update action will be performed.
Prefix	Value to be stored in Destinations.destination.
Two-letter ISO Country Code	Value to be stored in Destinations.iso_3166_1_a2. **Note:** *Ignored* if the uploader is not Root or does not have “Use country code during upload” in his ACL; in this case, the system chooses the appropriate country automatically, using the longest match from the available destinations. If the Country property is not applicable, then the value must be encoded as N/A. If the field is empty and the uploader’s access level is Root, then the system chooses the appropriate country automatically, using the longest match from the available destinations.
Description	Value to be stored in Destinations.description.

Download

The CSV file header contains the following fields: Action, Prefix, Country Code (iso_3166_1_a2), Description.

Field	Description
Action	Add or delete, encoded as “+”.
Prefix	Missing prefix
All other fields	Empty

NOTE: For tariff uploads, new destinations will be e-mailed as a CVS attachment in an error report using the Destinations Upload format: Action, Prefix, Country Code (iso_3166_1_a2), Description.

Uploading Destinations

The system is supplied with a predefined set of countries and the most common destinations for those countries. If required, new countries may be inserted into the database manually. When uploading new destinations, a super user can specify the country using its ISO country code. If empty, the system tries to find a country via existing destinations.

For example, if “16045” is uploaded, the system finds that “1604” is already in the database as “Canada”. If it is not possible to find the country in this way, or if the country is “N/A”, the destination will not be imported. An uploaded file with such a destination will be sent back for correction in a format suitable for upload.

PORT

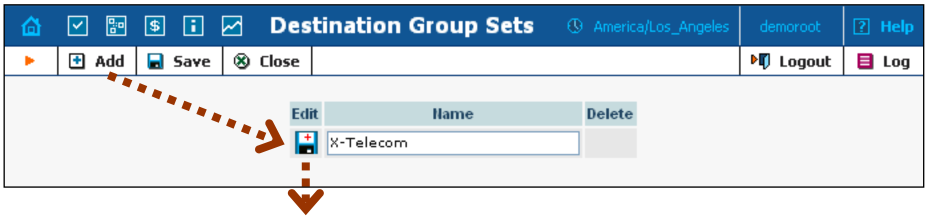
[illegible] Cyrillic, in the case of Uzbekistan) are also given. The abbreviations and language codes (ISO 639) used in the header preceding the subdivision list for each country are explained in annexes to the standard.

Destination Group Sets

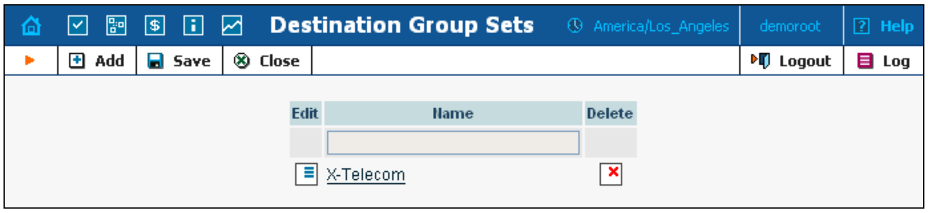
Very often a logical destination (e.g. Czech Republic – Mobile) will consist of multiple prefixes (420601, 420602, 420604, 420732 and so on). It would be quite inconvenient to repeat the same "create a new rate" operation for every individual prefix, since all of the price parameters are the same. Thus you could create a destination group "CZ-Mobile" and then perform "create a new rate" only once, with the rates for all of the prefixes being created automatically. However, since different carriers might include different prefixes in the "Czech Republic – Mobile" category, we need to be able to maintain different sets of destination groups.

Creating a New Destination Group Set

To add a new destination group set, click the **Add** button. The **Save New** . icon will appear next to the name.

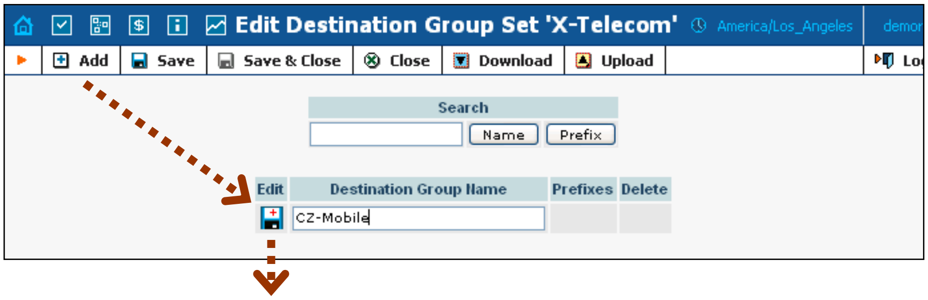

Destination Group Sets
America/Los_Angeles
demoroot
Help
Add
Save
Close
Logout
Log
Edit
Name
Delete

X-Telecom

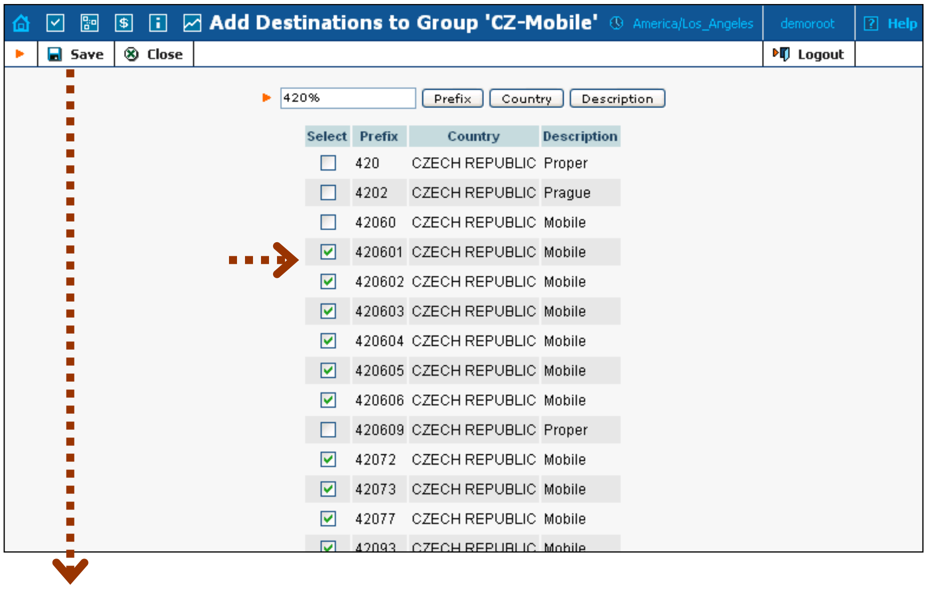

Destination Group Sets
America/Los_Angeles
demoroot
Help
Add
Save
Close
Logout
Log
Edit
Name
Delete
X-Telecom

After the destination group set has been saved, click on the hyperlinked name to manage the destination groups included in this set.

Creating a Destination Group

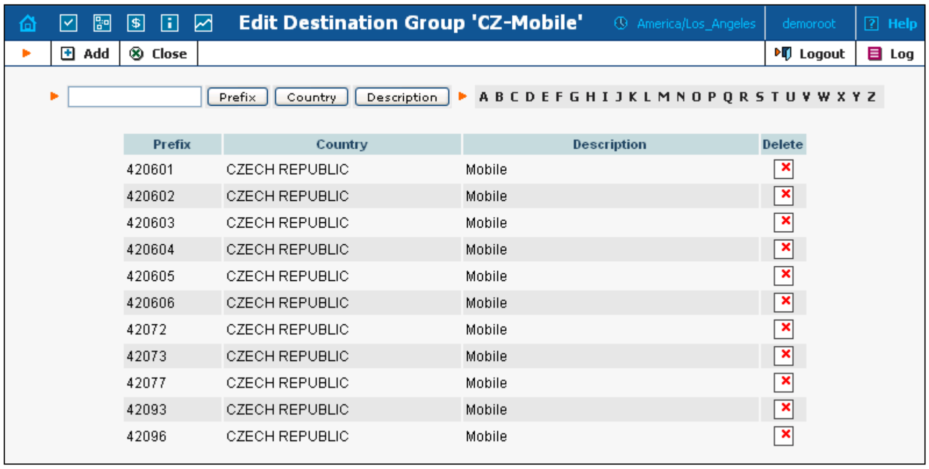

Edit Destination Group Set 'X-Telecom'
America/Los_Angeles
demor
Add
Save
Save & Close
Close
Download
Upload
Lo
Search
Name
Prefix
Edit
Destination Group Name
Prefixes
Delete

CZ-Mobile

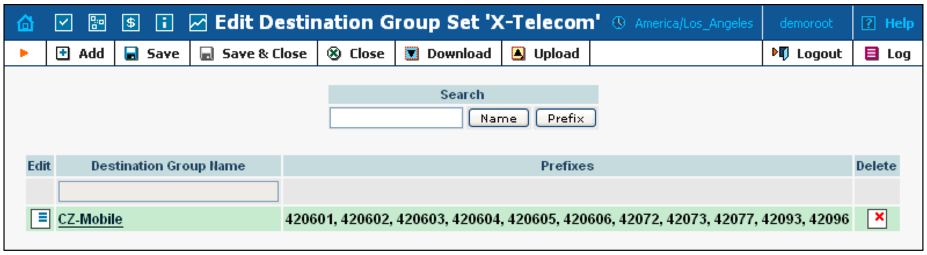

Add Destinations to Group 'CZ-Mobile'
America/Los_Angeles
demoroot
Help
Save
Close
Logout
Prefix
Country
Description

420%

Select	Prefix	Country	Description
☐	420	CZECH REPUBLIC	Proper
☐	4202	CZECH REPUBLIC	Prague
☐	42060	CZECH REPUBLIC	Mobile
☑	420601	CZECH REPUBLIC	Mobile
☑	420602	CZECH REPUBLIC	Mobile
☑	420603	CZECH REPUBLIC	Mobile
☑	420604	CZECH REPUBLIC	Mobile
☑	420605	CZECH REPUBLIC	Mobile
☑	420606	CZECH REPUBLIC	Mobile
☐	420609	CZECH REPUBLIC	Proper
☑	42072	CZECH REPUBLIC	Mobile
☑	42073	CZECH REPUBLIC	Mobile
☑	42077	CZECH REPUBLIC	Mobile
☑	42093	CZECH REPUBLIC	Mobile


Edit Destination Group 'CZ-Mobile'
America/Los_Angeles
demoroot
Help
Add
Close
Logout
Log
Prefix
Country
Description
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Prefix	Country	Description	Delete
420601	CZECH REPUBLIC	Mobile	☒
420602	CZECH REPUBLIC	Mobile	☒
420603	CZECH REPUBLIC	Mobile	☒
420604	CZECH REPUBLIC	Mobile	☒
420605	CZECH REPUBLIC	Mobile	☒
420606	CZECH REPUBLIC	Mobile	☒
42072	CZECH REPUBLIC	Mobile	☒
42073	CZECH REPUBLIC	Mobile	☒
42077	CZECH REPUBLIC	Mobile	☒
42093	CZECH REPUBLIC	Mobile	☒
42096	CZECH REPUBLIC	Mobile	☒


Edit Destination Group Set 'X-Telecom'
America/Los_Angeles
demoroot
Help
Add
Save
Save & Close
Close
Download
Upload
Logout
Log
Search
Name
Prefix

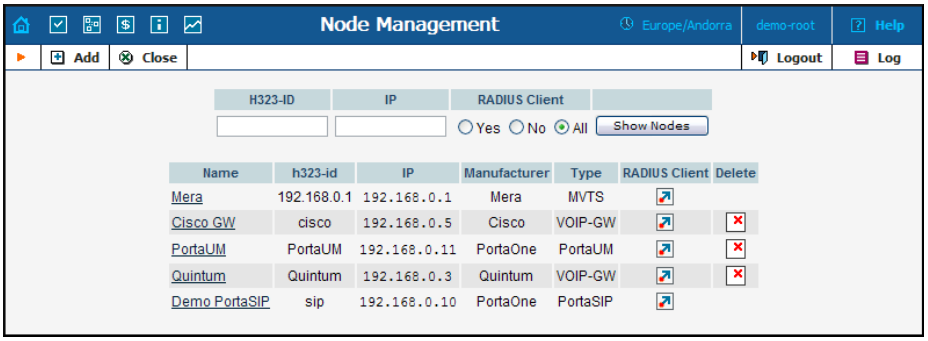
Edit	Destination Group Name	Prefixes	Delete
☰	CZ-Mobile	420601, 420602, 420603, 420604, 420605, 420606, 42072, 42073, 42077, 42093, 42096	☒

3. Networking

Nodes

The Node Management screen enables registration, removal and maintenance of the gateway list. Nodes are gateways which provide accounting records to PortaBilling or exchange authentication/ authorization requests with it. On this screen the user is provided with a list of all nodes currently registered.

The search form at the top of the screen allows filtration by any combination of H.323 ID, IP address and/or whether or not the node is a Radius client. Providing any of this information and selecting **Show Nodes** will refresh the Node listing according to the new filtration criteria.



H323-ID	IP	RADIUS Client
		○ Yes ○ No ● All

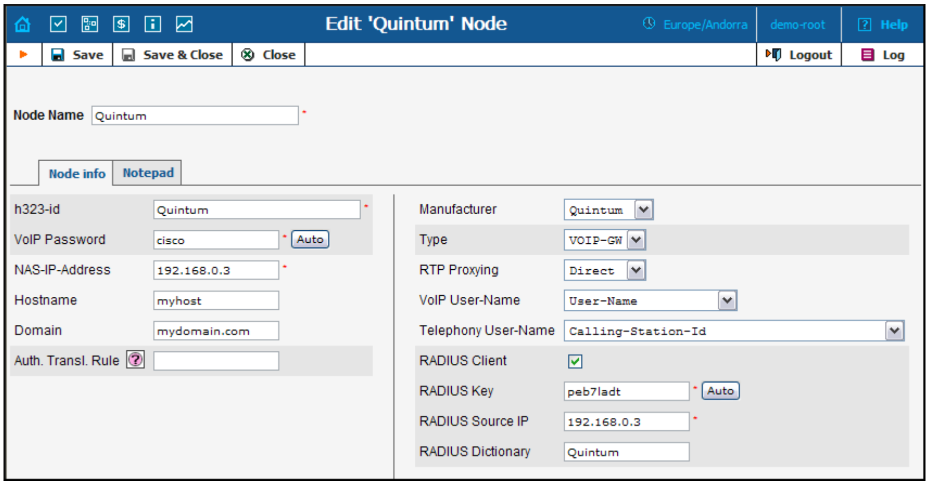
Name	h323-id	IP	Manufacturer	Type	RADIUS Client	Delete
Mera	192.168.0.1	192.168.0.1	Mera	MVTS	↗	
Cisco GW	cisco	192.168.0.5	Cisco	VOIP-GW	↗	✕
PortaUM	PortaUM	192.168.0.11	PortaOne	PortaUM	↗	✕
Quintum	Quintum	192.168.0.3	Quintum	VOIP-GW	↗	✕
Demo PortaSIP	sip	192.168.0.10	PortaOne	PortaSIP	↗	

To add a new node to the system, click **Add** in the toolbar. The following information is provided within the listing:

Column	Description
Name	Logical name of the node. This is also a link to the edit screen for the given node.
h323-id	Registered H.323 ID of the node.
IP	IP address of the node.
Manufacturer	Choose “Cisco”, “Quintum”, “PortaOne” or another from the drop-down list, depending on the manufacturer of the equipment.
Type	Select what role the node plays in the network from the drop-down list. The options are as follows (according to Cisco naming conventions): • `VOIP-GW`: the node functions as a gateway • `H323-GW`: the node is an H.323 proxy • `H323-GK`: the node is an H.323 gatekeeper • PortaSIP: PortaSIP server • PortaUM: PortaUM server

	• MVTS: Mera Networks VoIP Softswitch

Add/Edit Node



Node Name: Quintum

h323-id: Quintum
VoIP Password: cisco
NAS-IP-Address: 192.168.0.3
Hostname: myhost
Domain: mydomain.com
Auth. Transl. Rule:
Manufacturer: Quintum
Type: VOIP-GW
RTP Proxying: Direct
VoIP User-Name: User-Name
Telephony User-Name: Calling-Station-Id
RADIUS Client: ☑
RADIUS Key: peb7ladt
RADIUS Source IP: 192.168.0.3
RADIUS Dictionary: Quintum

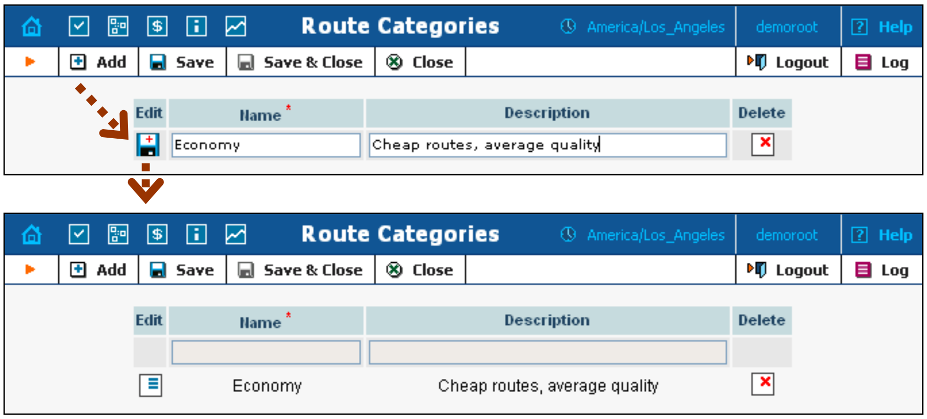
In order to register a new node in PortaBilling or edit an existing one, the following information must be provided:

Field	Description
Node Name	The logical name of the node for use within PortaBilling
Node ID	Node identifier used by the terminating node within your network of trusted nodes in order to identify the originating gateway which is attempting to send a call. Enter the ID used for this node. The default behavior is to authenticate a node by its IP address; however, this may be changed if you use your own custom application to handle incoming VoIP calls. This field is available only if "Node ID" is enabled in advanced features. If you are not sure what value to choose, enter **the same value as in the NAS-IP-Address**.
h323-id	The H.323 ID which the gateway is configured to use. A correct H.323 ID is important if you use node authentication (normally via GK) and proxy/GK billing. Even if you do not use GK/proxy billing, make sure the value you enter here matches the "hostname" parameter configured on the gateway, since that value is returned from this node in the `h323-gw-id` attribute, and the ability to match these values with data in billing significantly simplifies troubleshooting.
VoIP Password	The password which will be used for remote IP authentication of calls originated on this node. If you are using the Cisco default

	Note that this parameter is only applicable to Quintum gateways.
Radius Client	Check this box if the node will provide accounting records to the Radius server.
Radius Key	This input will be available only if the node has been designated as a Radius client. This is the authentication key for all Radius interactions. An easy-to-remember password may be generated automatically by selecting the **Auto** button.
Radius Source IP	More than one interface can be present on the node; specify the IP address of the one that communicates with the Radius server.

Route Categories

This screen allows you to define new categories into which you can divide your available routes. To create a new category, select **Add** from the toolbar.



Economy

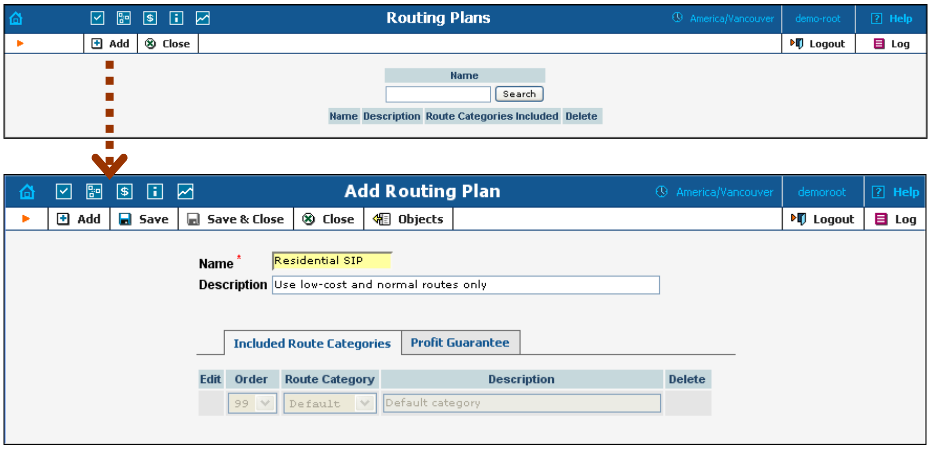
Cheap routes, average quality

Column	Description
Name	Name of the route category. This is the name you will see in the select menu when assigning a route category for the rate.
Description	A description of this route category.

If you do not wish to define any custom route categories, the **Default** route category is always available.

Routing Plans

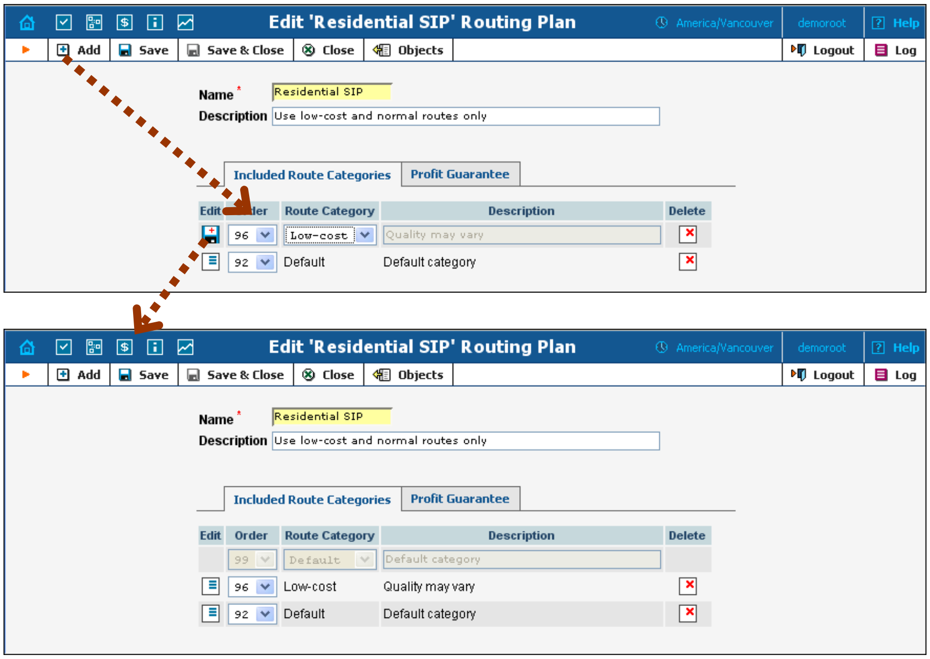
A routing plan is a combination of route categories in a specific order. It defines which categories of vendors will be available for termination and in what sequence.


Routing Plans
America/Vancouver
demo-root
Help
Add
Close
Logout
Log
Name
Search
Name Description Route Categories Included Delete
Add Routing Plan
demoroot
Save
Save & Close
Objects
Included Route Categories
Profit Guarantee

Name: Residential SIP
Description: Use low-cost and normal routes only

Edit	Order	Route Category	Description	Delete
	99	Default	Default category	

After a routing plan has been created, you can specify which route categories will be included in it. To add a new route category, select **Add** from the toolbar, then click the **Save New** . icon to save this row.


Edit 'Residential SIP' Routing Plan
America/Vancouver
demoroot
Help
Add
Save
Save & Close
Close
Objects
Logout
Log
Included Route Categories
Profit Guarantee

Name: Residential SIP
Description: Use low-cost and normal routes only

Edit	Order	Route Category	Description	Delete
	96	Low-cost	Quality may vary	☒
	92	Default	Default category	☒

Name: Residential SIP
Description: Use low-cost and normal routes only

Edit	Order	Route Category	Description	Delete
	99	Default	Default category	
	96	Low-cost	Quality may vary	☒
	92	Default	Default category	☒

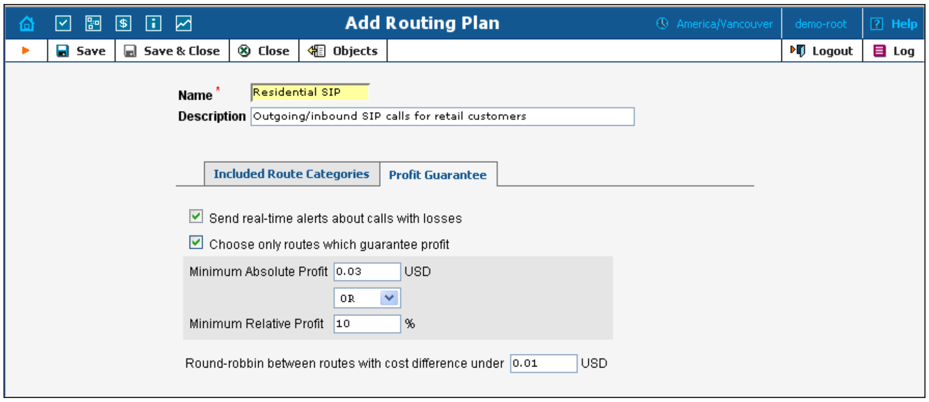
You can change the route category order by choosing an **Order** number. Remember that if a route category is not included in the routing plan, a customer with this routing plan will not have access to such routes.

Click the 💾 **Save** icon to make your changes take effect.

Please note that a larger value in the **Order** column pushes the given route category towards the top of the route list (i.e. 99 is the first route category which will be tried).

Profit Guarantee

On this tab you can specify how the system chooses routes for call termination, in order to maximize your profits.



Name * Residential SIP
Description Outgoing/inbound SIP calls for retail customers

☑ Send real-time alerts about calls with losses
☑ Choose only routes which guarantee profit
Minimum Absolute Profit 0.03 USD
OR
Minimum Relative Profit 10 %
Round-robbin between routes with cost difference under 0.01 USD

If you switch off the "profit guarantee" in PortaBilling, it is possible that your carrier will charge you more than you have charged your customer. (Sometimes these situations can arise even with "profit guarantee" switched on, e.g. when a random surcharge was not triggered, or if you charged your customer for just a few seconds, but were charged by a vendor for a full minute, due to different time rounding increments). Such events can occur from time to time in any system, but it is important to constantly monitor them and take immediate action if they start to appear frequently.

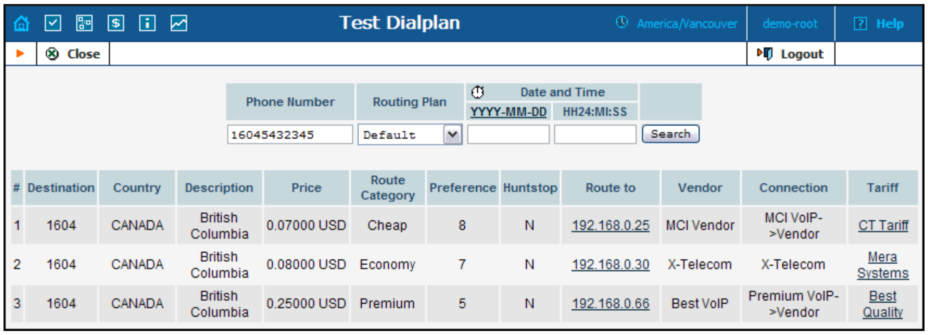
Field	Description
Send Real-time Alerts about Calls with Losses	Turn this option on in order to receive real-time email alerts whenever a customer (with this routing plan assigned) makes a call on which you lose money.
Choose Only Routes Which Guarantee Profit	When calculating a routing list for a customer with this routing plan, compare the price used to charge the customer with the termination cost of each vendor. If the vendor's costs are higher than the customer's rate, exclude the vendor from the list (see note below).
Minimum Absolute Profit	Allows you to create a more aggressive profit guarantee route selection: the vendor's cost per minute must be lower than the customer's rate by at

	least the amount specified. (Amounts are specified in your base currency).
Minimum Relative Profit	In some cases, specifying the amount of profit per minute does not yield the desired results, e.g. for risky destinations such as Somalia you would like to get at least $0.10 per minute, yet $0.10 on calls to the US is simply not feasible, since you charge your customers only $0.05/minute. In this case, you can use a relative threshold, so that for expensive destinations the profit must be high, while for low-cost destinations a small profit is acceptable.
Combination of Absolute and Relative Profit Parameters	You can specify that a route must satisfy both conditions, i.e. both absolute and relative profit, or at least one.
Round-robin between Routes with Cost Difference under	If you would like to share the load among several carriers where the difference in cost is insignificant (e.g. carrier A charges you $0.023 and carrier B $0.025), specify the maximum allowed threshold for two carriers to be granted the same priority in LCR.

PortaBilling allows at least two different price per minute values for rating (potentially, you can have an unlimited set of different prices applied within the same call when you use a rating formula). However, for comparison purposes only one specific value should be used. PortaBilling uses the value of the **Price_Next** parameter for profit guarantee calculations. In order for the profit guarantee to work properly when you use rate formulas to charge your customers, make sure that you populate **Price_Next** in the customer's rates with a meaningful value.

Test Dialplan

This screen allows users to test a dialplan for a specific telephone number or certain destinations at any moment in time.



Phone Number	Routing Plan	Date and Time YYYY-MM-DD	HH24:MI:SS
16045432345	Default		

#	Destination	Country	Description	Price	Route Category	Preference	Huntstop	Route to	Vendor	Connection	Tariff
1	1604	CANADA	British Columbia	0.07000 USD	Cheap	8	N	192.168.0.25	MCI Vendor	MCI VoIP->Vendor	CT Tariff
2	1604	CANADA	British Columbia	0.08000 USD	Economy	7	N	192.168.0.30	X-Telecom	X-Telecom	Mera Systems
3	1604	CANADA	British Columbia	0.25000 USD	Premium	5	N	192.168.0.66	Best VoIP	Premium VoIP->Vendor	Best Quality

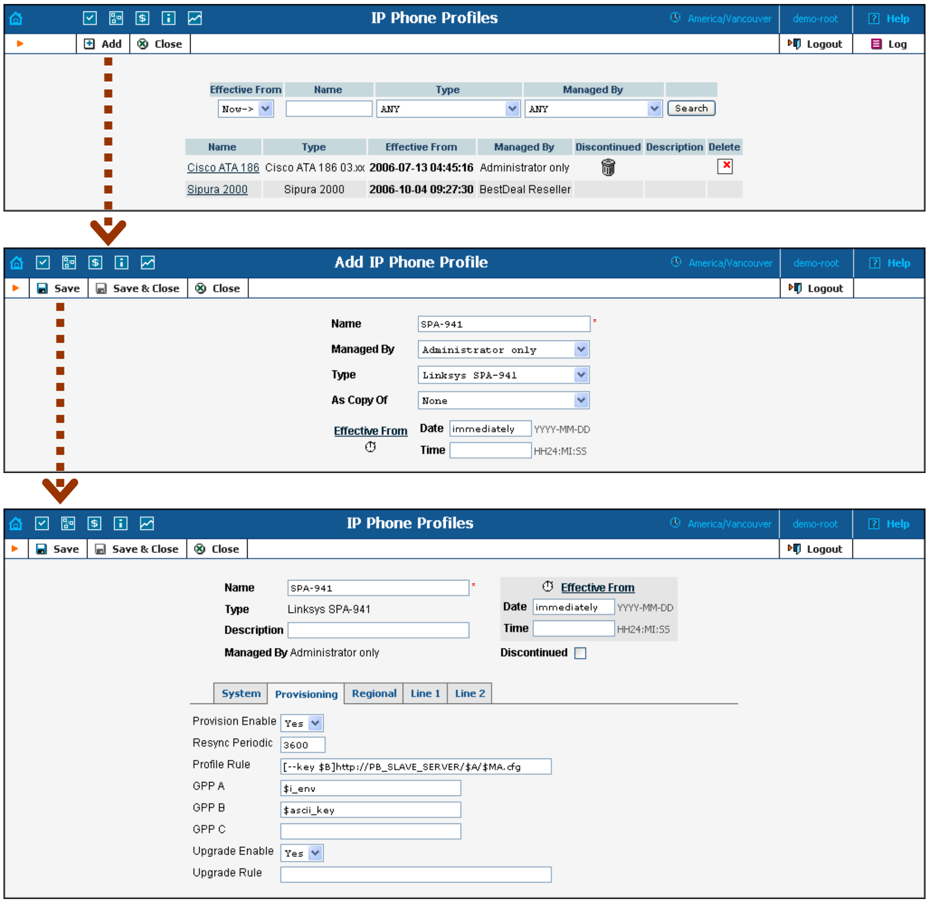
To test a dialplan, type a number in the Phone Number field. The search can be performed in real time: select the ⏱ stopwatch icon or click the date input format link to set a date using the pop-up calendar.

Column	Description
Ctrl#	Sequential number of this route.
Destination	Matching destination from the corresponding tariff.
Country	Country where the tested destination is located.
Description	Destination description.
Price	Next interval price for the given destination (per minute).
Route Category	Route category for this route. See the Route Categories section for more info.
Preference	Routing preference for this destination. See the Call Routing section of the PortaBilling User Guide for more info.
Huntstop	If one of the routes has huntstop enabled, then all routes with a lower preference will be ignored.
Route to	The node (or remote gateway IP) where the call will be routed. Click the link to open the connection screen.
Vendor	Call terminating vendor.
Connection	Description of the vendor connection.
Tariff	The tariff used to bill this call. Click the link to open the tariff screen.

IP Phone Profiles

IP phone profiles and the IP phone inventory allow service providers to reconfigure a large number of end-user devices before sending them to customers, as well as those already on a customer's premises. Instead of entering the same values for codec, server address and the like into each of a thousand user agents, you can simply create a profile which will describe all of these parameters. After that, PortaBilling automatically creates a configuration file for each user agent using account-specific parameters such as ID or password, which it will then fetch (for instance, from a TFTP server) and update.

If you decide later to change the address of the SIP server, you need only update it once in the profile in order for new configuration files to be built for each user agent. The user agents will then fetch them next time they go online. The config file is specific to each user agent since it contains information such as username and password, and so the user agent must fetch his own designated config file.



Effective From	Name	Type	Managed By
Now->		ANY	ANY

Name	Type	Effective From	Managed By	Discontinued	Description	Delete
Cisco ATA 186	Cisco ATA 186 03.xx	2006-07-13 04:45:16	Administrator only			☒
Sipura 2000	Sipura 2000	2006-10-04 09:27:30	BestDeal Reseller			

Name: SPA-941 *
Managed By: Administrator only
Type: Linksys SPA-941
As Copy Of: None
Effective From: Date immediately YYYY-MM-DD; Time HH24:MI:SS

Name: SPA-941 *
Type: Linksys SPA-941
Description:
Managed By: Administrator only
Effective From: Date immediately YYYY-MM-DD; Time HH24:MI:SS
Discontinued ☐

Provision Enable: Yes
Resync Periodic: 3600
Profile Rule: [--key $B]http://PB_SLAVE_SERVER/$A/$MA.cfg
GPP A: $i_env
GPP B: $ascii_key
GPP C:
Upgrade Enable: Yes
Upgrade Rule:

Profile list mode:

Column	Description
Name	Logical name of the profile.
Type	Telephone adaptor or SIP phone.
Effective From	Date and time when the profile becomes effective.
Managed By	**Administrator only** (default) means that this profile will be used for your direct customers and is accessible only to your administrators. Select a PortaBilling reseller to assign this profile for use by a particular reseller.
Discontinued	Indicates that the current profile is no longer in use.
Description	Short text description of the profile.
Delete	The delete icon is only visible when the current profile's effective date has not arrived yet.

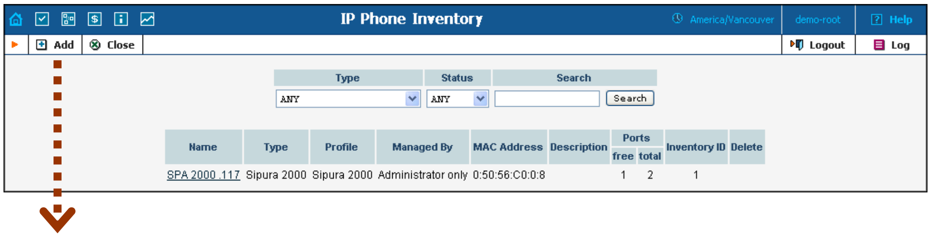
Add Profile mode:

Column	Description
As copy of	Similar to templates; a user can create new profiles using previously created ones, so there is no need to re-enter a large amount of information.
Effective From	Set the time when the profile is to become effective. Click the stopwatch icon for the profile to become effective immediately.

In Edit mode, the Profile Management screen will differ depending on the UA.

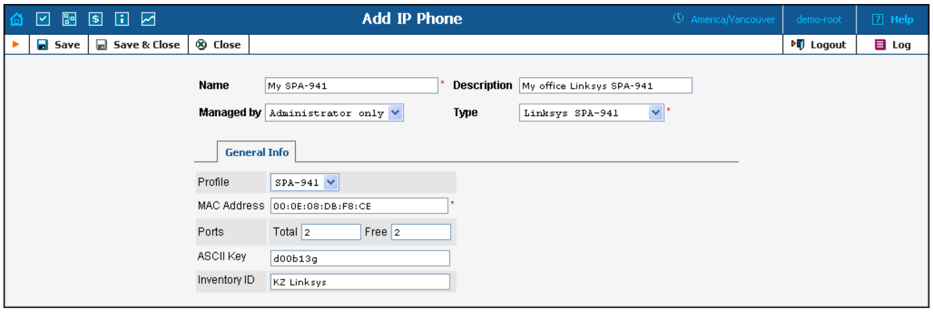
IP Phone Inventory

The IP phone inventory allows you to keep track of IP devices (SIP phones, SIP ATAs, etc.) which are distributed to your customers. You will assign a profile that defines general configuration settings for each device (preferred codecs, address of the SIP server, etc). You can then assign a specific account (basically representing a phone number) to a specific port (phone line) on the IP phone. PortaBilling will create a config file for auto-provisioning all of these devices, thus allowing you to easily manage thousands of user IP phones remotely.



Type	Status	Search
ANY	ANY	

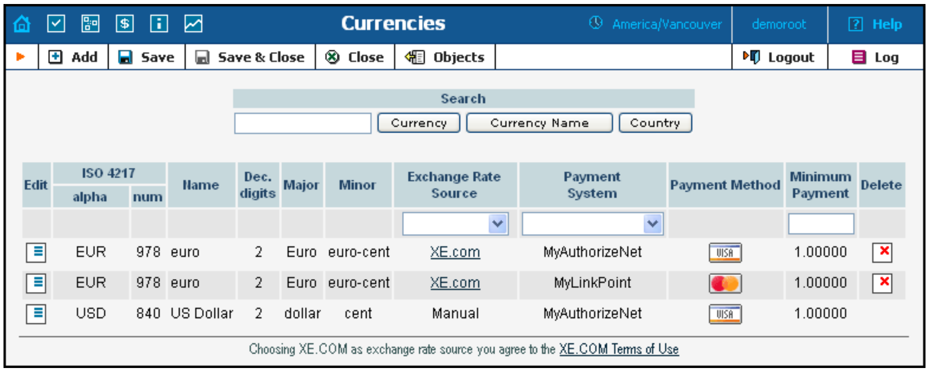
Name	Type	Profile	Managed By	MAC Address	Description	Ports		Inventory ID	Delete
						free	total		
SPA 2000 117	Sipura 2000	Sipura 2000	Administrator only	0:50:56:C0:0:8		1	2	1	



Name	My SPA-941 *
Description	My office Linksys SPA-941
Managed by	Administrator only
Type	Linksys SPA-941 *
Profile	SPA-941
MAC Address	00:0E:08:DB:F8:CE *
Ports	Total 2 Free 2
ASCII Key	d00b13g
Inventory ID	KZ Linksys

Field	Description
Name	IP phone name.
Description	Short description.
Managed by	**Administrator only** (default) means that this IP device will be used for your direct customers and is accessible only to your administrators. Select a PortaBilling reseller to assign this IP device for use by a particular reseller.
Type	One of the available device types (e.g. Cisco ATA, Sipura, etc.).
Profile	Select one of the defined IP phone profiles.
MAC Address	MAC Address of the IP phone.
Ports	Number of the IP phone ports (phone lines).
ASCII Key	The key which is used to encrypt the configuration information.
Inventory ID	An ID which allows you to identify this device in the external system (e.g. your warehouse management application).

4. Adjusting Billing Parameters



Edit	ISO 4217		Name	Dec. digits	Major	Minor	Exchange Rate Source	Payment System	Payment Method	Minimum Payment	Delete
	alpha	num									
	EUR	978	euro	2	Euro	euro-cent	XE.com	MyAuthorizeNet	VISA	1.00000	☒
	EUR	978	euro	2	Euro	euro-cent	XE.com	MyLinkPoint		1.00000	☒
	USD	840	US Dollar	2	dollar	cent	Manual	MyAuthorizeNet	VISA	1.00000	

Choosing XE.COM as exchange rate source you agree to the XE.COM Terms of Use

Please note that it is not allowed to have several (more than one) systems assigned to the same currency using the same payment method. Because of charges for the use of online payment systems, it is recommended that a non-zero value be entered in the Maximum Allowed Payment field.

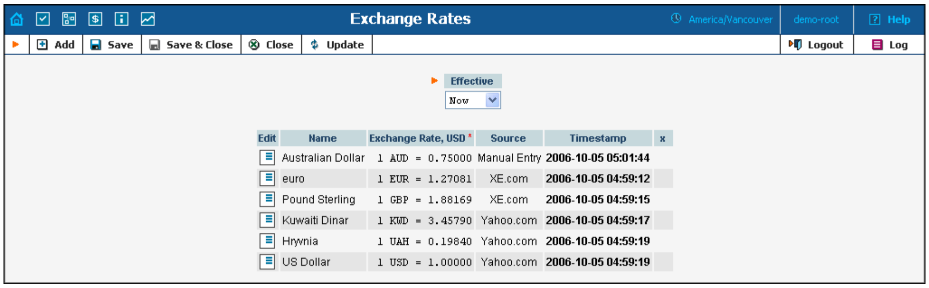
Column	Description
ISO 4217	
Alpha	Official three-letter currency code (e.g. USD).
num	Numeric currency code according to ISO standard.
Name	Commonly used name of the currency.
Dec. digits	Maximum number of decimal places allowed by the currency, e.g. for US dollars or euros it will be 2, since the smallest unit is one cent (0.01), while for yen it will be 0, because an amount in yens can only be a whole integer.
Major	The main currency unit, e.g. dollar.
Minor	The lesser currency unit (if applicable), e.g. cent.
Exchange Rate Source	Defines the method of entering the exchange rate for this currency: updated either manually by an administrator, or by PortaBilling from exchange rate sites such as xe.com or yahoo.com. For an existing row in the table, click on the underlined xe.com or yahoo.com line in a column to immediately fetch the current exchange rate.
Payment System	Selects an online payment processor to process payments in this currency.
Payment Method	Read-only column; lists all available payment methods (e.g. VISA) for the selected payment system.
Minimum Payment	The smallest allowed amount for an online payment (in the corresponding currency), in order to prevent service abuse.

Select **Save** or click the **Save** icon in the Edit field to make your changes take effect.

The ISO 4217 currency code is normally composed of a country's two-character ISO 3166 country code plus an extra character denoting the currency unit. For example, the code for Canadian Dollars is simply Canada's two-character ISO 3166 code ("CA") plus a one-character currency designator ("D"). Currency unit names (major and minor) are not defined in ISO 4217, and are listed in the table only for user convenience. Visit **BSI Currency Code Service (ISO 4217 Maintenance Agency) website http://www.bsi-global.com/** for more information.

Exchange Rates

All exchange rates used within the system are listed. The **Effective** drop-down list allows you to define whether only current exchange rates ("Now") or all exchange rates ever used ("->Now") will be shown. The following information is provided in the exchange rate listing:



Effective: Now

Edit	Name	Exchange Rate, USD *	Source	Timestamp	x
☰	Australian Dollar	1 AUD = 0.75000	Manual Entry	2006-10-05 05:01:44	
☰	euro	1 EUR = 1.27081	XE.com	2006-10-05 04:59:12	
☰	Pound Sterling	1 GBP = 1.88169	XE.com	2006-10-05 04:59:15	
☰	Kuwaiti Dinar	1 KWD = 3.45790	Yahoo.com	2006-10-05 04:59:17	
☰	Hryvnia	1 UAH = 0.19840	Yahoo.com	2006-10-05 04:59:19	
☰	US Dollar	1 USD = 1.00000	Yahoo.com	2006-10-05 04:59:19	

Field	Description
Edit	Click the **Edit** (☰) icon to modify the given exchange rate. Select 💾 **Save** or click the 💾 **Save** icon in the Edit field to make your changes take effect.
Name	The currency unit name (for example, "Canadian Dollar").
Exchange Rate	Currency exchange rate. Defines the number of units of the base currency equal to one unit of the foreign currency. (For example, with British Pounds as the foreign currency and U.S. Dollars as the base currency , the base currency units would be "1.5326" and the value of this column would be "1 GBP = 1.5326")
Source	Shows the exchange rate source for the given currency as defined on the **Currency** page.
Timestamp	The effective date for the given currency. Newer exchange rates supersede older ones.

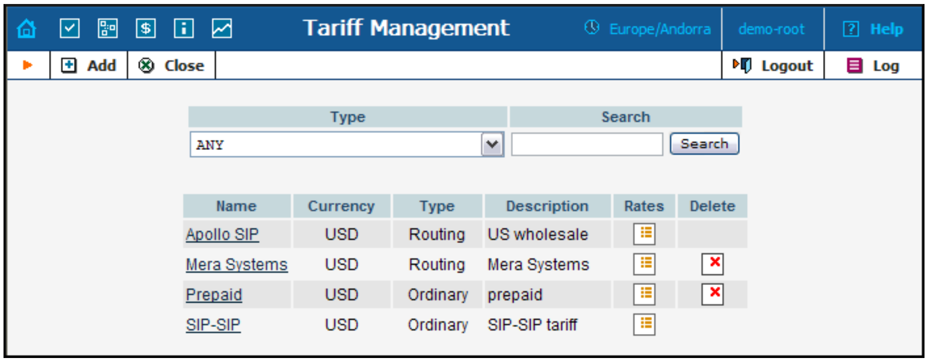
To add a new exchange rate, click the ⊞ **Add** button; this will start a new row in the table header. Select the currency from the list, and enter the exchange rate. Click the **Edit** ☰ icon to modify an existing exchange rate.

This will copy the content of the current row into the table header. The source will be changed to Manual. Enter the new exchange rate, then select either **Save Edit**, **Save** or **Save&Close** to save changes.

Tariffs

A tariff is a collection of individual rates, a rate being a per-destination price. Each tariff has its own set of rates. Call billing is based on billing units. You can define two billing units for each destination: the first billing unit (interval) and the next billing unit (interval). Billing unit precision is one second, and the minimum length of each unit is likewise one second.

Typical billing unit configurations include 60/6 (the first unit, i.e. the minimum charged call duration, is one minute, and subsequent intervals are one-tenth of a minute, i.e. six seconds) and 1/1 (per-second billing).



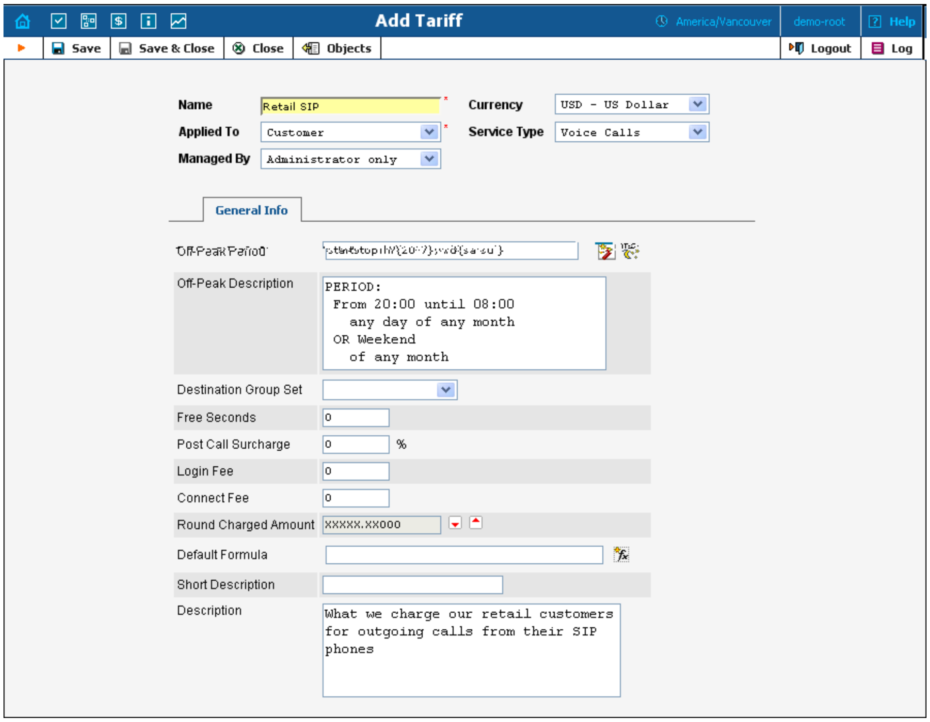
Type: ANY

Name	Currency	Type	Description	Rates	Delete
Apollo SIP	USD	Routing	US wholesale	☰	
Mera Systems	USD	Routing	Mera Systems	☰	☒
Prepaid	USD	Ordinary	prepaid	☰	☒
SIP-SIP	USD	Ordinary	SIP-SIP tariff	☰	

The main Tariff Management screen shows a list of all existing tariffs. Tariffs can be located using the Search form, by selecting a reseller from the drop-down list, or choosing the tariff's name. To edit a tariff, click on its name in the list. Click the Edit Rate ☰ icon to edit individual rates for the given tariff. The Delete ☒ icon will be visible only when the tariff is not in use (not assigned to any customer or vendor and not being used in any product's accessibility), and enables permanent deletion of the given tariff.

Add/Edit Tariff

To add a new tariff to the system, select **Add** to go to the Add Tariff screen. Existing tariffs can be edited by clicking on the tariff's name in the list.



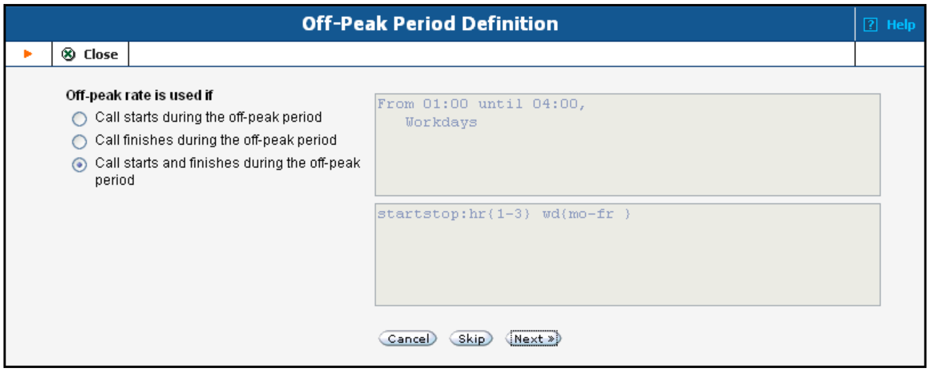
Name	Retail SIP
Currency	USD - US Dollar
Applied To	Customer
Service Type	Voice Calls
Managed By	Administrator only
Off-Peak Period	'startstop hr{20-7};wd{sa-su}'
Off-Peak Description	PERIOD: From 20:00 until 08:00 any day of any month OR Weekend of any month
Destination Group Set	
Free Seconds	0
Post Call Surcharge	0 %
Login Fee	0
Connect Fee	0
Round Charged Amount	xxxxx.xx000
Default Formula	
Short Description	
Description	What we charge our retail customers for outgoing calls from their SIP phones

Field	Description
Name	The logical name for the tariff object.
Currency	Indicates the currency in which pricing information is defined. All pricing information for a single tariff must be defined in the same currency.
Applied To	Designates whether this tariff will be used to charge your customers or resellers or to calculate costs associated with your vendors. You must select a value here to get access to certain fields that are available only for a specific type of tariff.
Service Type	Select the service type for which this tariff will be used (by default the **Voice Calls** service type will be selected).
Managed By	(Only available for tariffs of the **Customer** type). Allows you to designate this tariff as managed by the administrator only (so this tariff will be applied to your direct customers), or by a specific reseller (so this tariff will be used to charge the reseller's sub-customers).
Routing	(Only available for tariffs of the **Vendor** type). The tariff contains information about the carrier's routing preferences, in addition to the usual cost data.
Off-Peak Period	Off-peak period definition; click the wizard icon to launch the period format definition wizard; click the test icon to run the off-peak period test.
Off-Peak Description	Human-readable description of the off-peak period (e.g. "From 21:00 until 09:00, Working Days"). This field is

	automatically filled in by the wizard.
Destination Group Set	A set of destination groups (UK-Mobile, CZ-Mobile, etc.) you would like to use for more convenient rate entry.
Free Seconds	Number of free seconds granted for each call. In order to claim free seconds, the length of the call must be at least one billing unit (i.e. the first interval; see the 'Enter Rates' section above).
Post Call Surcharge	Increases the total call cost by the given value.
Login Fee	Amount to be charged immediately after the first user authentication.
Connect Fee	Amount to be charged for each successful call, in addition to other charges.
Round Charged Amount	Pattern that defines the rounding of a charged amount in an individual xDR. This pattern takes the form XXX000. An X (to the left) means that the digit in this position will be left unchanged, while a zero (to the right) means that this position will be rounded. For example, XXXXX.XX000 means that the amount will be rounded up to two decimal places, so that 1.2345 becomes 1.24. Note that rounding is **always** done upwards.
Default Formula	Default call rating formula applied to new rates. Note that the value of this parameter is only used when a new rate is inserted. Modification of this parameter has no effect on existing rates.
Short Description	While the name of a tariff is for your internal use, and is usually created according to your internal rules, you can also add a name meaningful to your reseller. For example, for the tariff name **aABC-SmartCall-USD-1800**, the short description will be **Smart call using a toll-free number**.
Description	Tariff description.

Free Seconds, Connect Fee and Post-Call Surcharge are only applied when the default rating method is used. For more about different call rating methods, see the **PortaBilling Administrator Guide**.

Off-Peak Period Definition Wizard



Off-peak rate is used if

- ○ Call starts during the off-peak period
- ○ Call finishes during the off-peak period
- ● Call starts and finishes during the off-peak period

```
From 01:00 until 04:00,
   Workdays
```

```
startstop:hr{1-3} wd{mo-fr }
```

The Off-Peak Period wizard provides users with a flexible tool for defining the off-peak period of any tariff. On a sequence of screens, the user may select a time interval, day of the week, day of the month, and month; multiple select is allowed. The following example illustrates the process of creating an off-peak period that starts at 6pm every day and lasts until 6am the next morning. Another off-peak interval is on weekends. We will also include some holidays, i.e. January 1st and December 24-26.

In the first screen, select 6pm in the **From** column, and 6am in the **Until** column. Now click the **Next** button. The two text areas on the right of the screen give the user a display of the current period definition. The top text area displays a verbal definition of the period -- `From 6:00pm until 6:00am`, and the bottom one contains this same information in a format that can be parsed by PortaBilling -- `hr{6pm-5am}.` This sets up the first period; in order to continue, skip the following screens by pressing the **Skip** or **Next** button until the "Period definition completed" message is displayed, then press the **Add** button to add another definition to this period. The wizard now returns to the first screen.

NOTE: Time::Period treats all formula elements as "inclusive". Thus, in the example above, 6pm to 6am will be represented as hr{6pm-5am}. This is perfectly correct, since 5am actually means "all of the 5th hour – 05:00:00 … 05:59:59".

Now for the weekends: pressing the **Skip** or **Next** button, go to the second screen and select *Weekend*, or, holding down the <Ctrl> key, select *Saturday* and *Sunday* from the list. Select the **Next** button and skip until the "Period definition completed" message is displayed. Press the **Add** button to add another definition to this period.

To include January 1st in the off-peak period definition, skip to the Day of Month screen, and select *1*. Click the **Next** button. Now select *January*, click **Next**, skipping forward to the next screen. Follow the same steps to select the December 24-26 interval. Hold the <Ctrl> key down to select multiple entries.

On the next screen, you can choose how the system will charge calls which overlap with your off-peak period, i.e. cover both peak and off-peak time. There are three options you can choose from:

- If the call starts in the off-peak period, it will be charged using off-peak rates (even if part of the call was made during peak time). This method is the easiest and most transparent for end-user authorization of outgoing calls.
- If the call finishes during the off-peak period, it will be charged using off-peak rates; it does not matter whether it starts within the off-peak period or not.
- Or, the off-peak rate will only be used if the call both started and finished during the off-peak period. In this case, any call which partly extends into the peak period will be charged at the peak rate.

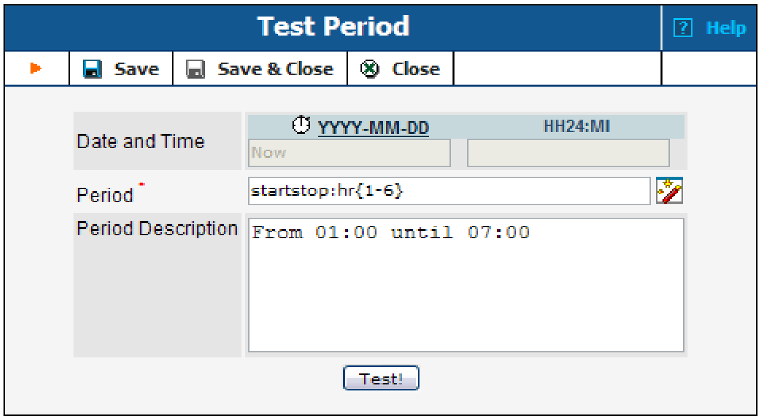
To evaluate your work, look at the top text area. The following text should be displayed:

```
From 6:00pm until 6:00am
   any day of any month
OR Sunday and Saturday
   of any month
OR 1
   of January
OR 24-26
   of December
```

If the definition is correct, click the **Finish** button.

Test the Off-peak Period

If you are unsure whether you have created a correct off-peak period definition, you may use the test utility to check if a specific moment in time fits into the period or not. In order to run the off-peak period test, either click the icon in the tariff information window, or use the **Test Period** button on the last page of the off-peak period wizard.



Date and Time: Now

Period *: startstop:hr{1-6}

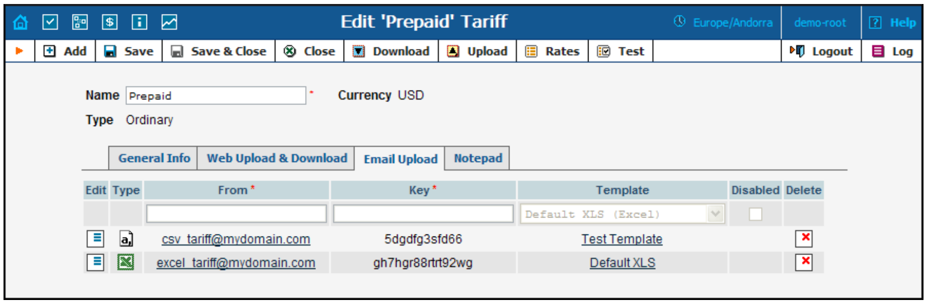
Period Description: From 01:00 until 07:00

Now simply enter any time/date and click the Test button to check whether this moment fits into the off-peak period definition.

Web Upload/Download

Choose appropriate templates for web upload/download of tariffs. Read more about this in the **Templates** section.

E-mail Upload



Name Prepaid *
Currency USD
Type Ordinary

Edit	Type	From *	Key *	Template	Disabled	Delete
				Default XLS (Excel)	☐	
☰	a	csv_tariff@mydomain.com	5dgdfg3sfd66	Test Template		☒
☰	☒	excel_tariff@mydomain.com	gh7hgr88rtrt92wg	Default XLS		☒

Tariffs can be uploaded to the system from an e-mail received with an attached document in either CSV or XLS format.

Field	Description
Edit	Click the Edit icon to copy the current row in the form above for editing.
Type	Uploaded document type, either CSV or XLS file.
From	Sender's e-mail; to prevent unauthorized access, only trusted e-mail will be allowed.
Key	Security key; tariff will be accepted only if the correct key is specified in the message's subject line or body.
Template	Select a template to map information in the uploaded file using PortaBilling. Read more in the **Templates** section.
Disabled	Disable receipt of tariffs from this source.
Delete	Click the delete icon to remove this source.

NOTE: Due to the security risk, the processing of incoming e-mails is disabled by default. To reactivate, enable e-mail forwarding to the mail processing script in the /etc/aliases file on your slave server.

Rates

Peak and Off-peak Prices

It is possible to have two different sets of prices, one for peak and one for off-peak time. A call is always billed using one rate or another; this also applies to calls which start in the off-peak period and end in the peak period, or vice versa, i.e. there is no proration. See above regarding how you to define whether the peak or off-peak rate should be used in this situation. By default, everything is considered peak time.

Off-peak periods are defined using a powerful and flexible `Time::Period` module. The Off-Peak Period Wizard is also available to help you construct a period definition in an easy manner.

Charging the Call (Old Method)

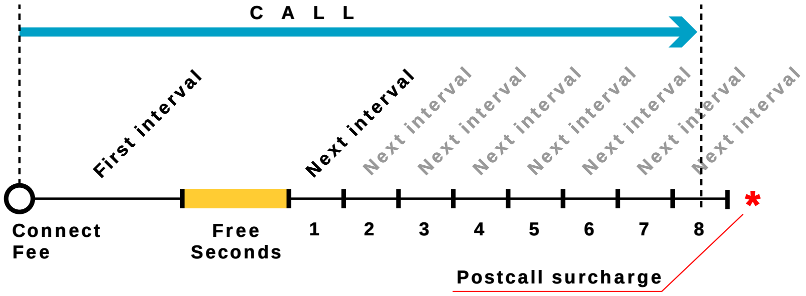

CALL
First interval
Next interval
Next interval
Next interval
Next interval
Next interval
Next interval
Next interval
Next interval
Connect Fee
Free Seconds
1
2
3
4
5
6
7
8
*
Postcall surcharge

Figure 4-1

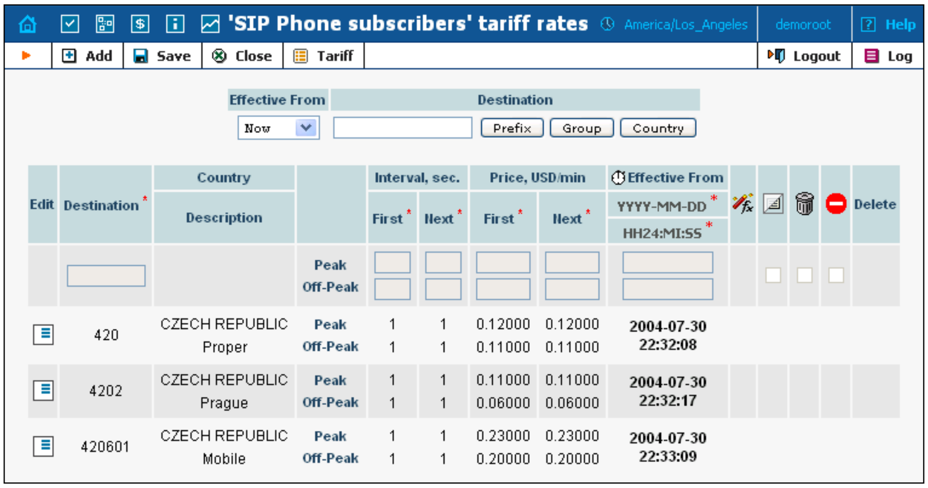
Figure 4-1 demonstrates how calls are charged. A **Connect Fee** is charged immediately upon connection, and all calls shorter than *First Interval_1* will be rounded to **First interval** seconds. Free seconds are granted after the *First interval*, so this part of the call is not charged. Calls longer than *(First interval+Free Seconds)* will be rounded up to multiple **Next interval** seconds. After that, a **Post Call Surcharge** is applied. The call illustrated in the figure above will be charged using the following formula:

```
Amount_Charged = ( Connect_Fee +
   First_Interval * Price_First/60 +
  8 * Next_Interval * Price_N/60) * (1+Post_Call_Surcharge/100)
```

Parameters such as **First interval**, **Next interval**, **Price First** and **Price Next** can be specified per destination. **Connect Fee**, **Free Seconds** and **Post Call Surcharge** are defined on a per-tariff basis, and so are the same for all destinations in the tariff.

Managing Rates Online

Managing rates online is very convenient for maintaining existing rate tables and for reference purposes. In the case of new price lists or major updates, the offline method is better.



Edit	Destination *	Country Description		Interval, sec. First *	Interval, sec. Next *	Price, USD/min First *	Price, USD/min Next *	Effective From YYYY-MM-DD * HH24:MI:SS *
			Peak Off-Peak					
≡	420	CZECH REPUBLIC Proper	Peak Off-Peak	1 1	1 1	0.12000 0.11000	0.12000 0.11000	2004-07-30 22:32:08
≡	4202	CZECH REPUBLIC Prague	Peak Off-Peak	1 1	1 1	0.11000 0.06000	0.11000 0.06000	2004-07-30 22:32:17
≡	420601	CZECH REPUBLIC Mobile	Peak Off-Peak	1 1	1 1	0.23000 0.20000	0.23000 0.20000	2004-07-30 22:33:09

On the Tariff Management page, click the ☰ **Rates** icon for a tariff.

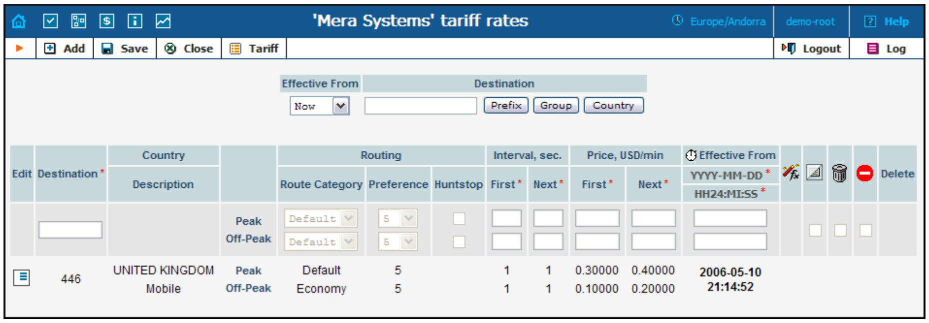
The filter at the top of the screen allows you to view rates depending on their Effective From date or Destination. The **Effective From** drop-down list allows you define whether only current rates ("Now") or all rates ever used ("->Now") will be shown.

To edit an existing rate, click the ≡ (**Edit**) icon next to it to copy rate details into the form. Note that if a tariff contains peak and off-peak rates there will be two rows of fields: the top one is for peak rates, and the bottom one is for off-peak rates.

Usually you will enter rate data for each destination separately. However, if the tariff has a **Destination Group Set** defined, by clicking on **G** in the Destination column header you can switch into Destination Group mode. Now you can enter a destination group name (e.g. UK-Mobile) instead of a prefix, and the system will automatically create rates for all of the destinations in that group.

Field	Description
Destination	Destination prefix. May be entered directly, e.g. "47" for Norway; or you can access the destinations directory by clicking the Destination link. In the destinations directory pop-up window, you can search for the desired prefix by country name.
Country	Country corresponding to the current destination.
First interval	First billing unit in seconds.
Next interval	Next billing unit in seconds.
Price first	Per minute price for first interval.
Price next	Per minute price for next interval.
Off-peak First interval	First billing unit in seconds for off-peak time.

Off-peak Next interval	Next billing unit in seconds for off-peak time.
Off-peak Price first	Per minute price for first interval in off-peak time.
Off-peak Price next	Per minute price for next interval in off-peak time.
Effective Time	Exact time when the rate becomes effective. Click the ⏱ icon to make the rate effective immediately. Click the **DD-MM-YYYY** link to set up the desired date using the pop-up calendar.
fx	Indicates if this rate uses a call rating formula. The fx icon indicates that there is no formula, thus old-style rating is used. The fx icon indicates that the rate already has a formula defined. Click on the icon to invoke the call rating formula wizard.
Rate Properties	▨ **Hidden**. This means that the rate is excessive (e.g. there are usually more than 500 rates for Argentina mobile because of different prefixes). This flag does not affect usage of the rate by the billing engine. It simply indicates that this rate may be omitted when making a list of rates for the end user. 🗑 **Discontinued**. Note that marking a rate as discontinued takes effect immediately; you cannot discontinue a rate sometime in the future ⛔ **Forbidden**. This means that no calls are authorized for this particular destination.
Delete	Click the delete icon to delete this rate. Only rates which are not yet active can be deleted.

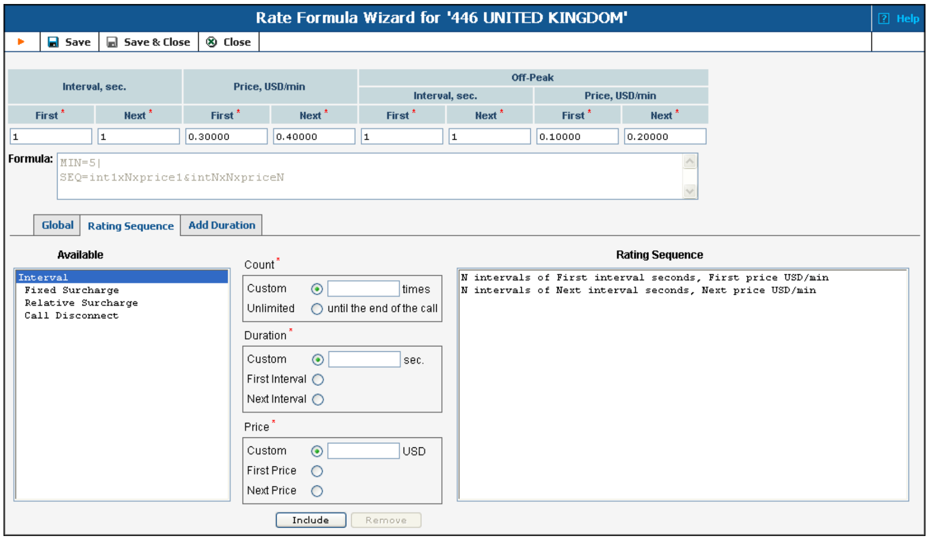


Effective From: Now
Destation:

Edit	Destination *	Country / Description		Route Category	Preference	Huntstop	Interval, sec. First *	Interval, sec. Next *	Price, USD/min First *	Price, USD/min Next *	⏱ Effective From YYYY-MM-DD * HH24:MI:SS *	fx	▨	🗑	⛔	Delete
			Peak	Default	5	☐							☐	☐	☐	
			Off-Peak	Default	5	☐										
☰	446	UNITED KINGDOM	Peak	Default	5		1	1	0.30000	0.40000	2006-05-10 21:14:52					
		Mobile	Off-Peak	Economy	5		1	1	0.10000	0.20000						

The following columns are available only for tariffs of the **Routing** type:

Field	Description
Route Category	Route category, selected from among those already defined. If you do not wish to use different route categories, use the **Default** one.
Preference	Routing priority for this destination. 10 is the highest


Rate Formula Wizard for '446 UNITED KINGDOM'
Help
Save
Save & Close
Close
Global
Rating Sequence
Add Duration
Include
Remove

Interval, sec.		Price, USD/min		Off-Peak			
				Interval, sec.		Price, USD/min	
First *	Next *	First *	Next *	First *	Next *	First *	Next *
1	1	0.30000	0.40000	1	1	0.10000	0.20000

Formula:

```
MIN=5|
SEQ=int1xNxprice1&intNxNxpriceN
```

Available

```
Interval
 Fixed Surcharge
 Relative Surcharge
 Call Disconnect
```

Count *
Custom ● times
Unlimited ○ until the end of the call

Duration *
Custom ● sec.
First Interval ○
Next Interval ○

Price *
Custom ● USD
First Price ○
Next Price ○

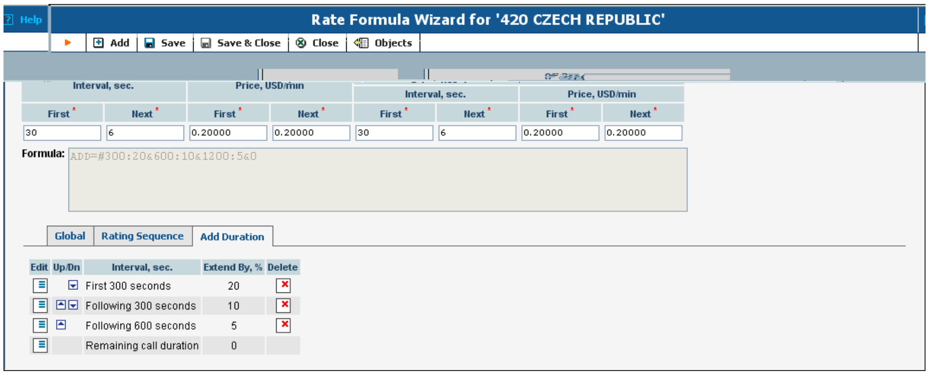
Rating Sequence

```
N intervals of First interval seconds, First price USD/min
N intervals of Next interval seconds, Next price USD/min
```

1. Choose the element type from the list on the left (**Available**).
2. Fill in the element parameters (such as interval duration, price, etc.).
3. Click the **Include** button to add this element to the formula.

Add Duration:

NOTE: This option must be enabled in the config; by doing so, you accept the responsibility for any legal issues related to use of this billing feature.


Help
Rate Formula Wizard for '420 CZECH REPUBLIC'
Add
Save
Save & Close
Close
Objects
Global
Rating Sequence
Add Duration

Interval, sec.		Price, USD/min		Interval, sec.		Price, USD/min	
First *	Next *	First *	Next *	First *	Next *	First *	Next *
30	6	0.20000	0.20000	30	6	0.20000	0.20000

Formula:

```
ADD=#300:20&600:10&1200:5&0
```

Edit	Up/Dn	Interval, sec.	Extend By, %	Delete
☰	▼	First 300 seconds	20	☒
☰	▲▼	Following 300 seconds	10	☒
☰	▲	Following 600 seconds	5	☒
☰		Remaining call duration	0	

- **Interval, sec.** – The duration of a specific call interval to which "add duration" should be applied. Initially there will be only one row in the Add Duration table, defining the rule to be applied to the whole call. Click the ⊞ **Add** button to add a rule for another interval. Intervals are interpreted according to the order in which they appear in the table, e.g. the first row covers the *first* 300 seconds, the second row covers the following 300 seconds, and so on.
- **Extend By, %** – Defines how the call duration for this interval should be changed (increase in percentage; a 0 value means that the call duration should not change).

Managing Rates Offline

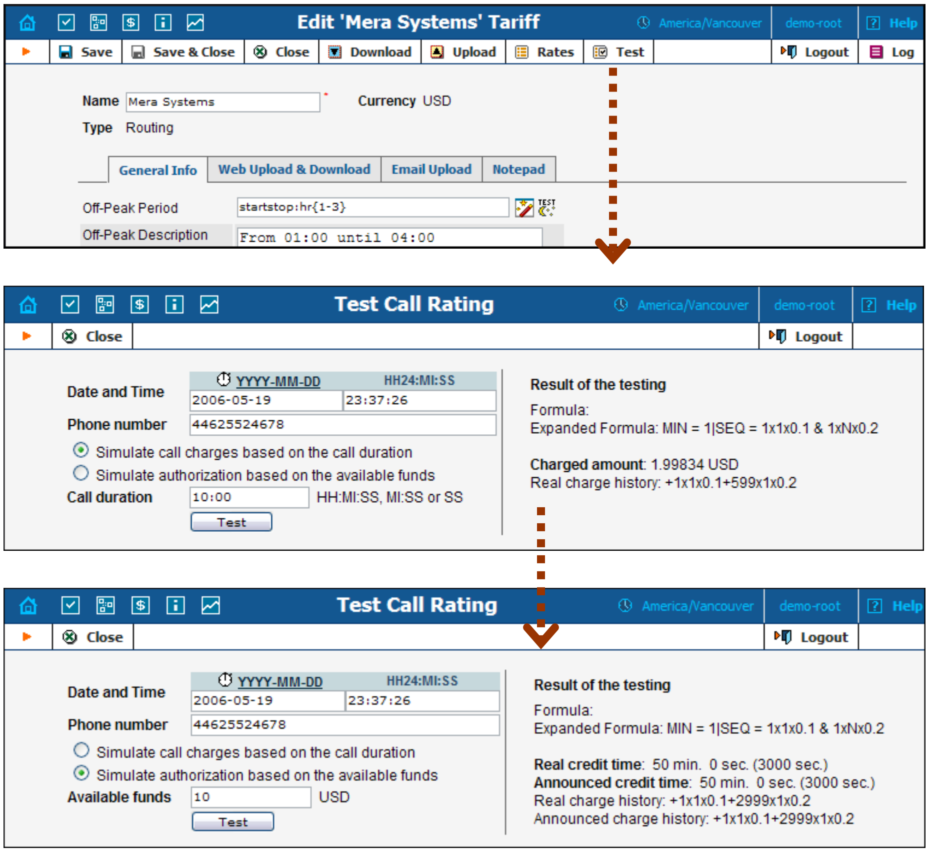
The rates table may be prepared using a spreadsheet processor (e.g. MS Excel) and easily imported into PortaBilling. This is very convenient if you are going to make many changes. For example, you might increase all prices by 10%. To upload your rates file, proceed as follows:

1. On the Tariff Management page, click on the tariff name.
2. In the Edit Tariff window, click the **Upload .CSV** icon.
3. In the Upload Rates window, click Browse…
4. Locate the Tariff-sample.csv, then click Open.
5. In the Upload Rates window, click Upload.
6. In the Edit Tariff window, click Close.

You can verify your work using the **Rates** feature.

Test Call Rating

This screen allows testing of the call rating formula and shows the resulting cost and duration of the call. The formula can be used both ways: either to calculate the call's cost given its duration, or to see how long a call ought to last given its cost.


Edit 'Mera Systems' Tariff
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Download
Upload
Rates
Test
Logout
Log
General Info
Web Upload & Download
Email Upload
Notepad
Test Call Rating
America/Vancouver
demo-root
Help
Close
Logout
YYYY-MM-DD
HH24:MI:SS
Test
Test Call Rating
America/Vancouver
demo-root
Help
Close
Logout
YYYY-MM-DD
HH24:MI:SS
Test

Name: Mera Systems
Currency: USD
Type: Routing
Off-Peak Period: startstop:hr{1-3}
Off-Peak Description: From 01:00 until 04:00

Date and Time: 2006-05-19 23:37:26
Phone number: 44625524678
● Simulate call charges based on the call duration
○ Simulate authorization based on the available funds
Call duration: 10:00 HH:MI:SS, MI:SS or SS

Result of the testing
Formula:
Expanded Formula: MIN = 1|SEQ = 1x1x0.1 & 1xNx0.2
Charged amount: 1.99834 USD
Real charge history: +1x1x0.1+599x1x0.2

Date and Time: 2006-05-19 23:37:26
Phone number: 44625524678
○ Simulate call charges based on the call duration
● Simulate authorization based on the available funds
Available funds: 10 USD

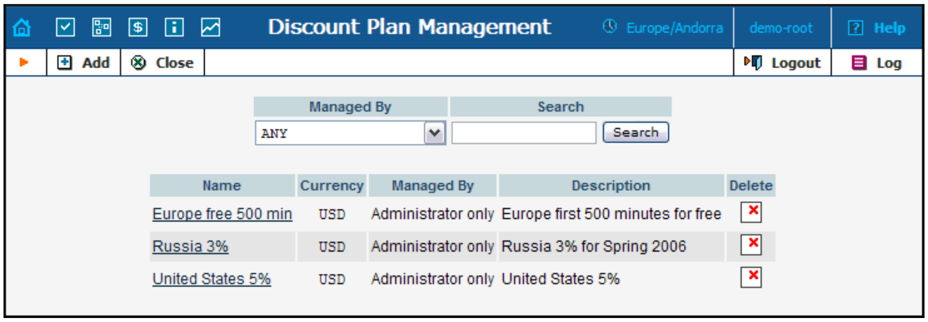
Result of the testing
Formula:
Expanded Formula: MIN = 1|SEQ = 1x1x0.1 & 1xNx0.2
Real credit time: 50 min. 0 sec. (3000 sec.)
Announced credit time: 50 min. 0 sec. (3000 sec.)
Real charge history: +1x1x0.1+2999x1x0.2
Announced charge history: +1x1x0.1+2999x1x0.2

Field	Description
Date and Time	The date and time when the call is initiated. Click on ⏱ icon to set the current time. The “YYYY-MM-DD” opens a calendar that can be used to select a date.
Phone number	The phone number to call.
Call duration	Estimated call duration.
Available funds	Estimated available funds.
Results of the testing	
Formula	The rate formula used for the given destination.
Expanded Formula	The rate formula with the real interval and price values.
If the formula calculates the call cost based on its duration	
Charged amount	Charged amount for test call
Real charge history	A short description of how the **Charged amount** was calculated
If the formula calculates the call duration based on available funds	
Real credit time	The true maximum call duration.
Announced credit time	The announced maximum call duration.
Real charge history	A short description of how the **Real credit time** was calculated.
Announced charge history	A short description of how the **Announced credit time** was calculated.

Volume Discount Plans

Volume discount plans allows you to dynamically modify your rates depending on how much traffic a customer has already sent you. For instance, after he makes calls for 200 minutes (charged at the normal rate) he will get a 10% discount for every minute he calls over this limit.

A discount plan includes one or more discount schemes applicable to a certain destination group. “First 200 minutes for free, then normal rate with 10% discount over 500 minutes” is one such discount scheme, and it may be applied to the destination group “Asia”, which includes China, Hong Kong, Singapore, Thailand and other countries.



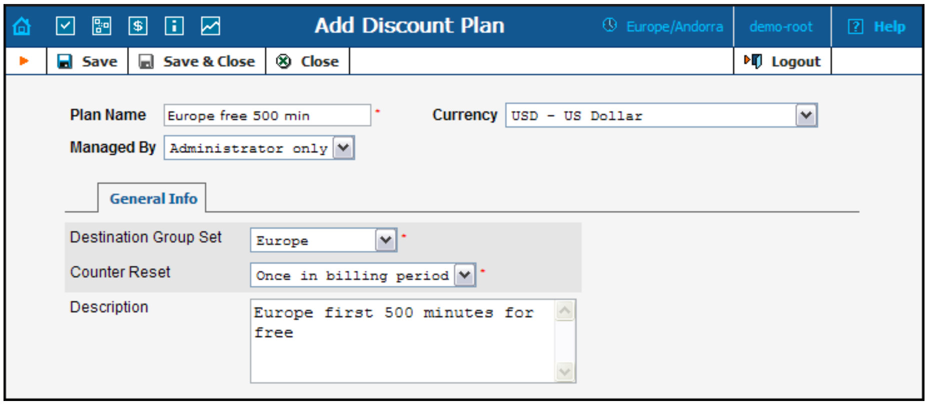
Managed By	Search
ANY	

Name	Currency	Managed By	Description	Delete
Europe free 500 min	USD	Administrator only	Europe first 500 minutes for free	☒
Russia 3%	USD	Administrator only	Russia 3% for Spring 2006	☒
United States 5%	USD	Administrator only	United States 5%	☒

Use the main Discount Plan Management screen to list all existing plans. Plans can be located using the search form, by selecting a reseller from the drop-down list, or entering the plan's name. To edit a discount plan, click on its name in the list. The Delete icon will be visible only when a discount plan is not in use (not assigned to any customer, account or product), and enables permanent deletion of the discount plan.

Add/Edit a Discount Plan

To add a new discount plan to the system, select Add to go to the discount plan creation screen. An existing discount plan can be edited by clicking on its name in the list.



Plan Name: Europe free 500 min *
Currency: USD - US Dollar
Managed By: Administrator only

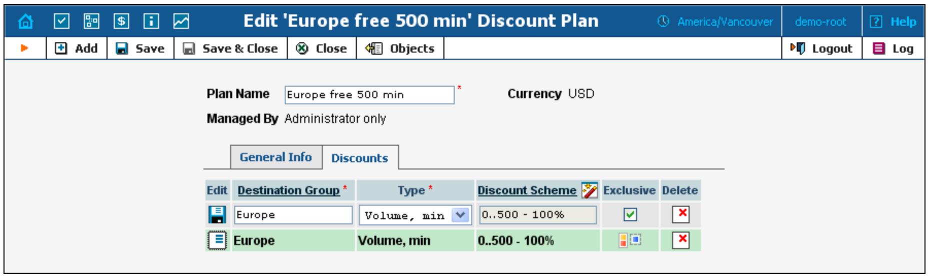
Destination Group Set: Europe *
Counter Reset: Once in billing period *
Description: Europe first 500 minutes for free

Field	Description
Name	The logical name of the discount plan object.
Managed By	By default – administrator only. The plan can be assigned to a reseller (Managed by NNN) so that it is manageable from the Customer Self-Provisioning web interface.
Currency	Indicates which currency is used for billing calculations. All discounts in a plan are to be defined in this currency. A discount plan can only be assigned to customers, accounts and products using the same currency.
Destination Group Set	Discounts can be defined for individual groups (e.g. US&Canada, Asia, Western Europe) within this set.

	Once chosen during discount plan creation, they cannot be changed later on.
Counter Reset	Each discount has internal counters associated with a corresponding account or customer. These counters store the current value in minutes (or charged amount) of calls made to a specific destination group. The counters go up according to the customer's or account's billing. • **Never** means the plan counters will never be reset (zeroed). This is convenient if you wish to provide a special promotion such as "500 free minutes of calls to Western Europe". In this case, the counter will always go up, and the normal rate will be applied after it reaches 500 minutes. • **Once in billing period** means the counters of the plan will be reset when the customer's next billing period begins. If you have defined a "first 500 minutes for free" discount, then the customer will have 500 free minutes in every billing period (month, week, etc.). Once chosen, this setting cannot be changed later on.
Description	Short description of discount plan.

Defining Discounts for Individual Destination Groups

After a volume discount plan has been saved, the Discounts tab will become available. To add a new discount to the plan, click the **Add** button. An existing discount can be edited by clicking the **Edit** icon on the row containing its details.



Plan Name: Europe free 500 min
Currency: USD
Managed By: Administrator only

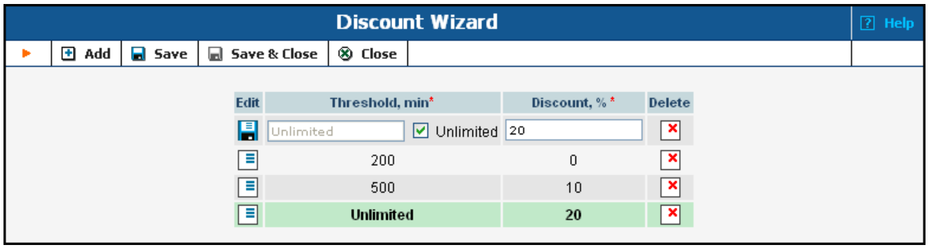
Edit	Destination Group *	Type *	Discount Scheme	Exclusive	Delete
	Europe	Volume, min	0..500 - 100%	☑	☒
	Europe	Volume, min	0..500 - 100%		☒

Field	Description
Destination Group	Enter the name of a destination group manually, or click the column header link (**Destination Group**) to choose a group from a searchable list inside the pop-up window.
Type	Select the threshold type: will you use thresholds based

	on the charged amount, or on the total call time? - **Amount** means the threshold is measured in currency units (e.g. USD), and the counters will go up by the amount which the customer should have been charged for the call before the volume discount was applied. - **Volume** means the unit is minutes, and the counters will go up by the same value as the charged call duration. Note the difference between *call duration* and *charged call duration*. For instance, if a rate specifies 5 minutes rounding and a customer has spoken for 3 minutes 42 seconds, he will be charged for 5 minutes and the counter will go up by 5 minutes as well.
Exclusive	Defines whether an account should be granted exclusive free calls, i.e. calls to which a 100% discount is applied (these calls do not affect the customer's counters). See the **PortaBilling Administrator Guide** for more details.
Discount Scheme	Since the discount formula is complex, you cannot edit it directly. Click on the column header or the icon in order to launch the discount definition wizard (see the section below).

Discount Definition Wizard

The discount wizard provides users with a flexible tool for defining threshold values and corresponding discount values. A threshold defines the maximum counter value (call duration or charged amount) within which the current discount may still be applied. If the last available discount is to be applied regardless of the counter value (e.g. first 200 minutes – normal rate, up to 500 minutes – 10% discount, and 20% discount after that) then this last discount will be created with a special unlimited threshold.



Edit	Threshold, min*	Discount, % *	Delete
	Unlimited ☑ Unlimited	20	☒
	200	0	☒
	500	10	☒
	Unlimited	**20**	☒

Field	Description
Threshold	The threshold value is measured either in currency units or time units (minutes), according to the type of discount. The value entered must be numeric (with a

	period allowed) and greater than zero. To provide a special unlimited value for the threshold, check the **Unlimited** box. You cannot have two discount rows with the same threshold values.
Discount	The percentage discount value must be numeric (with a period allowed) in the 0 – 100 range. A 0% discount means "standard rate applied", while a 100% discount means "free call".

The billing engine decides which discount is to be applied, depending on whether the counter for the given destination has reached one of the defined thresholds. Note that the "charged amount" counters record charges as they are defined in the tariff, i.e. before a volume discount is applied. If there is no "Unlimited" threshold discount, and the counter exceeds the last (i.e. biggest) threshold, any further calls will be billed according to the standard tariff rate.

For example:
Discount type - Volume, minutes

The discount is defined as 0..100 - 50%; 100..200 - 20%; 200..unlimited - 10%
The first 100 minutes are billed at a 50% discount (half the price specified in the tariff), the next 100 minutes are billed at a 20% discount, and thereafter all calls receive a 10% discount.

The discount is defined as 0..100 - 100%
The first 100 minutes are free; all minutes above that are billed at the tariff rate.

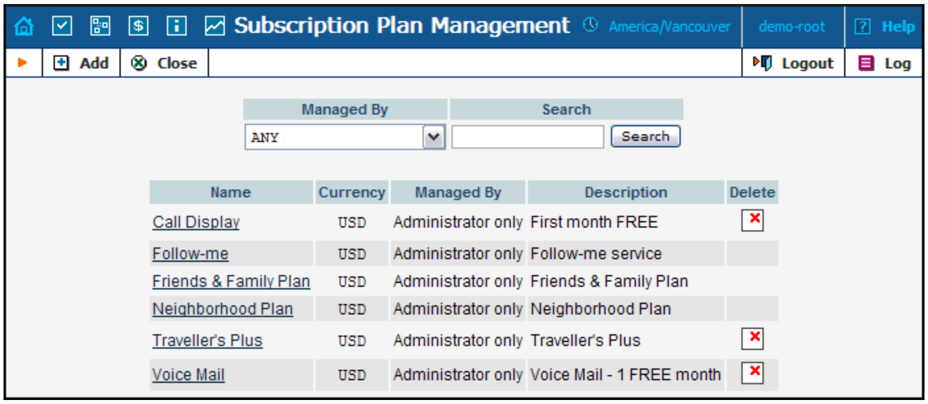
Discount type - Amount, USD. The tariff rate for the given destination is a flat 0.5 USD per minute.

The discount is defined as 0..10.00 - 0%; 10.00..20.00 - 10%; 20.00..unlimited - 20%
When the customer begins making calls, each call is charged according at the normal rate until the total charged amount exceeds $10.00. After that, the customer is given a 10% discount on calls.

NOTE: Let's look at a situation in which a customer's balance is $10.00 (and the volume discount counter is also $10.00). The customer makes a 30-minute call, and the tariff rate is $0.20/min. The call is charged as 30 * 0.20 – 10% = $5.40, and this value is stored in the CDR for the call. Thus the customer's balance will be modified by $5.40, to become 15.40. At the same time, the volume discount counter will go up by the amount without the discount. Thus the counter will go up by $6, to become $16.00.

Subscription Plans

Subscription plans enable automation of recurring non-call related charges applied to your customers: for instance, basic monthly fees or fees for additional services such as voicemail or hardware rental.


Subscription Plan Management
America/Vancouver
demo-root
Help
Add
Close
Logout
Log
Search

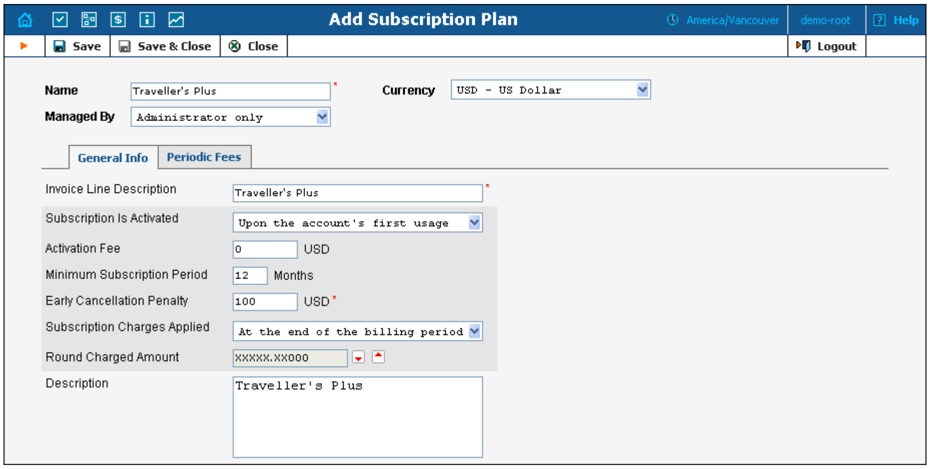
Managed By: ANY

Name	Currency	Managed By	Description	Delete
Call Display	USD	Administrator only	First month FREE	☒
Follow-me	USD	Administrator only	Follow-me service	
Friends & Family Plan	USD	Administrator only	Friends & Family Plan	
Neighborhood Plan	USD	Administrator only	Neighborhood Plan	
Traveller's Plus	USD	Administrator only	Traveller's Plus	☒
Voice Mail	USD	Administrator only	Voice Mail - 1 FREE month	☒

Use the main Subscription Plan Management screen to list all existing plans.

Add/Edit a Subscription Plan

To add a new subscription plan to the system, select Add to go to the subscription plan creation screen. An existing subscription plan can be edited by clicking on its name in the list.


Add Subscription Plan
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Logout
General Info
Periodic Fees

Name: Traveller's Plus *
Currency: USD - US Dollar
Managed By: Administrator only
Invoice Line Description: Traveller's Plus *
Subscription Is Activated: Upon the account's first usage
Activation Fee: 0 USD
Minimum Subscription Period: 12 Months
Early Cancellation Penalty: 100 USD *
Subscription Charges Applied: At the end of the billing period
Round Charged Amount: XXXXX.XX000
Description: Traveller's Plus

Field	Description
Name	The logical name of the subscription plan object.
Managed By	By default – administrator only. The plan can be assigned to a reseller (Managed by NNN) so that it is manageable from the Customer Self-Provisioning web

	interface.
Currency	Indicates which currency is used for billing calculations. All fee amounts in the plan are to be defined in this currency. A subscription plan can only be assigned to customers, accounts and products using the same currency.

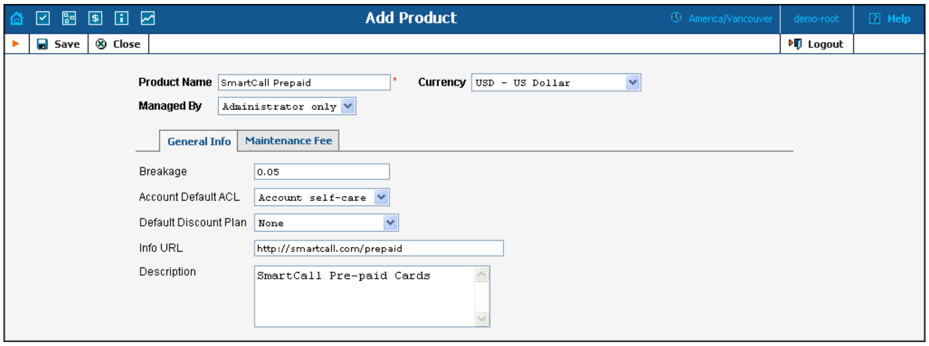
General Info tab

Field	Description
Invoice Line Description	The subscription plan name as the end-user will see it on the invoice.
Subscription Is Activated	Specifies from which date subscription charges will apply: • At the given start date – the first billed day is the subscription start date. • At the account's first usage – charges are applied only from the later of the subscription start date or the account first usage date.
Activation Fee	A one-time fee applied when the subscription is activated.
Minimum Subscription Period	Time interval (in months) during which the subscription must remain uninterrupted so as to avoid penalties.
Early Cancellation Penalty	A one-time fee applied if the subscription is cancelled earlier than the minimum subscription period.
Subscription Charges Applied	Defines whether the customer is charged the full subscription fee at the end of the billing period, or if a prorated service charge is applied on a day-by-day basis depending on the time the service was used during this period. For example, if the monthly subscription fee is $9.99, a progressively charged customer will be charged $0.33 daily, and on the 10th day the subscription charges will total $3.33.
Round Charged Amount	A pattern that defines the rounding of the amount charged for a billing period (e.g. when the monthly subscription amount is $10.00, but the service was only used for 10 days, it is desirable to round the applicable charge of $3.33333). This pattern takes the form XXX000. An X (to the left) means that the digit(s) in this position will be left unchanged, while a zero (to the right) means that this position will be rounded. For example, XXXXX.XX000 means that the amount will be rounded up to two decimal places, so that 1.2345 becomes 1.24. Note that rounding is **always** done upwards.

period, the **N** columns for Bi-Weekly, Weekly and Daily billing periods will be automatically filled with 2, 4 and 30 respectively.

- If you type a value in one of the **Fee** columns, a re-calculated value will be entered automatically in all other empty columns. For instance, when defining a special promotion for the first month as mentioned above, if you type 9.99 in the **Fee** column under the services any string may be used, so long as it is one provided by the application handling the call).

4. Originating line information (this is applicable only to the voice call service, where the call originates on the PSTN network). You can separate accessibility entries based on originating line information (e.g. whether the call was made from a home phone or a pay phone). Make sure your telecom provider supplies you with this information in the call setup.



Product Name: SmartCall Prepaid *
Currency: USD - US Dollar
Managed By: Administrator only
Breakage: 0.05
Account Default ACL: Account self-care
Default Discount Plan: None
Info URL: http://smartcall.com/prepaid
Description: SmartCall Pre-paid Cards

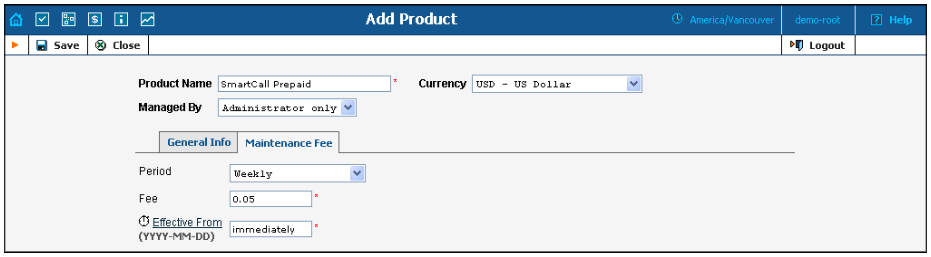
The basic information for defining a product is as follows:

Field	Description
Product Name	The logical designation of the product.
Currency	The currency in which the product will be maintained. To edit a currency, delete all accessibility entries for this product.
Managed By	**Administrator only** (default) means that this product will be used for your direct customers and is accessible only to your administrators. Select a PortaBilling reseller to assign this product for use by a particular reseller.
Breakage	This value should be set by the administrator based on the currency and minimum price per minute. It is used in Account Management to obtain a summary of “depleted” (practically unusable) accounts. How it works: An account user could have a very small balance, e.g. 0.015. This is not enough to make calls to most destinations, except perhaps calls to technical support and certain local calls. Thus, even though the account’s balance is not yet zero, the account is basically unusable (and the customer will probably never use it). The administrator is interested in how many accounts are in this state, i.e. how many accounts are depleted.
Account Default ACL	Which ACL should be assigned to new accounts created with this product.
Default Discount	Which Discount Plan will be used with all the product’s accounts by default.

Plan	
Info URL	URL to an external website describing product features. Customers can access it by clicking on the **Product Info** link in the main menu of their self-care interface.
Description	Product description.

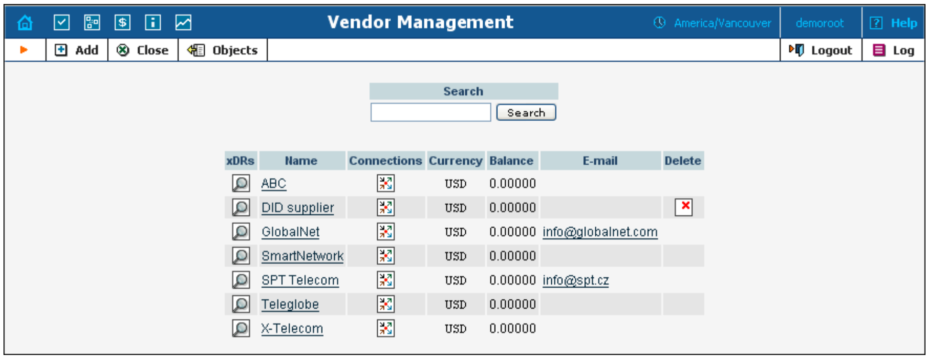
Maintenance Fee

In most cases, you will use subscription plans rather than maintenance fees to apply periodic charges to your customers.



Product Name: SmartCall Prepaid *
Currency: USD - US Dollar
Managed By: Administrator only
Period: Weekly
Fee: 0.05 *
Effective From (YYYY-MM-DD): immediately *

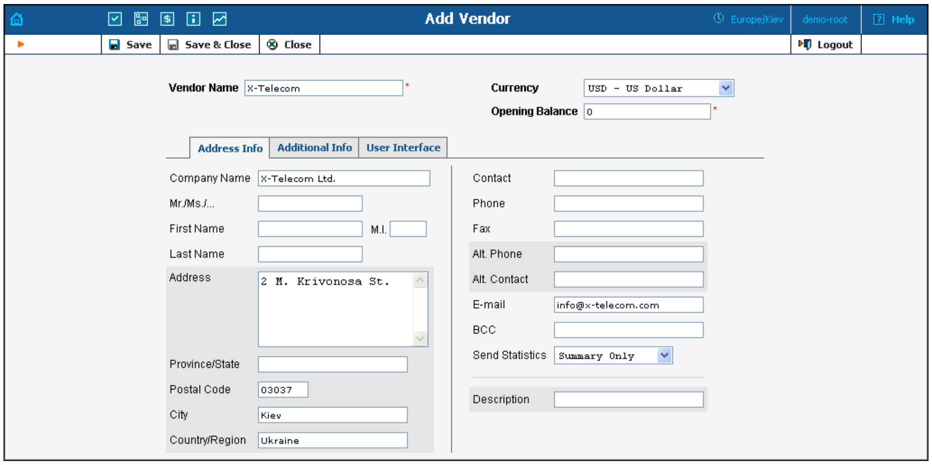
Field	Description
Period	Defines how often to apply the maintenance fee. The maintenance fee will be charged on the first day after an account is used for the first time, or on the date specified in the Maintenance Charging option, and thereafter according to a specified period, e.g. every week.
Fee	Only defined when a maintenance period is set; the amount to charge any account using this product according to the schedule defined by the maintenance period.
Effective From	Defines when the maintenance fee starts to be applied.


Vendor Management
America/Vancouver
demoroot
Help
Add
Close
Objects
Logout
Log
Search

xDRs	Name	Connections	Currency	Balance	E-mail	Delete
	ABC		USD	0.00000		
	DID supplier		USD	0.00000		☒
	GlobalNet		USD	0.00000	info@globalnet.com	
	SmartNetwork		USD	0.00000		
	SPT Telecom		USD	0.00000	info@spt.cz	
	Teleglobe		USD	0.00000		
	X-Telecom		USD	0.00000		

Column	Description
xDRs	Click the View (🔍) icon to go to the xDR view page for this vendor.
Name	The vendor's name.
Connections	Click the connections (⇄) icon to be taken to the connections management page for this vendor. Read more in the Connections section below.
Currency	The currency in which the vendor's account is maintained and paid.
Balance	The vendor's current balance.
E-mail	E-mail contact for the given vendor.
Delete	Click the delete (☒) icon to remove the vendor. The delete button will only appear if there are no xDRs or connections defined for the vendor.

Add/Edit Vendor


Add Vendor
Europe/Kiev
demo-root
Help
Save
Save & Close
Close
Logout
Address Info
Additional Info
User Interface

Vendor Name: X-Telecom *
Currency: USD - US Dollar
Opening Balance: 0 *

Company Name: X-Telecom Ltd.
Mr./Ms./...:
First Name: M.I.:
Last Name:
Address: 2 M. Krivonosa St.
Province/State:
Postal Code: 03037
City: Kiev
Country/Region: Ukraine

Contact:
Phone:
Fax:
Alt. Phone:
Alt. Contact:
E-mail: info@x-telecom.com
BCC:
Send Statistics: Summary Only
Description:

The Add Vendor page allows definition of a new client entity within PortaBilling. The information required is split into two tabbed sections: Address Info and Additional Info. The Edit Vendor page also contains the Notepad tab for making notes. The following information is required at the top of the form:

Field	Description
Vendor Name	Defines the vendor name as it will appear within the PortaBilling system. This is distinct from the **Company Name** field in the **Address Info** tab.
Currency	A currency must be specified by selecting it from the drop-down list of available currencies.
Opening Balance	The starting balance for the vendor.

The information in all the other tabs is optional, and need not be specified when creating a vendor.

Maintenance

The Maintenance tab allows the administrator to correct a vendor's balance.

Field	Description
Action	**Manual charge:** Use this transaction to adjust the vendor's balance in case of non-call related charges from the vendor. For instance, if the vendor is charging you for an equipment purchase. **Manual refund:** Use this transaction if you have received credit to your account. For instance, if you complained about the vendor's service quality and have agreed for certain funds to be credited toward future services.
Amount	Amount to charge/refund.
Visible comment	A comment on this transaction visible to the vendor in the xDR browser.
Internal comment	An internal comment on this transaction; not visible in the xDR browser, and only accessible directly from the database.

Additional Info

Field	Description
Billing Period	Defines the frequency of invoicing for this vendor.
Offset Balance with Customer	Defines the customer for automatically offsetting the vendor's balance (if this vendor also sends you traffic, i.e. he is also your customer). You may only choose a reseller or retail customer defined with the same currency.
Minimum Amount to	When the balance reaches the threshold value, the current vendor's balance will be applied as credit to

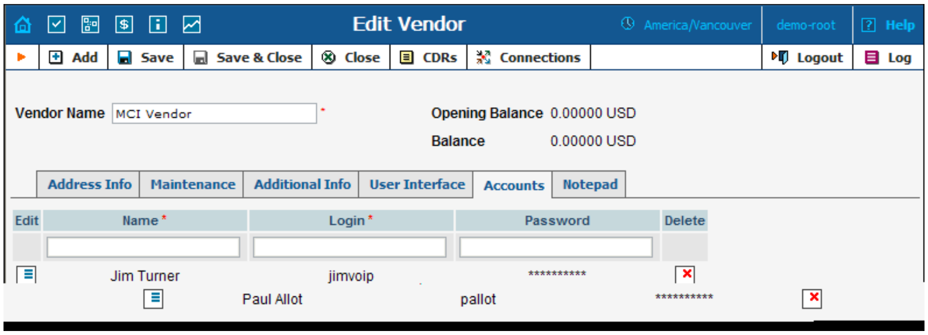
Offset	the chosen customer and reduced to zero. xDR records for both the vendor and the customer will be created for this transaction.

User Interface

The User Interface tab content is identical to that described in the *User Interface* subsection of the *User Management* section of this guide.

Accounts

When you send traffic to the vendor's network, both parties are interested in securing the connection so that no one else can send traffic to the vendor, as this would then be billed to your account. When using SIP, it is possible to do this in a very convenient and secure way: by using digest authentication. In this case, the vendor will provide you with a username/password, which will be used to authorize every outgoing call from your network to this vendor. Here you can enter information about such accounts, so that they can be provided automatically by billing to the SIP server.


Edit Vendor
America/Vancouver
demo-root
Help
Add
Save
Save & Close
Close
CDRs
Connections
Logout
Log
Address Info
Maintenance
Additional Info
User Interface
Accounts
Notepad

Vendor Name MCI Vendor *

Opening Balance 0.00000 USD

Balance 0.00000 USD

Edit	Name *	Login *	Password	Delete
☰	Jim Turner	jimvoip	**********	☒
☰	Paul Allot	pallot	**********	☒

Connections

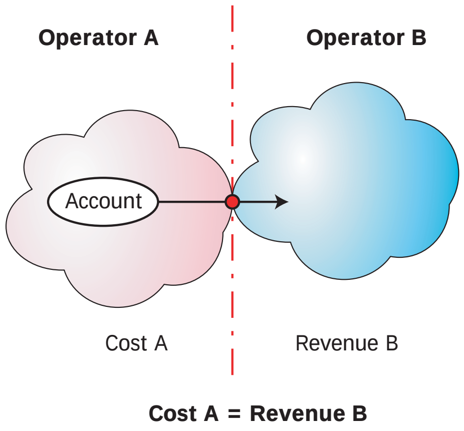
Definitions

Network

VoIP network - one or more VoIP entities that belong to a single operator.

Connection

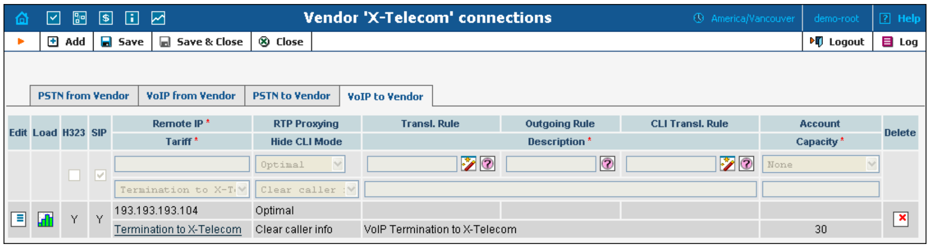
Point of change of network ownership. Defined as a set of physical and logical parameters i.e. IP, Port, Timeslot, Call Type, Call Direction, etc.


Operator A
Operator B
Account
Cost A
Revenue B
Cost A = Revenue B

Operator
: Network owner. Responsible for internetworking and wholesale in its network.

A connection defines the point where a call travels between the networks of two operators, one of whom is a PortaBilling owner. At this point, we will create an xDR for the vendor (the other operator) describing our costs. Also, if this was an outgoing call, we will create xDRs for both the account and the customer.

The Connections Management screen is broken down into call leg types using four tabs: PSTN from Vendor, VoIP from Vendor, PSTN to Vendor, and VoIP to Vendor. Under each tab there is an edit row and then a list of the existing connections for the given type.


Vendor 'X-Telecom' connections
America/Vancouver
demo-root
Help
Add
Save
Save & Close
Close
Logout
Log
PSTN from Vendor
VoIP from Vendor
PSTN to Vendor
VoIP to Vendor

Edit	Load	H323	SIP	Remote IP *	RTP Proxying	Transl. Rule	Outgoing Rule	CLI Transl. Rule	Account	Delete
				Tariff *	Hide CLI Mode	Description *			Capacity *	
		☐	☑		Optimal				None	
				Termination to X-T	Clear caller					
☰		Y	Y	193.193.193.104	Optimal					☒
				Termination to X-Telecom	Clear caller info	VoIP Termination to X-Telecom			30	

To add a new connection, enter the information in the edit row and then select **Add**. To edit an existing connection, click the **Edit** icon next to the desired connection, modify the necessary fields, and select **Save**. The following fields and functions are provided in the listing:

Field	Description
Edit	Copies the connection information into the edit row.
Load	Opens the load graph for this connection.
Node	Name of the node used for this connection. Not available for "VoIP to Vendor" connections.
The following columns are only available for PSTN connections:	
Port	Only on PSTN-related connections. The specified port

	for PSTN origination or termination. The port can be set using wildcards: **”_’** - match any symbol **‘%’** - match any sequence of symbols The wildcard symbols **‘*’** and **‘?’** should not be used.
CLD	Only available for “from Vendor” connections. Specifies the access number that the customer dialed in order to reach your network.
The following column is only available for “PSTN from Vendor” connections:	
Info Digits	Info Digits is ISDN Originating Line Information sent by the gateway, which allows accounts to be billed depending on where the call is originated from. Simply associate the corresponding tariff with any OLI in Accessibility. Please note that the gateway should be configured to support OLI.
The following column is only available for “VoIP to Vendor” connections:	
Remote IP	IP of the remote gateway. The value in this field should be in one of the following forms: • IP address, e.g. `23.45.67.89` • IP address and port, e.g. `34.56.78.90:5062`. This is required if the remote gateway uses a port different from the standard one. • Special keywords `ANY` or `SIP-UA` • For prefix-based connection matching, specify a value in the form PREFIX:NNN, where NNN is the actual prefix. For example `PREFIX:34567#`
The following column is only available for “VoIP to Vendor“ or “PSTN to Vendor” connections:	
Hide CLI Mode	Describes how outgoing calls for which privacy has been requested by the caller should be displayed to the vendor. • Clear caller info – PortaSwitch will remove all information about the caller from the call initiation info sent to the vendor. • Use private headers – The outgoing call initiation request will contain special flags requesting the vendor to hide the caller information from the call recipient.
The following column is only available for “VoIP to Vendor” or “PSTN to Vendor” connections:	
Hide CLI Mode	Describes how outgoing calls, where privacy is requested by the caller, should be presented to a vendor • Clear caller info – PortaSwitch will remove all information about the caller from the call initiation info, sent to a vendor

	- Use private headers – Outgoing call initiation request will contain special flags, requesting a vendor to hide the caller information from the call recepient
The following two columns are only available for "VoIP to Vendor" or "VoIP from Vendor" connections:	
RTP Proxying	Describes the NAT traversal capabilities of the remote gateway: - Direct - RTP stream should be send directly to this node; RTP proxy should not be used. - Optimal - this node is capable of NAT traversal; no RTP proxying is required unless specifically requested. - OnNat - this node is not capable of NAT traversal; engage RTP proxy if the other party is behind the NAT. - Always – when sending a call to this node, always engage RTP proxy, so that no direct media stream goes to it.
Account	Defines which username/password should be used for authorization of calls via this connection.
Translation Rule	Rule applied to convert a number from a vendor-specific format into the unified format used in billing. Click the wizard icon to launch the Dialing Rules wizard; click the test icon ? to pop up the Test Rule window.
Outgoing Rule	If necessary, a received number can be modified before sending it to the vendor (for example, if a tech prefix is required). This is only applicable if the node which routes the call retrieves routing information from PortaBilling (e.g. PortaSIP or MVTS). This will be filled in automatically if you use the Dialing Rules wizard.
CLI Translation Rule	Translates the CLI (ANI) to a vendor-specific format when routing a call to the vendor's network.
Tariff	The tariff used to calculate the cost of terminating calls via this connection.
Description	A logical description of the connection.
Capacity	The number of simultaneous sessions the connection can support. This parameter is used only to correctly scale the load graph for the connection, not for actual call handling – this is done by the gateway itself.
Delete	Click to remove the connection.

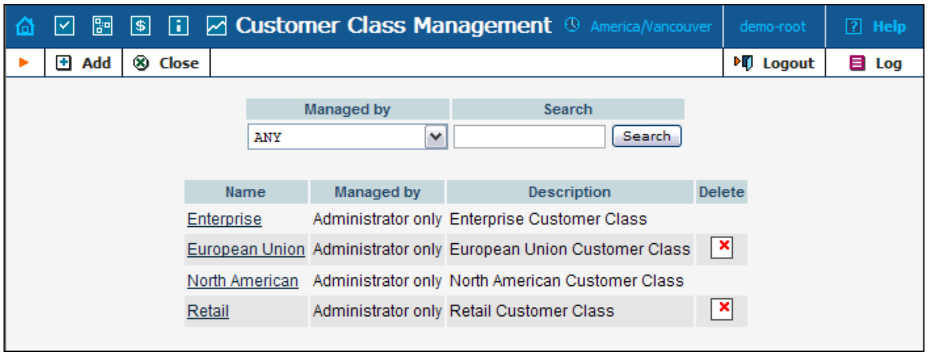
The following two columns are visible only if you are using multiple protocols in your system and have the `ShowConnectionProtocol` feature enabled. By default this option is turned off, and every connection is assumed to be SIP-capable only.

Field	Description
H323	Check if this connection is capable of handling H323 calls.
SIP	Check if this connection is capable of handling SIP calls.

Customer Classes

A customer class is a definition of various properties (e.g. invoice terms) which can be easily applied to a large number of customers.

On the Customer Class Management screen, you can view a list of all currently defined classes. This list provides the following information:



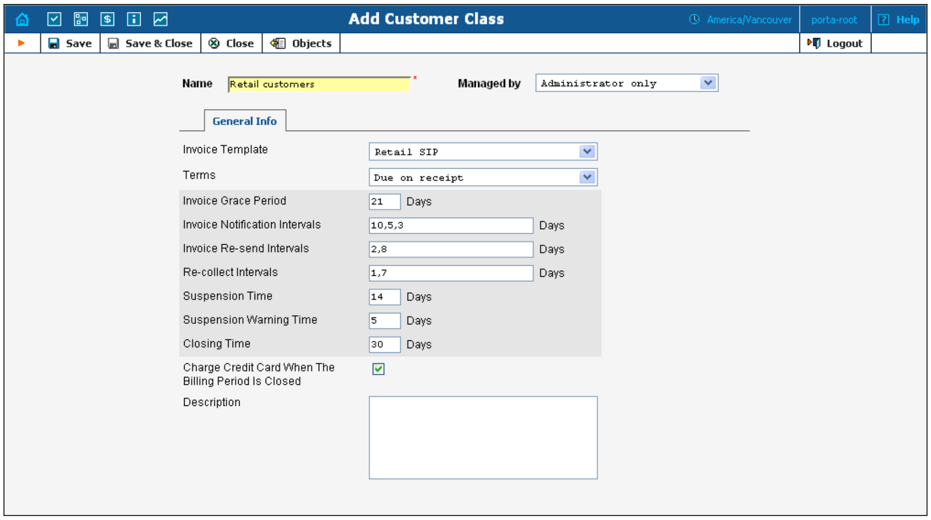
Managed by	Search
ANY	

Name	Managed by	Description	Delete
Enterprise	Administrator only	Enterprise Customer Class	
European Union	Administrator only	European Union Customer Class	☒
North American	Administrator only	North American Customer Class	
Retail	Administrator only	Retail Customer Class	☒

Column	Description
Name	The name of a specific customer class
Managed by	**Administrator only** (default) means that this class will be used for your direct customers, and is accessible only to your administrators. Select a PortaBilling reseller to assign this class for use by a particular reseller.
Description	A logical description of this customer class.

Add/Edit Customer Class

The Add Customer Class page allows you to define a new customer class within PortaBilling.



Name: Retail customers *
Managed by: Administrator only

Invoice Template: Retail SIP
Terms: Due on receipt
Invoice Grace Period: 21 Days
Invoice Notification Intervals: 10,5,3 Days
Invoice Re-send Intervals: 2,8 Days
Re-collect Intervals: 1,7 Days
Suspension Time: 14 Days
Suspension Warning Time: 5 Days
Closing Time: 30 Days
Charge Credit Card When The Billing Period Is Closed: ☑
Description:

The following parameters are available:

Field	Description
Name	Name of the specific customer class.
Managed by	**Administrator only** (default) means that this class will be used for your direct customers, and is accessible only to your administrators. Select a PortaBilling reseller to assign this class for use by a particular reseller.
The following specifies various parameters to be assigned by default to customers within this customer class:	
Invoice Template	Choose either "Do not create invoice" (in this case no invoices will be created, only CSV xDR statistics) or a particular invoice template.
Terms	Description of the invoice terms for a customer to be printed on the invoice.
Invoice Grace Period	Invoice terms, i.e. how many days after invoice generation payment is expected.
Invoice Notification Intervals	Comma-separated list of numbers; each number represents a number of days prior to the invoice due date when a notification regarding an unpaid invoice should be sent. For instance, `14,7,3` means that the customer should receive a notification 14, 7 and 3 days before the due date. (Obviously, if the customer pays after the first notification, no further notifications will be sent). Leave this field empty to disable notifications completely.
Invoice Re-Send Intervals	Comma-separated list of numbers; each number represents a number of days after the invoice due date when a notification regarding the overdue invoice should be sent. For instance, `0,7,14` means

	that the customer will receive a notification on the due date and then 1 and 2 weeks later. (Obviously, if the customer pays after the first notification, no further notifications will be sent). Leave this field empty to disable notifications completely.
Re-collect Intervals	Comma-separated list of numbers; each number represents a number of days after the invoice due date when an attempt should be made to charge a customer's credit card for the invoice amount due. For instance, `0,3,10` means that PortaBilling will attempt to charge the customer's credit card on file on the due date and then 3 and 10 days later. (Obviously, if one of the charge attempts succeeds, no further attempts will be made). Leave this field empty to disable re-collect attempts completely.
Suspension Time	How many days after the due date will the customer's services be suspended if the invoice is still unpaid. Leave this field empty to disable service suspension.
Suspension Warning Time	How many days after the due date should notification of possible suspension of services be sent to the customer. Leave this field empty to disable such notification.
Closing Time	How many days after the due date will the customer's account be closed if the invoice is still unpaid. Leave this field empty to disable automatic account closing. Note that, if defined, the **Suspension Warning Time** must be less than the **Suspension Time**, and the **Suspension Time** must be less than the **Closing Time**.
Charge Credit Card When Billing Period Is Closed	Automatically charge the customer's credit card on file for the full amount due when his billing period is closed – as a result, an invoice will be created with a zero amount due.
Description	A logical description of this customer class.

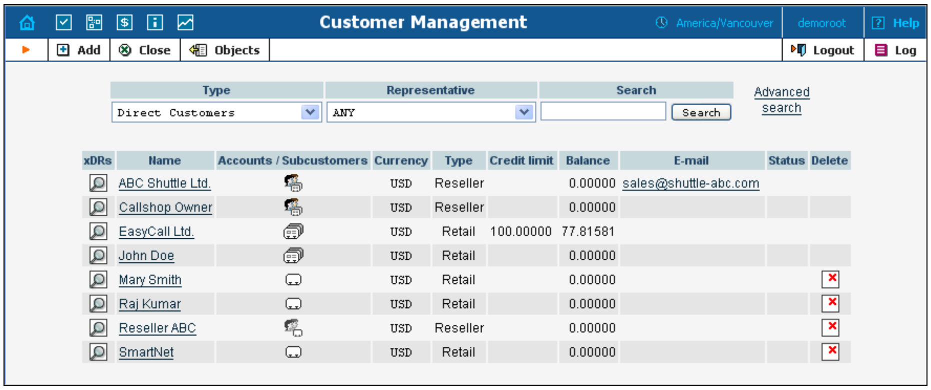
Customer Management

On the Customer Management screen, you can view a list of all registered customers, or use search filters to display a specific set of customers only.

Filter value	Description
ANY	All customers registered in the system

Direct Customers	Customers directly owned by your company (who have a business relationship with you, receive bills from you, and pay to your accounts). This may include both resellers and retail customers.
All Resellers	Only customers of the reseller type.
All Retail	All retail customers; this includes your own retail customers and those of your resellers.
Direct Retail	Only retail customers who are owned by your company.
Sub-customers of Reseller NNN	All sub-customers of a specific reseller.
Representative	Only customers related to a specific representative.
Search	Filter by name. When you enter a value in the search field, all customers who have the search string in their customer name, company name, or first/last name will be displayed.
Advanced Search	Allows you to specify complex search conditions (see more info below)

The screen provides the following information and activities:



Type: Direct Customers
Representative: ANY
Search:

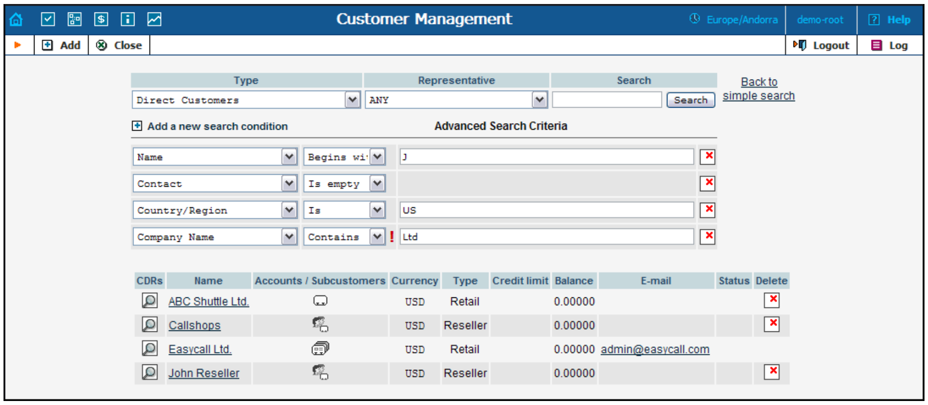
xDRs	Name	Accounts / Subcustomers	Currency	Type	Credit limit	Balance	E-mail	Status	Delete
🔍	ABC Shuttle Ltd.		USD	Reseller		0.00000	sales@shuttle-abc.com		
🔍	Callshop Owner		USD	Reseller		0.00000			
🔍	EasyCall Ltd.		USD	Retail	100.00000	77.81581			
🔍	John Doe		USD	Retail		0.00000			
🔍	Mary Smith		USD	Retail		0.00000			☒
🔍	Raj Kumar		USD	Retail		0.00000			☒
🔍	Reseller ABC		USD	Reseller		0.00000			☒
🔍	SmartNet		USD	Retail		0.00000			☒

Column	Description
xDRs	Click the View (🔍) icon to go to the xDR view page.
Name	The customer's name.
Owned By	The name of the reseller owning the customer (none are displayed if the **Direct Customers** filter is applied).
Accounts/ Sub-customers	Click the Accounts icon to go to the Account Management screen (for retail customers) or the sub-customers icon for the Sub-customers Management screen (for resellers). If there are no accounts under the customer, the

	icon is changed accordingly to 🖵, so that you can easily see this. The same applies to resellers; in this case the "no sub-customers" icon 🖧 is shown.
Currency	The currency in which the customer's account is maintained and billed.
Type	The customer may be either a reseller or a retail customer.
Credit Limit	The credit limit applicable to the customer's account (if any).
Balance	The customer's current balance.
E-mail	E-mail contact for this customer.
Status	The status of the customer's account. The ⚠ icon will appear if the customer's credit has been exceeded. The customer blocked ⛔ icon means that all accounts of this customer have been administratively blocked. The ⌛ icon means all services to this customer have been suspended because of an overdue invoice, and the 🔒 icon means that this customer was closed. The frozen ❄ icon means that periodic payments for this customer have been suspended due to repeated errors (for instance, the customer canceled his credit card and did not enter the information for his new card in PortaBilling).
Delete	Click the delete (☒) icon to remove the customer. The delete icon will only appear if there are no xDRs, accounts or sub-customers owned by the customer, or other entities (products, tariffs, etc.) managed by the customer.

Advanced Search

In advanced search mode you can specify an unlimited number of search conditions. Every condition applies to a particular field (e.g. customer's ZIP code). Click on ⊞ **Add a new search condition** to add another condition.



Type: Direct Customers
Representative: ANY
Search:

Advanced Search Criteria

Name	Begins wi	J
Contact	Is empty	
Country/Region	Is	US
Company Name	Contains	Ltd

CDRs	Name	Accounts / Subcustomers	Currency	Type	Credit limit	Balance	E-mail	Status	Delete
	ABC Shuttle Ltd.		USD	Retail		0.00000			☒
	Callshops		USD	Reseller		0.00000			☒
	Easycall Ltd.		USD	Retail		0.00000	admin@easycall.com		
	John Reseller		USD	Reseller		0.00000			☒

Operation	Description
Is	The value of the field in the customer information must match the search criteria exactly.
Begins with	The value of the field in the customer information must start with the specified value (e.g. if you enter the filter value “John”, customers with the names “John” and “Johnny” will be selected).
Contains	The value of the field in the customer information must contain the specified value somewhere (e.g. if you enter the filter value “Eric”, customers with the names “Eric”, “Erica”, “Maverick” and “American” will be selected).
Is empty	The corresponding field in the customer information must be empty.

All search operations are case-insensitive, so you can enter “Eric” as a search criteria and, even if the customer’s name was originally entered as “eric” or “ERIC”, you will still see him in the list.

All conditions work in conjunction, so in the case of multiple search criteria the customer’s record must satisfy all of them in order to appear in the result list.

During a search operation using auxiliary fields (e.g. fax) or the “contains” comparison, the database cannot use indexes. This will result in a full table scan, meaning an increased load on the server and a longer time to produce the final result. Please avoid using such search operations if not necessary.

By clicking on **Back to simple search** you can switch the form to its original mode.

Add/Edit Customer

The Add Customer page allows you to define a new client entity within PortaBilling. The information required is divided into four tabbed sections: Address Info, Additional Info, Payment Info, and Self-Care Info. The information on the top of the form is required . Information on all the other tabs is optional, and need not be provided when creating the customer. Once created, the customer cannot be changed from a retailer to a reseller, or moved under another reseller.

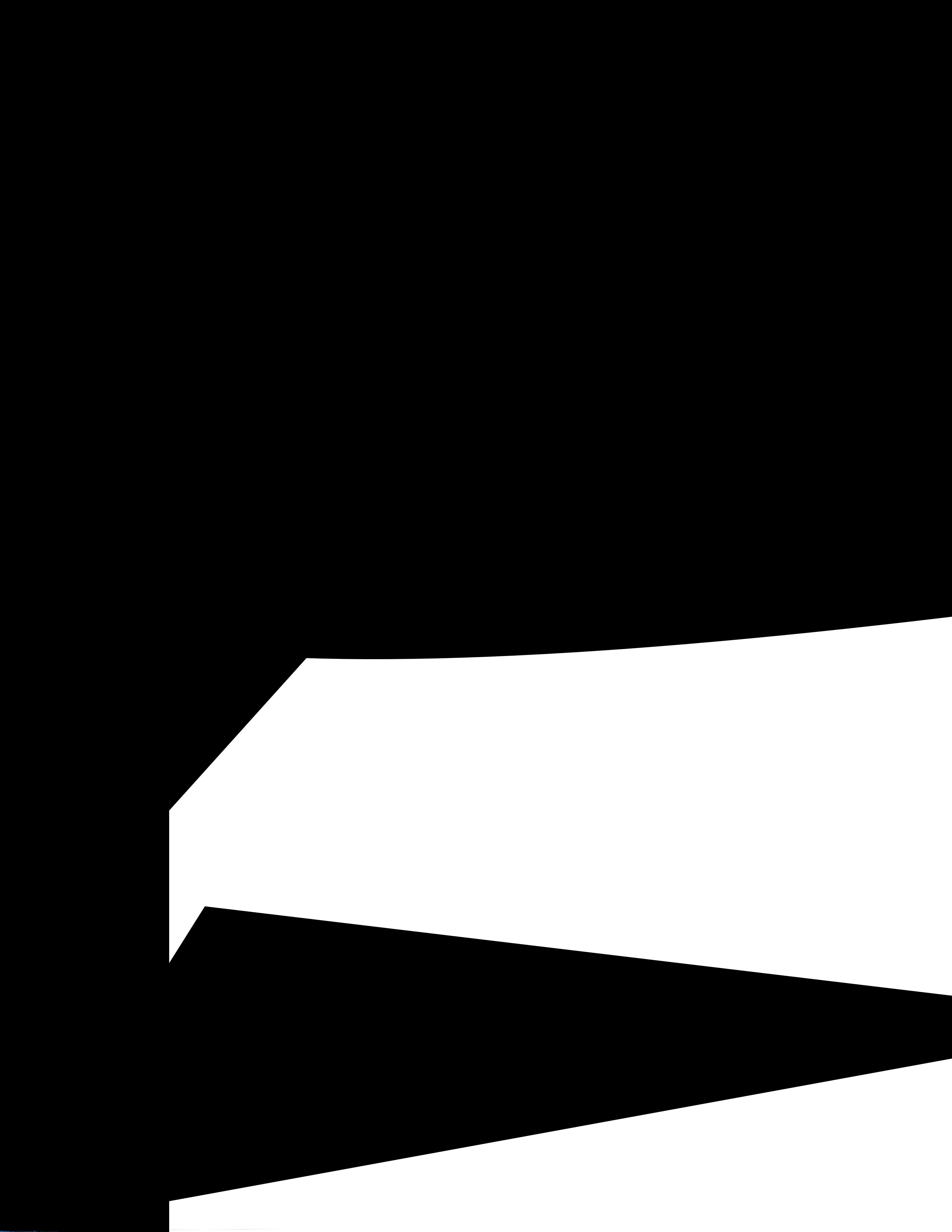
Field	Description
Customer Name	Defines the customer name as it will appear in the PortaBilling system. This is distinct from the **Company Name** field in the **Address Info** tab.
Blocked	Blocks *all* accounts of this Customer.
Currency	The currency must be specified by selecting it from the drop-down list of available currencies. Once saved, the currency cannot be changed.
Opening Balance	The starting balance for this customer.
Type	This can be either “Reseller” or “Retail”.
Customer Class	The customer class assigned to this customer.

Address Info

The Address Info tab provides most of the commonly required contact information. The **Send Statistics** select menu is worth mentioning. The default choice is **Full Statistics**, whereby the customer receives an e-mail after the billing period is closed with an attached CSV file containing all the calls made by his accounts. If invoices are being generated for this customer, an invoice will be attached to the e-mail as well. The CSV file containing all calls may be rather large, so it is possible to use the **Summary Only** option. In this case, the customer receives only a brief summary e-mail. Finally, it is possible to turn off e-mail statistics by choosing the **Do Not Send** option. Also note that you may enable your account manager to receive a copy of every e-mail sent to the customer by entering his e-mail address in the **BCC** field.

Maintenance

The Maintenance tab allows the administrator to correct a customer’s balance (this tab is only available in **Edit Customer** mode).



	customer as well.
Creation Date	The date and time the customer was created (read-only).

Payment Info

The Payment Info screen defines customer payment characteristics. In addition to customary payment information (e.g. preferred payment method, credit card number), there is also a **Credit Limit** field. If left empty, no credit limit is enforced. Otherwise, if Radius authentication is enabled, calls exceeding the limit can be denied. Also, if a **Balance Warning Threshold** is defined and the customer balance reaches this value (defined either as an amount or as a percentage of a positive **Credit Limit** value), an alarm e-mail will be sent to the customer owners (i.e. the system administrators if the customer is direct, or else the reseller).

The **Preferred Payment Method** drop-down contains a list of available payment methods. Some of these, e.g. Cash and Cheque, are "virtual" methods that do not allow manual e-commerce transactions from the administrator interface, payments from customer self-care, or running periodic payments. Any other online methods will be available only if a payment system with such methods has been defined, and is assigned to the same currency as the customer's currency. Other Payment Info fields depend on the currently selected **Preferred Payment Method**, and may vary accordingly.

NOTE: There are a few payment systems which use External Authorization. If such a system has been chosen as a preferred method, no other payment information details may be entered. This is because the payment processor does not allow the system to store and reuse customer payment credentials. For example, if you add a payment system with the Moneybookers payment processor and VISA payment method, and then assign it to the currency USD, customers defined in the USD currency and using VISA as their preferred payment method will not be able to enter their payment credentials. Therefore, it will not be possible to run periodic payments for them or make manual e-commerce transactions with them.

NOTE: Only resellers, direct retail customers, and their accounts are allowed to use a company's payment systems and payment methods for e-commerce payments, both manual and periodic. A reseller should define his own payment systems and assign these to the appropriate currencies in his self-care, so that those payment systems will be used by his sub-customers and their accounts.

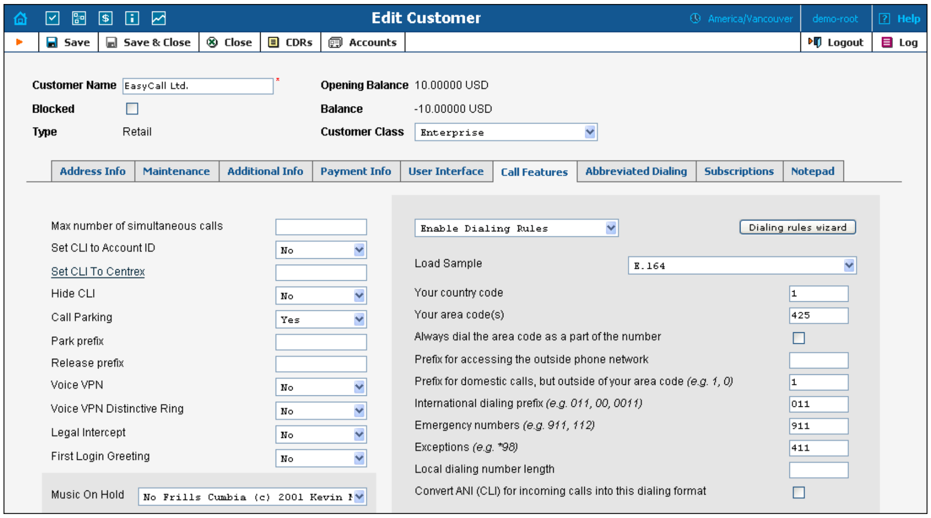
Retention Restrictions

IMPORTANT! A merchant may not use account and transaction information for any purpose other than assisting completion of a payment card transaction, or as specifically required by law. Merchants may collect a payment card number and expiration date independently of a payment card transaction only with the express consent of the cardholder. A merchant may only retain this information for the sole purpose of facilitating future payment transactions. A merchant must not provide this

Frequency	Balance-driven, weekly, or monthly.
Balance Threshold	Only available when the frequency is balance-driven. Payment will be triggered when the balance is higher than the specified threshold.
From, To Date	Dates when the payment will remain active. Click the stopwatch ⏱ icon to make the payment active **immediately**.

Call Features

Using this tab, the administrator can activate/deactivate various call features and set up dialing rules such as an international prefix, outside prefix, or direct number (e.g. 911) for a customer's IP Centrex environment.


Edit Customer
America/Vancouver
demo-root
Help
Save
Save & Close
Close
CDRs
Accounts
Logout
Log
Address Info
Maintenance
Additional Info
Payment Info
User Interface
Call Features
Abbreviated Dialing
Subscriptions
Notepad
Dialing rules wizard

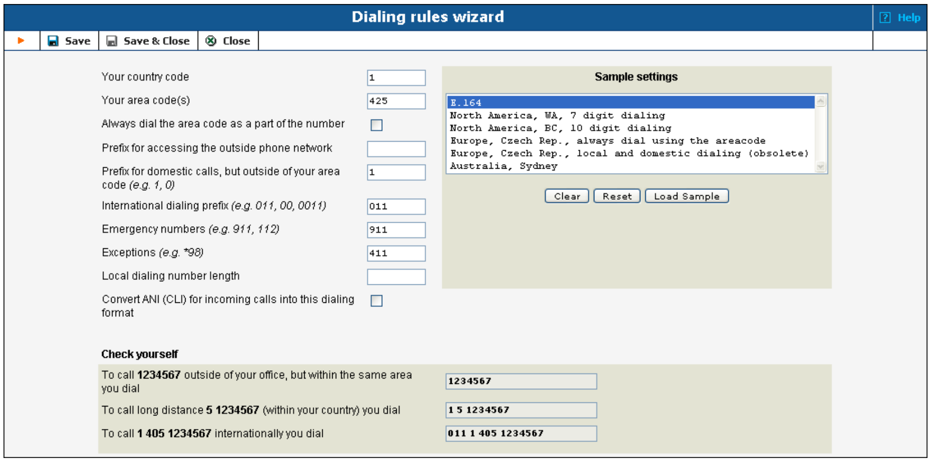
Customer Name: EasyCall Ltd.
Blocked: ☐
Type: Retail
Opening Balance: 10.00000 USD
Balance: -10.00000 USD
Customer Class: Enterprise

Max number of simultaneous calls:
Set CLI to Account ID: No
Set CLI To Centrex:
Hide CLI: No
Call Parking: Yes
Park prefix:
Release prefix:
Voice VPN: No
Voice VPN Distinctive Ring: No
Legal Intercept: No
First Login Greeting: No
Music On Hold: No Frills Cumbia (c) 2001 Kevin M

Enable Dialing Rules
Load Sample: E.164
Your country code: 1
Your area code(s): 425
Always dial the area code as a part of the number: ☐
Prefix for accessing the outside phone network:
Prefix for domestic calls, but outside of your area code *(e.g. 1, 0)*: 1
International dialing prefix *(e.g. 011, 00, 0011)*: 011
Emergency numbers *(e.g. 911, 112)*: 911
Exceptions *(e.g. *98)*: 411
Local dialing number length:
Convert ANI (CLI) for incoming calls into this dialing format: ☐

Field	Description
Max number of simultaneous calls	Only allow a specific number of concurrent calls for accounts of this customer.
Set CLI to Account ID	For outgoing calls, always override the CLI (ANI) value supplied by the IP phone with the username value used for authorization. This is done to prevent service abuse via CLI (ANI) number spoofing.
Set CLI to Centrex	For outgoing calls in the IP Centrex environment (off-net destinations), set the CLI (ANI) number to the specified value. This is typically done so that calls between extensions within the IP Centrex environment (IP phones of this customer) will carry the caller's original CLI, while calls to PSTN numbers will display a reception/switchboard number as the CLI.
Hide CLI	Remove CLI (ANI) information for outgoing calls.

In order to define the phone number format which is used by this customer's accounts, click **Dialing rules wizard** to activate the wizard.



Your country code	1
Your area code(s)	425
Always dial the area code as a part of the number	☐
Prefix for accessing the outside phone network	
Prefix for domestic calls, but outside of your area code *(e.g. 1, 0)*	1
International dialing prefix *(e.g. 011, 00, 0011)*	011
Emergency numbers *(e.g. 911, 112)*	911
Exceptions *(e.g. *98)*	411
Local dialing number length	
Convert ANI (CLI) for incoming calls into this dialing format	☐

Sample settings

- E.164
- North America, WA, 7 digit dialing
- North America, BC, 10 digit dialing
- Europe, Czech Rep., always dial using the areacode
- Europe, Czech Rep., local and domestic dialing (obsolete)
- Australia, Sydney

Check yourself

To call **1234567** outside of your office, but within the same area you dial	1234567
To call long distance **5 1234567** (within your country) you dial	1 5 1234567
To call **1 405 1234567** internationally you dial	011 1 405 1234567

The upper part of the wizard screen allows you to enter important dialing parameters, such as your international dialing prefix. Several sample settings are provided for your convenience. For instance, in order to load sample settings for "traditional" North American dialing, select "North America, WA, 7 digit number dialing" and click **Load Sample**. Click **Clear** to reset all parameters. Click **Reset** to revert to the last saved settings.

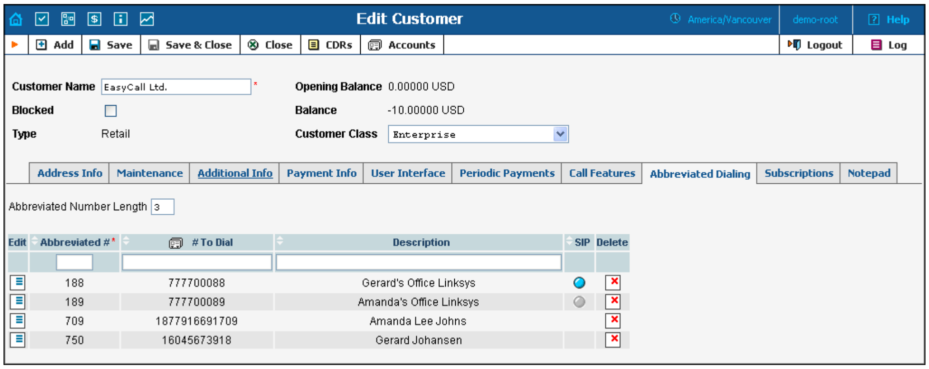
In the bottom part of the wizard screen you can check whether you have described the numbering format correctly. Make sure for all three examples provided (local, domestic and international call) that this is the way you want to dial the numbers.

Abbreviated Dialing

Here the customer may define a list of phone extensions for his IP Centrex environment, plus create abbreviated dialing for external phone numbers. The **Abbreviated Dialing** feature works with both SIP and H.323, with adequate support from either the SIP Server or Cisco TCL IVR.

A PortaBilling customer can set up dialing rules as an international prefix, outside prefix, direct number (e.g. 911), or abbreviated dialing for his accounts.

NOTE: To be able to add extensions / abbreviated numbers, you should enter the maximum length of anticipated digits (e.g. 3 in the case of 123-like numbers) in the **Abbreviated Number Length** field.


Edit Customer
America/Vancouver
demo-root
Help
Add
Save
Save & Close
Close
CDRs
Accounts
Logout
Log
Address Info
Maintenance
Additional Info
Payment Info
User Interface
Periodic Payments
Call Features
Abbreviated Dialing
Subscriptions
Notepad

Customer Name EasyCall Ltd.
Blocked ☐
Type Retail
Opening Balance 0.00000 USD
Balance -10.00000 USD
Customer Class Enterprise

Abbreviated Number Length 3

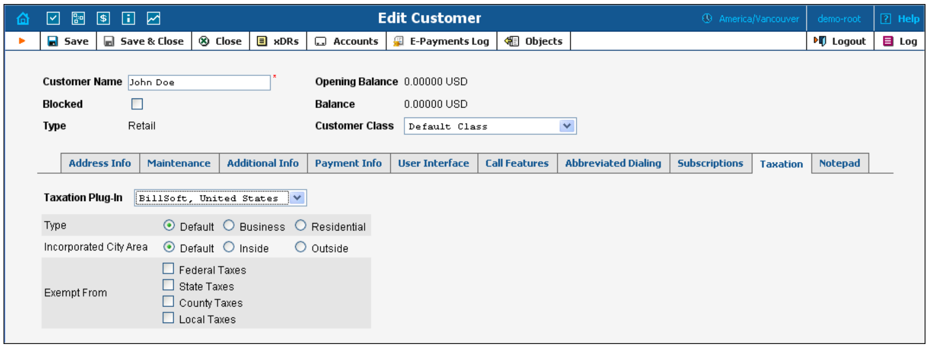
Edit	Abbreviated #*	# To Dial	Description	SIP	Delete
≡	188	777700088	Gerard's Office Linksys	●	☒
≡	189	777700089	Amanda's Office Linksys	○	☒
≡	709	1877916691709	Amanda Lee Johns		☒
≡	750	16045673918	Gerard Johansen		☒

To add a new abbreviated dialing number, click the **Add** button and enter the following information:

Field	Description
Abbreviated #	The number the end-user will dial on his phone (extension number).
# to Dial	The number that the call will be forwarded to. You may enter the ID of one of the customer's accounts (use the icon for a pop-up window where you can see all of them) or any phone number. If you leave this field blank, then the abbreviated number is considered to be a direct number, or "dial as is". This is useful for making sure that special numbers (e.g. 112) are never converted by other translation rules. Note: Phone numbers must be entered in the E.164 format.
Description	Description of this abbreviated number, e.g. "Andrew's IP phone".
SIP	If # to Dial represents the ID of one of the customer's accounts, you will see the SIP "lamp" icon here. It will light up if the account is currently being used by a SIP UA to register with the SIP server; otherwise it will be gray.

Taxation

On this tab you can choose which plugin module will be used to make tax calculations and set up parameters that affect taxation.


Edit Customer
America/Vancouver
demo-root
Help
Save
Save & Close
Close
xDRs
Accounts
E-Payments Log
Objects
Logout
Log
Address Info
Maintenance
Additional Info
Payment Info
User Interface
Call Features
Abbreviated Dialing
Subscriptions
Taxation
Notepad

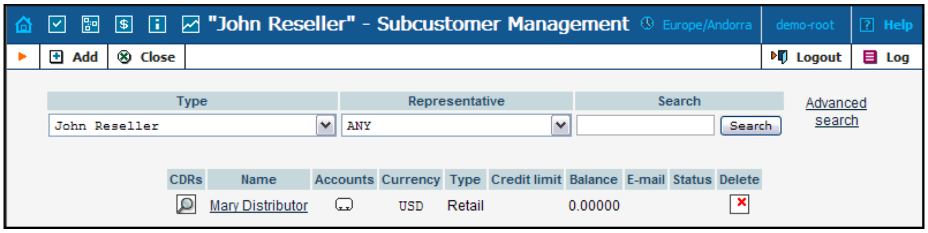
Customer Name	John Doe	**Opening Balance**	0.00000 USD
Blocked	☐	**Balance**	0.00000 USD
Type	Retail	**Customer Class**	Default Class

Taxation Plug-In	BillSoft, United States
Type	● Default ○ Business ○ Residential
Incorporated City Area	● Default ○ Inside ○ Outside
Exempt From	☐ Federal Taxes ☐ State Taxes ☐ County Taxes ☐ Local Taxes

Since these parameters depend on the specific taxation module and your local tax laws, please consult your tax attorney for details regarding their use.

Add/Edit Customer under a Reseller

This is essentially the same as management of customers as described above, the sole difference being that you can only create sub-customers of the Retail type.


"John Reseller" - Subcustomer Management
Europe/Andorra
demo-root
Help
Add
Close
Logout
Log
Search
Advanced search

Type	Representative	Search
John Reseller	ANY	

CDRs	Name	Accounts	Currency	Type	Credit limit	Balance	E-mail	Status	Delete
	Mary Distributor		USD	Retail		0.00000			☒

Account Management

An account is a user of a product such as prepaid cards, voucher-based cards, or credit calling plans. Each account in PortaBilling is associated with a customer. The Account Management screen, accessible from the Customer interface by clicking the **Accounts** button, shows you a query screen for listing existing accounts.

Account Listing

Search Filter

There may be a very large number of accounts in the system, so it is advisable to limit your search using the filter functionality.

Field	Description
Account ID	The primary identification for this account; an

users to specify which attributes of all accounts in the results set should be modified. For example, in order to increase the balance of all accounts by 10 USD, users should:

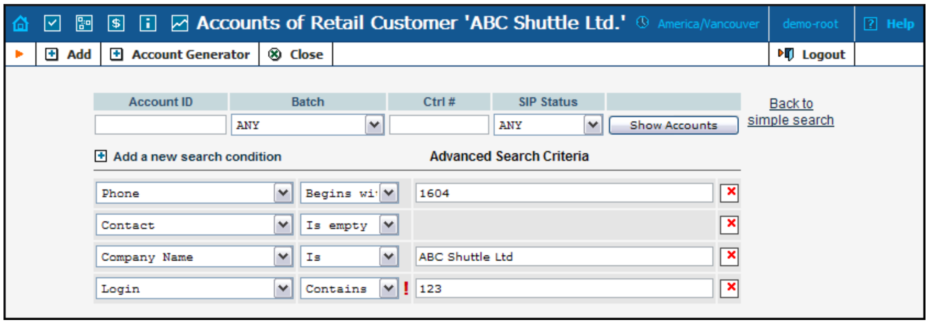
- Check the box next to **Refund/Charge** to indicate that this is one of the updates that should occur,
- Enter “10” next to **Refund**,
- Click the **Update Batch** button at the bottom, and
- Approve the changes when the confirmation dialog appears.

When the page refreshes, the changes will be reflected in the result listing.

NOTE: If you perform a balance adjustment *before* an account is used, it will be regarded as a change to the opening balance, and will not be reflected in the CDRs. For example, if you create a prepaid account worth $10, then realize you have actually sold it to the customer for $20, and so add the extra $10 to the card, it will look to the customer as if the card originally had $20 on it.

Advanced Search

In advanced search mode you can specify an unlimited number of search conditions and the system will fetch the relevant accounts. Click on ⊞ **Add a new search condition** to add another condition.



Account ID:
Batch: ANY
Ctrl #:
SIP Status: ANY

Advanced Search Criteria

Phone — Begins wi — 1604
Contact — Is empty
Company Name — Is — ABC Shuttle Ltd
Login — Contains — 123

Operation	Description
Is	The value of the field in the customer information must match the search criteria exactly.
Begins with	The value of the field in the customer information must start with the specified value (e.g. if you enter the filter value “John”, customers with the names “John” and “Johnny” will be selected).
Contains	The value of the field in the customer information must contain the specified value somewhere (e.g. if you enter the filter value “Eric”, customers with the names “Eric”, “Erica”, “Maverick” and “American” will be selected).
Is empty	The corresponding field in the customer information must be empty.

All search operations are case-insensitive, so you can enter "Eric" as a search criteria and, even if the customer's name was originally entered as "eric" or "ERIC", you will still see him in the list.

All conditions work in conjunction, so in the case of multiple search criteria the customer's record must satisfy all of them in order to appear in the result list.

During a search operation using auxiliary fields (e.g. fax) or the "contains" comparison, the database cannot use indexes. This will result in a full table scan, meaning an increased load on the server and a longer time to produce the final result. Please avoid using such search operations if not necessary.

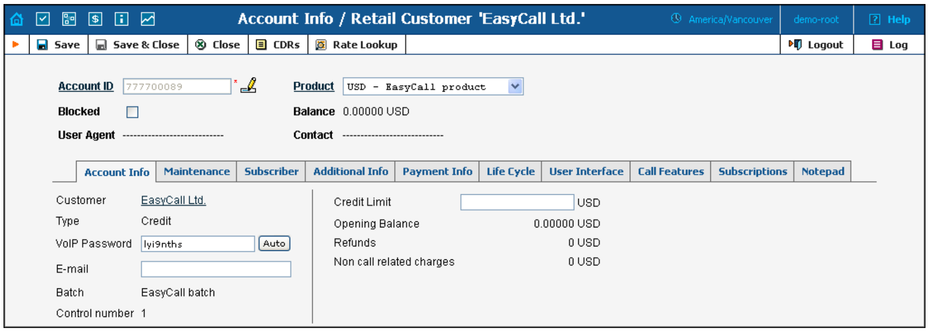
By clicking on **Back to simple search** you can switch the form to its original mode.

Account Info / Add Account

To add a new account, select **Add**. For bulk account generation, select **Account Generator**.

The Account Info page provided for the administrator is similar to the Add Account interface; however, some account details are read-only. The administrator is unable to modify Type, Batch, Control Number and Opening Balance. When making changes, the administrator can use the Notepad tab to provide a comment detailing the reason for these changes (for example, "product changed, credited $50").

Changes can be confirmed by selecting **Save** or **Save&Close**.


Account Info / Retail Customer 'EasyCall Ltd.'
America/Vancouver
demo-root
Help
Save
Save & Close
Close
CDRs
Rate Lookup
Logout
Log
Account Info
Maintenance
Subscriber
Additional Info
Payment Info
Life Cycle
User Interface
Call Features
Subscriptions
Notepad

Account ID 777700089 *

Product USD - EasyCall product

Blocked ☐

Balance 0.00000 USD

User Agent ---------------------------

Contact ---------------------------

Customer EasyCall Ltd.

Type Credit

VoIP Password lyi9nths Auto

E-mail

Batch EasyCall batch

Control number 1

Credit Limit USD

Opening Balance 0.00000 USD

Refunds 0 USD

Non call related charges 0 USD

Field	Description
Account ID	The primary identification of this account. The ID is read-only by default; you can modify it by clicking the Edit ID icon. The maximum allowed ID length is 32 characters.
Blocked	Specifies whether the account is blocked or unblocked.

	If this is checked, the account will be unusable; it is usually unblocked automatically when the account is used for the first time.
Product	The product providing pricing plans for this account.
Balance	The balance for this account.
User Agent	If this account is currently used by a SIP UA to register with the SIP server, the user agent identification info is displayed.
Contact	The URI of the user agent used by the SIP Proxy to contact the IP phone.
Account Info Tab	
Account Type	The account type may be "Debit", "Credit", or "Voucher". Debit is usually associated with prepaid cards. Credit is an account that will be invoiced for incurred costs. Voucher accounts are "refill coupons" for other types of accounts.
Credit Limit	Only available when the account type is set to "Credit". Defines the credit allowance in the account's currency.
VoIP Password	The password used to authenticate any calls made using this account.
E-mail	If an account has e-mail info associated with it, the owner of the account can reset the password for self-care access, and the new password will be sent to this e-mail address.
Batch	Accounts are grouped into batches. If a new batch name is provided in the text field, a new batch will be created when you add the account. Otherwise, an existing batch should be selected from the drop-down list.
Control Number	Read-only. The sequential number of the account in the current batch. Batch name and control number uniquely identify an account, and are often used for prepaid calling cards.
Zero Balance Date	Applicable only for debit accounts; specifies when the account has used up all of its available funds.
Opening Balance	The opening balance for this account.
Refunds	The amount refunded to the account owner.
Non-Call Related Charges	Charges not directly associated with calls the account has made; for instance, a maintenance fee or login fee.
Maintenance Tab	
Field	**Description**
Action	**Manual Charge:** The debit account balance in PortaBilling100; for instance, if you are selling SIP

	phones to a customer. This means the balance will be changed so that the account is able to make fewer calls. **Manual Refund:** The credit account balance in PortaBilling100; for instance, if the account files a complaint and you agree to give credit toward future service use. This means the balance will be changed so that the account is able to make more calls. **E-Commerce Charge:** Transfers a given amount from an account's e-commerce account to a company merchant account and issues credit toward the account's balance in PortaBilling100. **E-Commerce Refund:** Transfers a given amount from a company merchant account to an account's e-commerce account; for instance, if a customer/account files a complaint and you agree to a refund. This transaction will not affect the account's balance in PortaBilling100. **Authorization Only:** Verifies whether the account's e-commerce account is valid and reserves a given amount. This will return a transaction ID, which may be used later in a capture payment transaction. This transaction will not affect the account's balance in PortaBilling100, nor the account's e-commerce account. **Capture Payment:** Transfers a given amount from an account's e-commerce account to a company merchant account and issues credit toward the account's balance in PortaBilling100. This requires the transaction ID obtained via an authorization only transaction. The amount must be equal to or less than that in the corresponding authorization only transaction. **Manual Payment:** Credits the account balance. Use this when receiving payment from the account owner. Manual payment will allow the account to make more calls. **Promotional Credit:** Credits the account balance. Use this when you are giving the account owner a credit toward future service due to a sales promotion. A promotional credit will allow the account to make more calls.
Amount	Amount to charge/refund.
Visible Comment	A comment on this transaction visible to the customer in the xDR browser.
Internal Comment	An internal comment on this transaction; not visible in the xDR browser, and accessible only from the database directly.
Subscriber Tab	

	The Subscriber tab provides most of the commonly required contact information for the account's owner.
Additional Info Tab	
IP Phone, IP Phone Port	Indicates the IP phone and associated port assigned to the account. Default – not set.
E-commerce Enabled	Allows the account's owner to make online payments or set up periodic payments on the account self-care page. Note: Configuring the account to enable online payments (both manual and periodic) is done in exactly the same way as for customers. First you should set up a suitable payment system.
Discount Plan	Assign a discount plan to this account. When a new account is created, it will be assigned by default a discount plan associated with the account's product.
Life Cycle Tab	
Activation Date	The date from which the account is usable.
Expiration Date	The date from which the account will be unusable. If you do not want the account to expire, leave this field blank. Note: This date is assumed to be in the billing server's time zone, not the account's.
Lifetime	Relative to the activation date, the account will expire on first usage date + lifetime days. If you do not want to use this feature, leave the field blank.
Issue Date	The date when the account was created.
First Usage, Last Usage	The date when the account was in use for the very first/last time.
Last Recharge	Specifies the last time the account was recharged using a voucher (either via the self-care page or IVR).
User Interface	
Login	Account login for the account user interface. Click the Account ID button to make the login identical to the Account ID.
Password	User interface password for the account.
Access Level	Access level assigned to the account.
Time Zone	Time zone for the account.
Web Interface Language	Displays the account user interface in a particular language.
Call Features Tab	
You have the option of expressly specifying the value of a given parameter or using the "Customer default" option. In the latter case, this	

parameter is assumed to be the value defined in the customer's configuration (the global value for this IP Centrex).	
Set CLI to Account ID	For outgoing calls, always override the CLI (ANI) value supplied by the IP phone with the username value used for authorization. This is done to prevent service abuse via CLI (ANI) number spoofing.
Set CLI to Centrex	For outgoing calls in the IP Centrex environment (off-net destinations), set the CLI (ANI) number to the specified value. This is typically done so that calls between extensions within the IP Centrex environment (IP phones of this customer) will carry the caller's original CLI, while calls to PSTN numbers will display a reception/switchboard number as the CLI.
Hide CLI	Remove CLI (ANI) information for outgoing calls.
Voice VPN Distinctive Ring	For incoming calls from phones within the IP Centrex environment, use a ring pattern different from the default one.
Legal Intercept	Intercept all incoming and outgoing calls of this customer for law enforcement purposes.
E911	Activate emergency services for this account
Music On Hold	Defines the music on hold to be used with the account. Choose None to disable this feature, or select the default setting for the account's customer. To upload your own music, select a file on your local file system using the Browse button. To rename the music, enter the desired name in the Music Name field; otherwise the local file name will be used. The uploaded music will replace the previous entry in the list, and is usually enabled within 10 minutes.
Preferred IVR Language	The language the user prefers when interacting with an IVR application.
Associated Number	Specifies the number to be sent back to the IVR in an authorization confirmation. For example, this might be a redirect to a technical support number in an IVR application. Another example might be a quick-dial number for prepaid accounts. (In this case, the redirect number may be maintained via web self-provisioning.)
Forward Mode	Assigns a call forwarding mode to this account: • No Forwarding: Disables call forwarding entirely. • Follow-me: Enables standard follow-me forwarding. • Advanced Forwarding: Activates advanced call forwarding mode. • Forward to SIP URI: Replaces the **Follow-me** tab with a simplified **Forward** tab, where you can

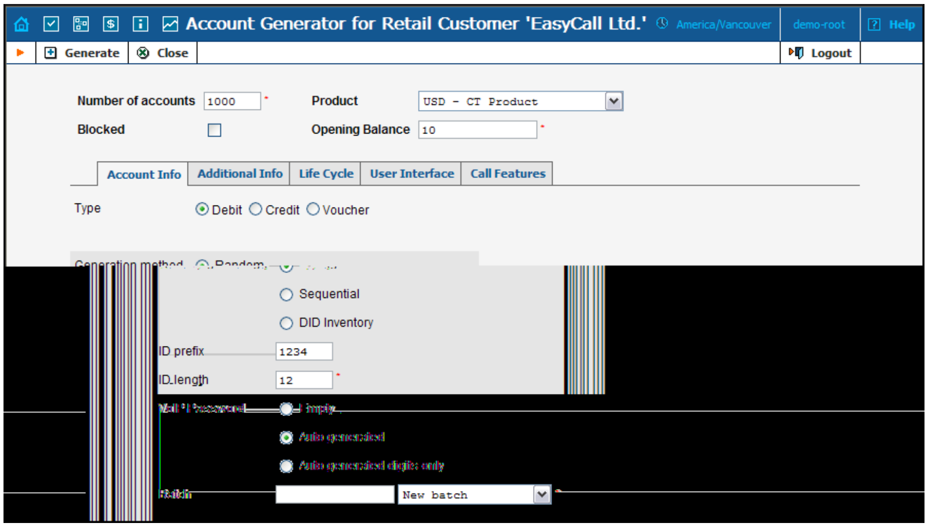
	enter a forwarding destination as a CLD@IP. - Forward to CLD: A simplified type of forwarding where you specify a single phone number to which calls will be sent.
Maximum Forwards	When you select follow-me or advanced call forwarding, you must also provide a value for the **Maximum Forwards** parameter, so as to limit the number of concurrently active forwarding destinations allowed. Please note that you do not have to limit the total number of phone numbers entered, but rather the number of phone numbers active at any given moment of time. For instance, a user may have a list of 20 numbers, each active in its own time period, some temporarily turned off, and so on. When call forwarding is done, PortaBilling will compute a list of numbers which may be used at that moment, and choose only the first N in the list, where N is the number specified in **Maximum Forwards**.
UM Enabled	Allows the account user to access the unified messaging system. See the **PortaUM Administrator Guide** for more details. Please note that if an account has **UM Enabled** activated, there will be an additional link next to it on the administrator interface: Manage UM Account. By clicking on this you will go automatically to the account's UM administration pages. This is extremely useful for helpdesk people, since they can quickly check the configuration of an account's auto-attendant, call queues, and the like. Also note that it may take a few minutes before an account is fully provisioned in PortaUM. Thus if you click on the link immediately after activating **UM Enabled**, it most likely will not work yet.
Timeout, sec	How long the IP phone will ring before a call goes to follow-me numbers (if any) or voicemail.
Follow-me Tab	
Follow-me	Possible modes of use of this service. - Never – do not use at all. - When Unavailable – redirect a call only if the primary phone does not answer. - Always – redirect all calls.
Order	Specifies the order for redirecting a call. As listed – call every active follow-me number from the first (topmost) number to the last, until the call is answered; otherwise use a random order.

Threshold	The threshold value for the currently used discount level. When an account's internal counter reaches this value, the next level discount will start to be applied according to the discount scheme. When the counter reaches the last numeric threshold value, it will be shown here. N/A means that there is no numeric threshold defined in the scheme, or no scheme has been defined at all.
Used	The current value of the account's counter associated with this destination group.
Remaining	The amount remaining before the threshold value.
Current Discount	The value of the discount currently applied to the account.
Next Discount Level	The value of the next level discount.
Discount Info	Click the information ? icon for a textual representation of the discount scheme.
Subscriptions Tab	
Displays the subscription plans currently applied to this account. Subscriptions are divided into three groups • **Pending Subscriptions** displays subscriptions which are not active yet (i.e. they will be activated sometime in the future). • **Active Subscriptions** displays currently activated (and billed) subscription plans. • **Closed Subscriptions** displays subscriptions which have already been closed.	
Subscription	Choose one of the available subscription plans from the list.
Discount Rate, %	Enter a discount rate for this subscription. If you leave this field empty, it means that the discount rate defined in the customer information should be applied. If you enter any value, it will override the customer discount rate. 0 means no discount (i.e. the rate defined in the subscription plan is applied).
Start Date	Enter the desired subscription activation date: immediately, or sometime in the future.
Activation Date	(Read-only) Displays the date when the subscription was activated.
Finish Date	Enter the date when this subscription should be automatically canceled.
Billed To	(Read-only) The date to which subscription charges have already been applied.
Mandatory	A flag indicating that this subscription comes from the account's product, and so cannot be closed until the account has this product assigned to it.

Close	Allows you to close one of the optional subscriptions.

Account Generator

The Account Generator should be used when large numbers of accounts are to be generated (for example, when issuing prepaid cards) so that individual accounts need not be entered manually. The account IDs will be generated either sequentially or randomly, as will the web password, so as to prevent possible defrauding. The generation process will run offline, so that the accounts are not visible from the Account Management page until the process is complete. The customer will then receive an e-mail notification regarding completion of the task, as well as another e-mail listing all the accounts in CSV format, including the values “Batch”, “Control Number” (a sequential index), “PIN” (account ID), “Web login” (by default identical to the account ID) and “Password” (web password).



Number of accounts: 1000
Product: USD - CT Product
Blocked: ☐
Opening Balance: 10
Type: ● Debit ○ Credit ○ Voucher
Generation method: Random ○ Sequential ○ DID Inventory
ID prefix: 1234
ID length: 12
Batch: New batch

The Account Generator interface is very similar to Add Account, with the following exceptions:

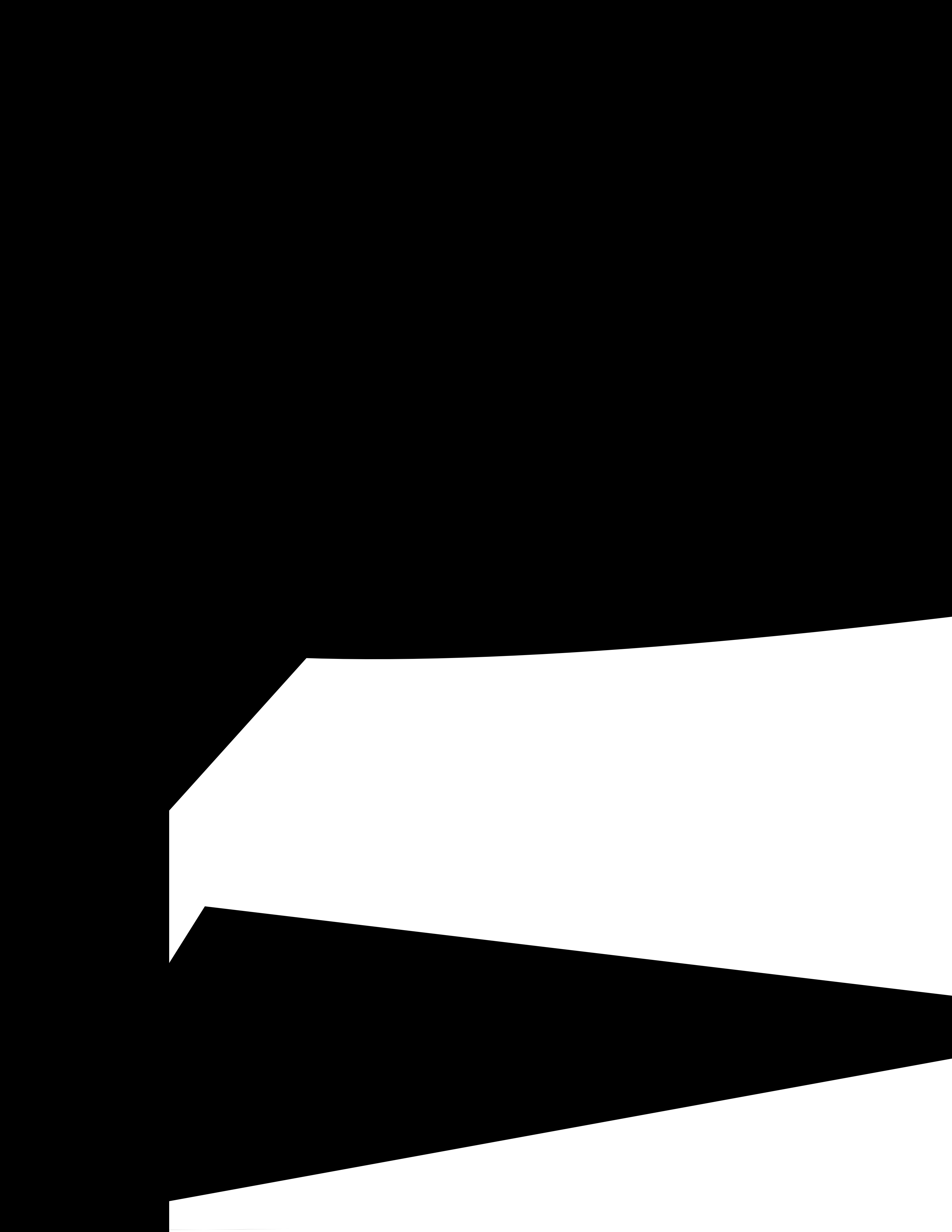
Field	Description
Number of Accounts (replacing Account ID)	The number of accounts to be generated.
Account Info tab	
Generation method	**Random** will produce unique unpredictable account IDs with a specified length and prefix. **Sequential** will create accounts with incremental IDs, e.g. if the starting ID is specified as 5554000, it will create accounts 5554000, 55540001, 55540002 and so on; see below for more details. **DID Inventory** will generate accounts based

	on the selected DID Owner Batch, where the user has the option of choosing the starting DID.
ID prefix	Preset leading digits in the account ID; leave empty to make the account ID totally random.
ID length	Total ID length, including ID prefix.
Starting ID	Only available in sequential generation, and always numeric.
VoIP Password	Can be generated automatically, or left empty to allow end-users to login using account ID only (typically used for prepaid cards). The "Auto-generated digits only" option allows you to create sufficiently secure passwords (with a specified password length) consisting of digits only, so that they can be entered from a phone's touchpad.
User Interface tab	
Login	Can be set as identical to the account ID, or left empty to disable access to the account self-provisioning interface.
Password	Can be generated automatically, or left empty to allow end-users to login using account ID only.

Assigning an Account ID

Choose Random if you want a relatively small amount of unpredictable IDs within a large enough range of possible numbers. Please note that "random" means not only "generated randomly" but also "difficult to guess"; therefore, the ratio between the number of generated PINs and the number of total possible PINs should be sufficiently low. For instance, PortaBilling will refuse to generate 5,000 PINs with ID prefix 33333 and ID length 9, because in this case there are 10,000 possible PINs; if we generate 5,000 actual pins, there is a 50% chance of using someone else's PIN just by entering one wrong digit. Thus, in the example above, the PIN length should be set at 10 or even 11 digits (with a 5% or 0.5% chance of guessing the PIN, respectively).

Choose Sequential if you want to generate a large amount of accounts at once. In this case, the first generated ID will be the number following the largest existing number within the range defined by the ID prefix and ID length; the next ID will follow the first, and so on. For example, if you specify 100 accounts with ID prefix "1" and ID length 4, and there are already three accounts within the defined range (1000, 1100, 1200), the first generated ID will be 1201, the second 1202, and the last 1300. In either case, if there is not enough room to generate the specified number



PORT

[illegible] used (i.e. VISA or MasterCard), the actual card/account number is displayed in the "safe" form (some of the digits are masked by an x).

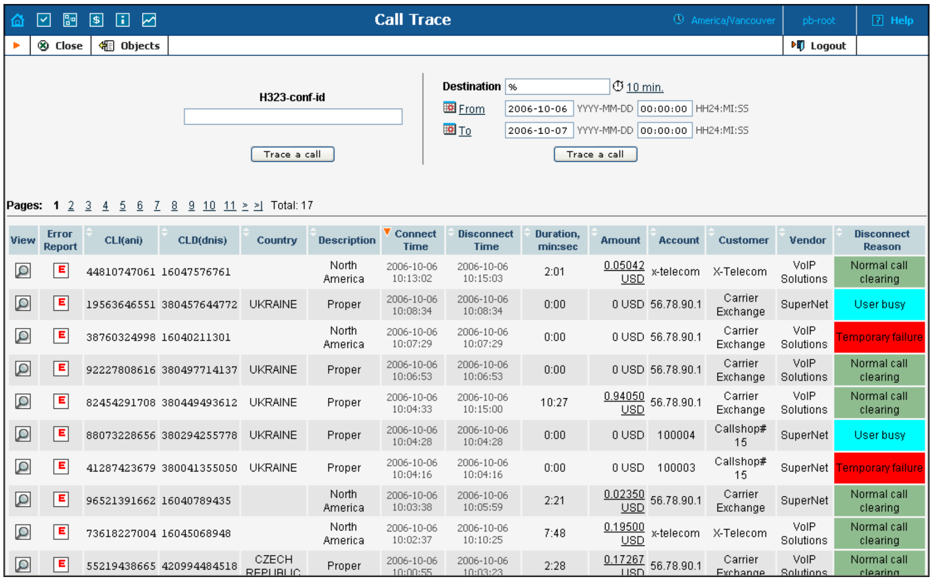
	processor website).

5. Help Desk

Call Trace

The call tracing utility allows you to determine the characteristics of a specific call when you know the **h323-conf-id** or the **destination**, which may be specified exactly, or using a wildcard. (For example, all calls to England may be specified as "44%" in the destination field). A date range for the search must be specified; however, it is highly recommended to set it to the smallest range necessary, in order to reduce waiting time and server load. Ideally, the search window should contain one day only.

To initiate a query, click the **Trace a Call** button. If no results appear, try broadening the query. When the results appear, locate the desired call within the result set. If there are too many results, they will be divided across pages, although in this case it is advisable to narrow the query.



H323-conf-id

Destination %

From 2006-10-06 YYYY-MM-DD 00:00:00 HH24:MI:SS

To 2006-10-07 YYYY-MM-DD 00:00:00 HH24:MI:SS

Pages: 1 2 3 4 5 6 7 8 9 10 11 > >| Total: 17

View	Error Report	CLI(ani)	CLD(dnis)	Country	Description	Connect Time	Disconnect Time	Duration, min:sec	Amount	Account	Customer	Vendor	Disconnect Reason
🔍	E	44810747061	16047576761		North America	2006-10-06 10:13:02	2006-10-06 10:15:03	2:01	0.05042 USD	x-telecom	X-Telecom	VoIP Solutions	Normal call clearing
🔍	E	19563646551	380457644772	UKRAINE	Proper	2006-10-06 10:08:34	2006-10-06 10:08:34	0:00	0 USD	56.78.90.1	Carrier Exchange	SuperNet	User busy
🔍	E	38760324998	16040211301		North America	2006-10-06 10:07:29	2006-10-06 10:07:29	0:00	0 USD	56.78.90.1	Carrier Exchange	VoIP Solutions	Temporary failure
🔍	E	92227808616	380497714137	UKRAINE	Proper	2006-10-06 10:06:53	2006-10-06 10:06:53	0:00	0 USD	56.78.90.1	Carrier Exchange	VoIP Solutions	Normal call clearing
🔍	E	82454291708	380449493612	UKRAINE	Proper	2006-10-06 10:04:33	2006-10-06 10:15:00	10:27	0.94050 USD	56.78.90.1	Carrier Exchange	VoIP Solutions	Normal call clearing
🔍	E	88073228656	380294255778	UKRAINE	Proper	2006-10-06 10:04:28	2006-10-06 10:04:28	0:00	0 USD	100004	Callshop# 15	SuperNet	User busy
🔍	E	41287423679	380041355050	UKRAINE	Proper	2006-10-06 10:04:16	2006-10-06 10:04:16	0:00	0 USD	100003	Callshop# 15	SuperNet	Temporary failure
🔍	E	96521391662	16040789435		North America	2006-10-06 10:03:38	2006-10-06 10:05:59	2:21	0.02350 USD	56.78.90.1	Carrier Exchange	SuperNet	Normal call clearing
🔍	E	73618227004	16045068948		North America	2006-10-06 10:02:37	2006-10-06 10:10:25	7:48	0.19500 USD	x-telecom	X-Telecom	VoIP Solutions	Normal call clearing
🔍	E	55219438665	420994484518	CZECH REPUBLIC	Proper	2006-10-06 10:00:55	2006-10-06 10:03:23	2:28	0.17267 USD	56.78.90.1	Carrier Exchange	VoIP Solutions	Normal call clearing

The result listing shows the origination number, the number dialed, the destination location, connect and disconnect times, duration, account and customer (in the case of product usage), vendor (in the case of normal vendor termination), and the call status while disconnecting, which is color-coded according to the table below. Select the View (🔍) icon to go to a detailed page describing the call.

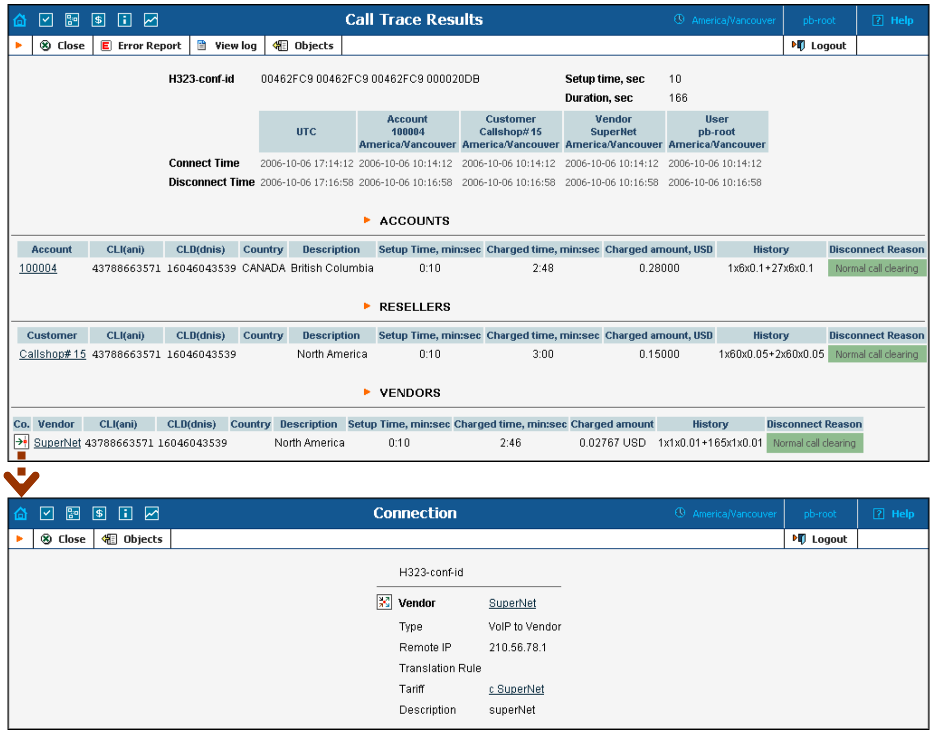
Possible Reasons for Disconnect:

Reason	Color		Reason	Color
Normal completed call	🟩		Calling side error	🟨
Normal uncompleted call	🟦		Called side error	🟧

Call progress code	🟩		Network error	🟥

Call Trace Detail

The detailed Call Trace Results page shows additional call details, such as the h323-conf-id for the call and the setup time, as well as a detailed breakdown of the charges applied to each entity (accounts, resellers, and vendors). You may view the connection details for a particular vendor by selecting the Connection icon. On the subsequent Connection detail page, you may view all connections for a particular vendor by clicking the Connections icon.



H323-conf-id	00462FC9 00462FC9 00462FC9 000020DB
Setup time, sec	10
Duration, sec	166

	UTC	Account 100004 America/Vancouver	Customer Callshop# 15 America/Vancouver	Vendor SuperNet America/Vancouver	User pb-root America/Vancouver
Connect Time	2006-10-06 17:14:12	2006-10-06 10:14:12	2006-10-06 10:14:12	2006-10-06 10:14:12	2006-10-06 10:14:12
Disconnect Time	2006-10-06 17:16:58	2006-10-06 10:16:58	2006-10-06 10:16:58	2006-10-06 10:16:58	2006-10-06 10:16:58

ACCOUNTS

Account	CLI(ani)	CLD(dnis)	Country	Description	Setup Time, min:sec	Charged time, min:sec	Charged amount, USD	History	Disconnect Reason
100004	43788663571	16046043539	CANADA	British Columbia	0:10	2:48	0.28000	1x6x0.1+27x6x0.1	Normal call clearing

RESELLERS

Customer	CLI(ani)	CLD(dnis)	Country	Description	Setup Time, min:sec	Charged time, min:sec	Charged amount, USD	History	Disconnect Reason
Callshop# 15	43788663571	16046043539		North America	0:10	3:00	0.15000	1x60x0.05+2x60x0.05	Normal call clearing

VENDORS

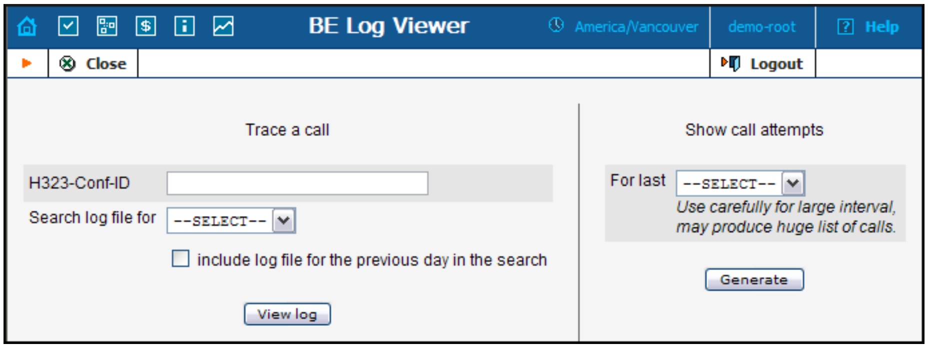
Co.	Vendor	CLI(ani)	CLD(dnis)	Country	Description	Setup Time, min:sec	Charged time, min:sec	Charged amount	History	Disconnect Reason
	SuperNet	43788663571	16046043539		North America	0:10	2:46	0.02767 USD	1x1x0.01+165x1x0.01	Normal call clearing

H323-conf-id

Vendor	SuperNet
Type	VoIP to Vendor
Remote IP	210.56.78.1
Translation Rule	
Tariff	c SuperNet
Description	superNet

View Billing Engine Logs

The Log Viewer page allows the raw billing log of a selected call to be viewed using the H323-Conf-ID (or, in the call detail screen above, just click the **View log** button in the toolbar).



Trace a call

H323-Conf-ID

Search log file for --SELECT--

☐ include log file for the previous day in the search

Show call attempts

For last --SELECT--

Use carefully for large interval, may produce huge list of calls.

Field	Description
H323-Conf-ID	The H323-Conf-ID of a call.
Search log file for	The day when the call was made.
Include log file for the previous day in the search	This option extends the search by adding the previous day.

If you do not know the H323-Conf-ID for a call you have just made, you can use the right side of the form to display all call attempts made within a certain interval (this will also include failed call attempts, which makes it extremely useful for troubleshooting problems when you are unable to make outgoing calls, e.g. due to an authorization failure).

You will see a list of call attempts, with the call initiation time, H323-Conf-ID and CLI/CLD for each; click on the underlined H323-Conf-ID to see the billing engine log for it.

Active Calls

The Active Calls page shows calls that are currently in progress or have been completed recently. It indicates the time the call started, the elapsed call duration, and who is making the call, and describes which gateways the call is going through.

Since the total number of simultaneous calls in your system can be quite large, you can display only a certain subset of all calls, by setting a filter for:

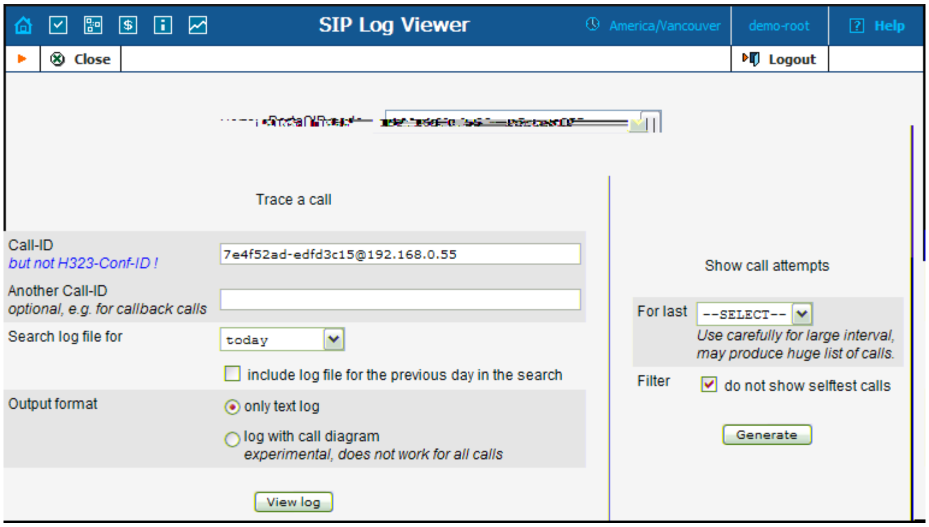
- **Customer** – name of the customer who is making a call;
- **Vendor** – carrier to whom the call has been terminated;
- **Node** – element of your network (PortaSIP server, gateway, etc.) the call is going through (e.g. you would like to see all calls originating on your Cisco AS5300 gateway in New York);
- **Call duration** – only displays calls lasting for more than a certain number of minutes.

PO

If you want to delete such calls, just mark all of them (using the checkbox in the column on the far right) and press the “Cleanup calls presentation” button. The “Call duration greater than, min.” option allows you to auto-select calls with a duration greater than the entered value, so that you can quickly select suspiciously long calls.

SIP Log Viewer

The Sip Log Viewer page allows you to view billing logs of PortaSIP calls. You need to know the Call-ID of the specific call in order to trace it. If you do not know the call-id (e.g. you just made a phone call from a SIP phone and it failed), you can display all call attempts for a recent period and locate the call-id of “your” call according to CLD or other parameters.



Trace a call

Call-ID *but not H323-Conf-ID !*: 7e4f52ad-edfd3c15@192.168.0.55

Another Call-ID *optional, e.g. for callback calls*:

Search log file for: today

☐ include log file for the previous day in the search

Output format:

● only text log

○ log with call diagram *experimental, does not work for all calls*

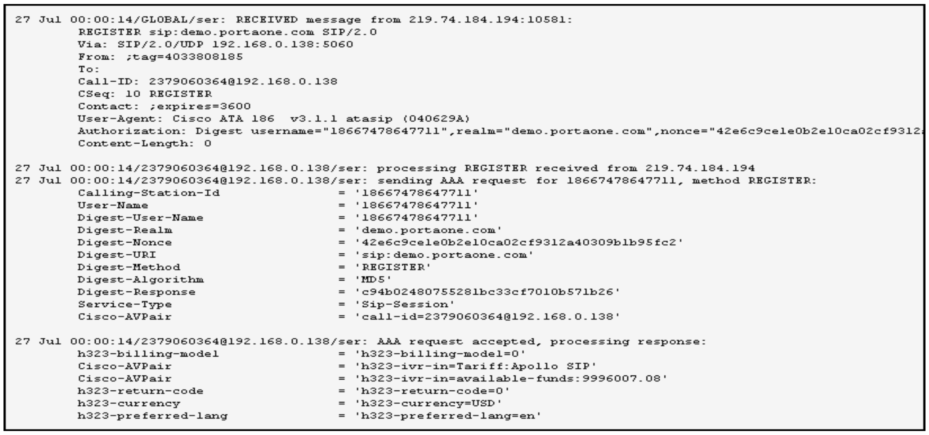
Show call attempts

For last: --SELECT--

Use carefully for large interval, may produce huge list of calls.

Filter: ☑ do not show selftest calls

Text-only log:

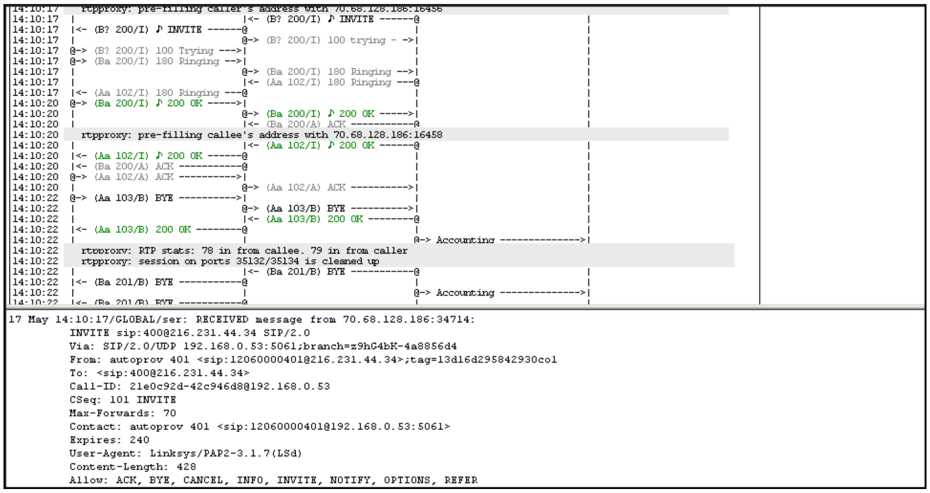


```
27 Jul 00:00:14/GLOBAL/ser: RECEIVED message from 219.74.184.194:10581:
        REGISTER sip:demo.portaone.com SIP/2.0
        Via: SIP/2.0/UDP 192.168.0.138:5060
        From: ;tag=4033808185
        To:
        Call-ID: 2379060364@192.168.0.138
        CSeq: 10 REGISTER
        Contact: ;expires=3600
        User-Agent: Cisco ATA 186  v3.1.1 atasip (040629A)
        Authorization: Digest username="18667478647711",realm="demo.portaone.com",nonce="42e6c9cele0b2el0ca02cf9312
        Content-Length: 0

27 Jul 00:00:14/2379060364@192.168.0.138/ser: processing REGISTER received from 219.74.184.194
27 Jul 00:00:14/2379060364@192.168.0.138/ser: sending AAA request for 18667478647711, method REGISTER:
        Calling-Station-Id                 = '18667478647711'
        User-Name                          = '18667478647711'
        Digest-User-Name                   = '18667478647711'
        Digest-Realm                       = 'demo.portaone.com'
        Digest-Nonce                       = '42e6c9cele0b2el0ca02cf9312a40309b1b95fc2'
        Digest-URI                         = 'sip:demo.portaone.com'
        Digest-Method                      = 'REGISTER'
        Digest-Algorithm                   = 'MD5'
        Digest-Response                    = 'c94b02480755281bc33cf7010b571b26'
        Service-Type                       = 'Sip-Session'
        Cisco-AVPair                       = 'call-id=2379060364@192.168.0.138'

27 Jul 00:00:14/2379060364@192.168.0.138/ser: AAA request accepted, processing response:
        h323-billing-model                 = 'h323-billing-model=0'
        Cisco-AVPair                       = 'h323-ivr-in=Tariff:Apollo SIP'
        Cisco-AVPair                       = 'h323-ivr-in=available-funds:9996007.08'
        h323-return-code                   = 'h323-return-code=0'
        h323-currency                      = 'h323-currency=USD'
        h323-preferred-lang                = 'h323-preferred-lang=en'
```

Log with call diagram:



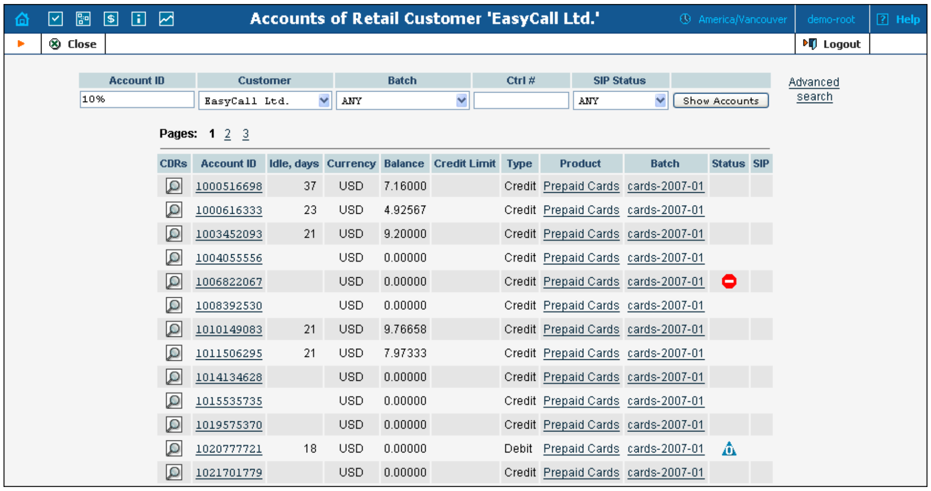
```
14:10:17   rtpproxy: pre-filling caller's address with 70.68.128.186:16456
14:10:17 |                             |<- (B? 200/I) ♪ INVITE ------@                             |
14:10:17 |<- (B? 200/I) ♪ INVITE ------@                             |                             |
14:10:17 |                             @-> (B? 200/I) 100 trying - ->|                             |
14:10:17 @-> (B? 200/I) 100 Trying --->|                             |                             |
14:10:17 @-> (Ba 200/I) 180 Ringing -->|                             |                             |
14:10:17 |                             @-> (Ba 200/I) 180 Ringing -->|                             |
14:10:17 |                             |<- (Aa 102/I) 180 Ringing ---@                             |
14:10:17 |<- (Aa 102/I) 180 Ringing ---@                             |                             |
14:10:20 @-> (Ba 200/I) ♪ 200 OK ----->|                             |                             |
14:10:20 |                             @-> (Ba 200/I) ♪ 200 OK ----->|                             |
14:10:20 |                             |<- (Ba 200/A) ACK -----------@                             |
14:10:20   rtpproxy: pre-filling callee's address with 70.68.128.186:16458
14:10:20 |                             |<- (Aa 102/I) ♪ 200 OK ------@                             |
14:10:20 |<- (Aa 102/I) ♪ 200 OK ------@                             |                             |
14:10:20 |<- (Ba 200/A) ACK -----------@                             |                             |
14:10:20 @-> (Aa 102/A) ACK ---------->|                             |                             |
14:10:20 |                             @-> (Aa 102/A) ACK ---------->|                             |
14:10:22 @-> (Aa 103/B) BYE ---------->|                             |                             |
14:10:22 |                             @-> (Aa 103/B) BYE ---------->|                             |
14:10:22 |                             |<- (Aa 103/B) 200 OK --------@                             |
14:10:22 |<- (Aa 103/B) 200 OK --------@                             |                             |
14:10:22 |                             |                             @-> Accounting -------------->|
14:10:22   rtpproxy: RTP stats: 78 in from callee, 79 in from caller
14:10:22   rtpproxy: session on ports 35132/35134 is cleaned up
14:10:22 |                             |<- (Ba 201/B) BYE -----------@                             |
14:10:22 |<- (Ba 201/B) BYE -----------@                             |                             |
14:10:22 |                             |                             @-> Accounting -------------->|
14:10:22 |<- (Ba 201/B) BYE -----------@                             |                             |
```

```
17 May 14:10:17/GLOBAL/ser: RECEIVED message from 70.68.128.186:34714:
         INVITE sip:400@216.231.44.34 SIP/2.0
         Via: SIP/2.0/UDP 192.168.0.53:5061;branch=z9hG4bK-4a8856d4
         From: autoprov 401 <sip:12060000401@216.231.44.34>;tag=13d16d295842930co1
         To: <sip:400@216.231.44.34>
         Call-ID: 21e0c92d-42c946d8@192.168.0.53
         CSeq: 101 INVITE
         Max-Forwards: 70
         Contact: autoprov 401 <sip:12060000401@192.168.0.53:5061>
         Expires: 240
         User-Agent: Linksys/PAP2-3.1.7(LSd)
         Content-Length: 428
         Allow: ACK, BYE, CANCEL, INFO, INVITE, NOTIFY, OPTIONS, REFER
```

Field	Description
SIP Environment	The PortaSIP node (virtual SIP instance) whose log files will be processed.
Call-ID	The SIP Call-ID (typical format is XXXXX@some.domain or XXXX@IP).
Another Call-ID	The Call-ID used to trace callback calls when one logical call consists of several independent SIP calls.
Search log file for	The day when the call was made.
Include log file for the previous day in the search	This option extends the search by adding the previous day.
Output format	Raw text log, or with diagram.
Show call attempts for last …	Displays all call attempts on this node, so that you can find the call-id for a call and use it to obtain log information.

Account Info

The Account Info page is provided for Help Desk staff responsible for answering questions from account holders. The interface requires the account holder to give the Help Desk an account ID or a batch and control number. The Help Desk operator can also browse xDRs for this account by selecting the Browse xDRs 🔍 icon.

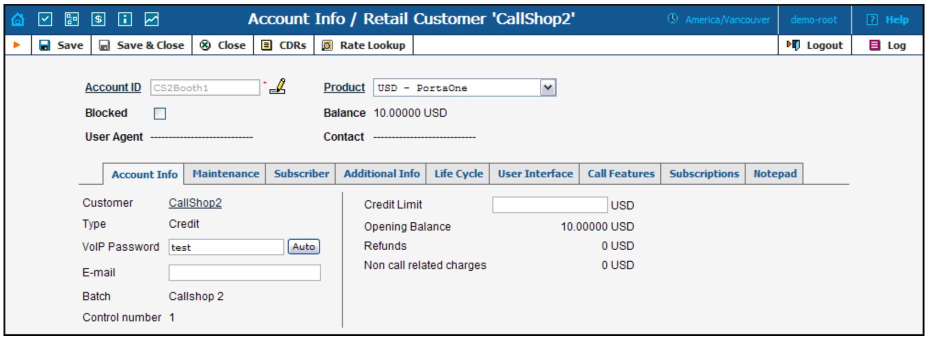

Accounts of Retail Customer 'EasyCall Ltd.'
America/Vancouver
demo-root
Help
Close
Logout
Show Accounts
Advanced search

Account ID	Customer	Batch	Ctrl #	SIP Status
10%	EasyCall Ltd.	ANY		ANY

Pages: 1 2 3

CDRs	Account ID	Idle, days	Currency	Balance	Credit Limit	Type	Product	Batch	Status	SIP
	1000516698	37	USD	7.16000		Credit	Prepaid Cards	cards-2007-01		
	1000616333	23	USD	4.92567		Credit	Prepaid Cards	cards-2007-01		
	1003452093	21	USD	9.20000		Credit	Prepaid Cards	cards-2007-01		
	1004055556		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		
	1006822067		USD	0.00000		Credit	Prepaid Cards	cards-2007-01	⛔	
	1008392530		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		
	1010149083	21	USD	9.76658		Credit	Prepaid Cards	cards-2007-01		
	1011506295	21	USD	7.97333		Credit	Prepaid Cards	cards-2007-01		
	1014134628		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		
	1015535735		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		
	1019575370		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		
	1020777721	18	USD	0.00000		Debit	Prepaid Cards	cards-2007-01	⚠	
	1021701779		USD	0.00000		Credit	Prepaid Cards	cards-2007-01		

Once specified, clicking on **Account ID** will take the user to the Account Info for that account.


Account Info / Retail Customer 'CallShop2'
America/Vancouver
demo-root
Help
Save
Save & Close
Close
CDRs
Rate Lookup
Logout
Log
Account Info
Maintenance
Subscriber
Additional Info
Life Cycle
User Interface
Call Features
Subscriptions
Notepad
Auto

Account ID CS2Booth1

Blocked ☐

User Agent ------------------------

Product USD - PortaOne

Balance 10.00000 USD

Contact ------------------------

Customer CallShop2

Type Credit

VoIP Password test

E-mail

Batch Callshop 2

Control number 1

Credit Limit USD

Opening Balance 10.00000 USD

Refunds 0 USD

Non call related charges 0 USD

The majority of account details on the Account Info page are read-only. This interface is similar to the one accessible via the customer's **Accounts**. Help Desk staff has the ability to modify only Web Password, VoIP Password, Account Balance, Time Zone, Redirect Number, Blocked Status, and Preferred Language. When making such changes, Help Desk staff should also provide a comment detailing the reason for these changes (for example, "user unable to call due to network outage, credited $5"). Changes may be confirmed by clicking **Save** or **Save&Close**.

6. Statistics

Graphs

The default timeframe for all graphs is 30 hours. The dates above the graph are the boundary timeframe for the current graph. If the graph is shown in more than one color, a legend for color use will be displayed below the graph. If there are two graphs, captions will be provided on the left. The use of navigation is explained in the table below.

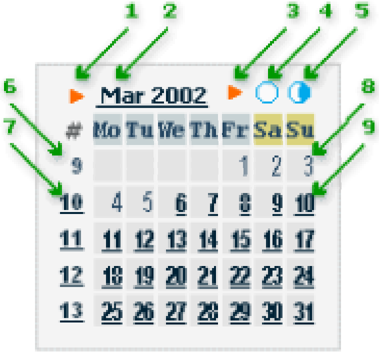
Icon	Description
⊖	**Zoom Out.** Click the icon or the top part of the graph to see a 50% longer time interval.
⊕	**Zoom In.** Click the icon or the bottom part of the graph to see a 50% shorter time interval and a more detailed graph.
⇦	**Back in time.** Click the icon or the left part of the graph to move back in time by 50% of the current timeframe.
⇨	**Forward in time.** Click the icon or the right part of the graph to move forward in time by 50% of the current timeframe.

Reports

The middle portion of the report screen is a one-year calendar.

PortaBilling keeps reports for one year, after which they are removed from the system. The current month is displayed in the bottom right-hand corner of the calendar.

Look at the following diagram of a calendar:



1. If present, this arrow notifies the user that a report for this month is available for download by clicking the month link.
2. Three-letter abbreviation for the month, followed by the year.

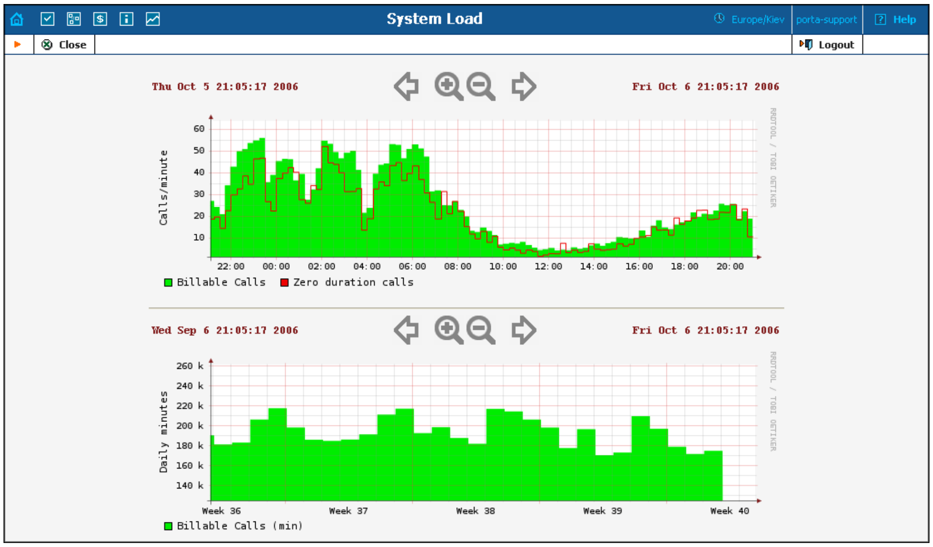
3. If present, this arrow notifies the user that two semi-monthly reports are available for download by clicking the links on the right.
4. Click this icon to download statistics for the first half of the month.
5. Click this icon to download statistics for the second half of the month.
6. The number of the week in the current year. No report was generated for this week, so there is no link.
7. Same as 6, but here a report has been generated and may be downloaded by clicking the link.
8. The day of the month. No report has been generated, so the link is inactive.
9. Days with linked reports are bolded and underscored. Click to download the report.

If a report is available, the corresponding link is bolded and underscored.

NOTE: Links are not displayed if reports have not been configured.

System Load

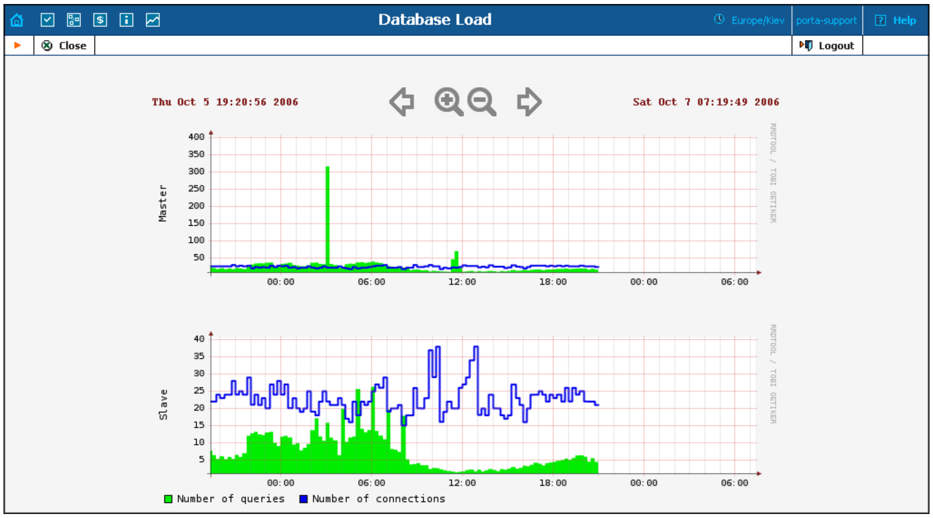
The **System Load** graph provides a general overview of the billing system status in terms of the number of call attempts per minute and the total volume of calls per day.


System Load
Europe/Kiev
porta-support
Help
Close
Logout
Thu Oct 5 21:05:17 2006
Fri Oct 6 21:05:17 2006
Calls/minute
60
50
40
30
20
10
22:00
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
🟩 Billable Calls
🟥 Zero duration calls
RRDTOOL / TOBI OETIKER
Wed Sep 6 21:05:17 2006
Fri Oct 6 21:05:17 2006
Daily minutes
260 k
240 k
220 k
200 k
180 k
160 k
140 k
Week 36
Week 37
Week 38
Week 39
Week 40
🟩 Billable Calls (min)
RRDTOOL / TOBI OETIKER

The **Calls/minute** graph at the top shows the number of calls, and is broken down into "Billable" and "Zero Duration" calls.
The **Daily minutes** graph shows the total call volume (in minutes) that passes through your system per day.

Database Load

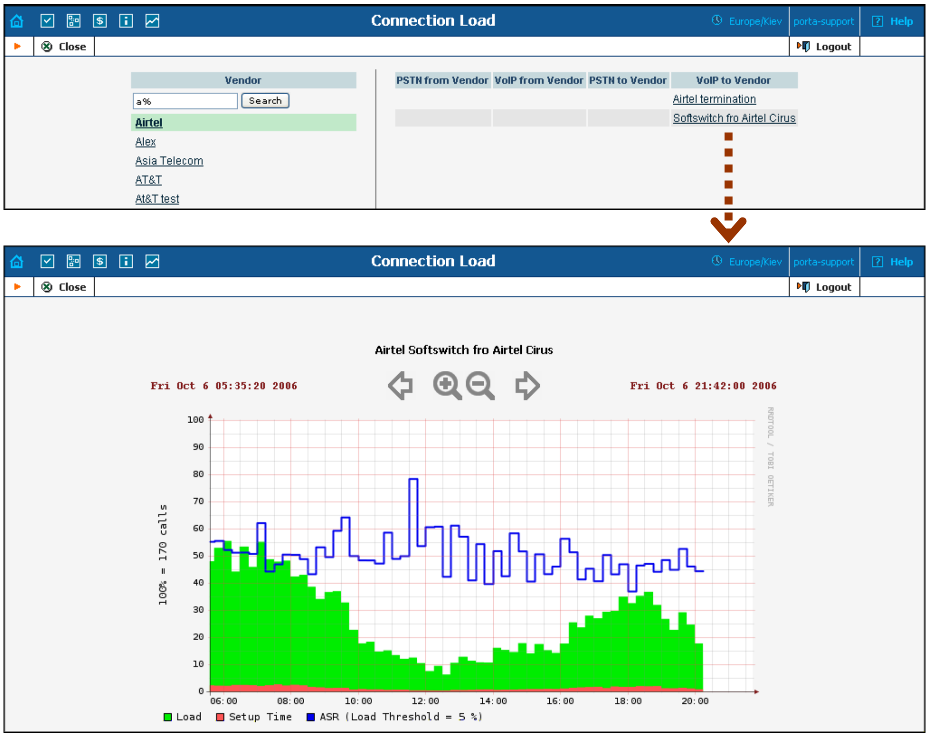
The Database Load graph shows the load (in number of queries) and the number of active threads on the master and slave databases. This information may be useful in the event that database interactions seem slow, or for other debugging scenarios.


Database Load
Europe/Kiev
porta-support
Help
Close
Logout
Thu Oct 5 19:20:56 2006
Sat Oct 7 07:19:49 2006
Master
400
350
300
250
200
150
100
50
00:00
06:00
12:00
18:00
00:00
06:00
RRDTOOL / TOBI OETIKER
Slave
40
35
30
25
20
15
10
5
00:00
06:00
12:00
18:00
00:00
06:00
RRDTOOL / TOBI OETIKER
🟩 Number of queries
🟦 Number of connections

Connections

The Connection Load screen provides the user with access to load graphs for all connections set up in the system. To view the graph, select the vendor to whom the connection being searched has been assigned from the list on the left side of the screen. Also, the search feature may be used by entering the vendor’s name in the search field and clicking the **Search** button. For a search wildcard, the symbol ‘%’ can be used.

After locating the vendor, all connections related to him will be displayed on the right side of the screen, grouped similarly as on the Connection Management screen: PSTN from Vendor, VoIP from Vendor, PSTN to Vendor, and VoIP to Vendor. Click the description under the corresponding connection type to view the Load Graph for a given connection.


Connection Load
Europe/Kiev
porta-support
Help
Close
Logout
Vendor
a%
Search
Airtel
Alex
Asia Telecom
AT&T
At&T test
PSTN from Vendor
VoIP from Vendor
PSTN to Vendor
VoIP to Vendor
Airtel termination
Softswitch fro Airtel Cirus
Connection Load
Europe/Kiev
porta-support
Help
Close
Logout
Airtel Softswitch fro Airtel Cirus
Fri Oct 6 05:35:20 2006
Fri Oct 6 21:42:00 2006
100% = 170 calls
100
90
80
70
60
50
40
30
20
10
0
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
RRDTOOL / TOBI OETIKER
🟩 Load
🟥 Setup Time
🟦 ASR (Load Threshold = 5 %)

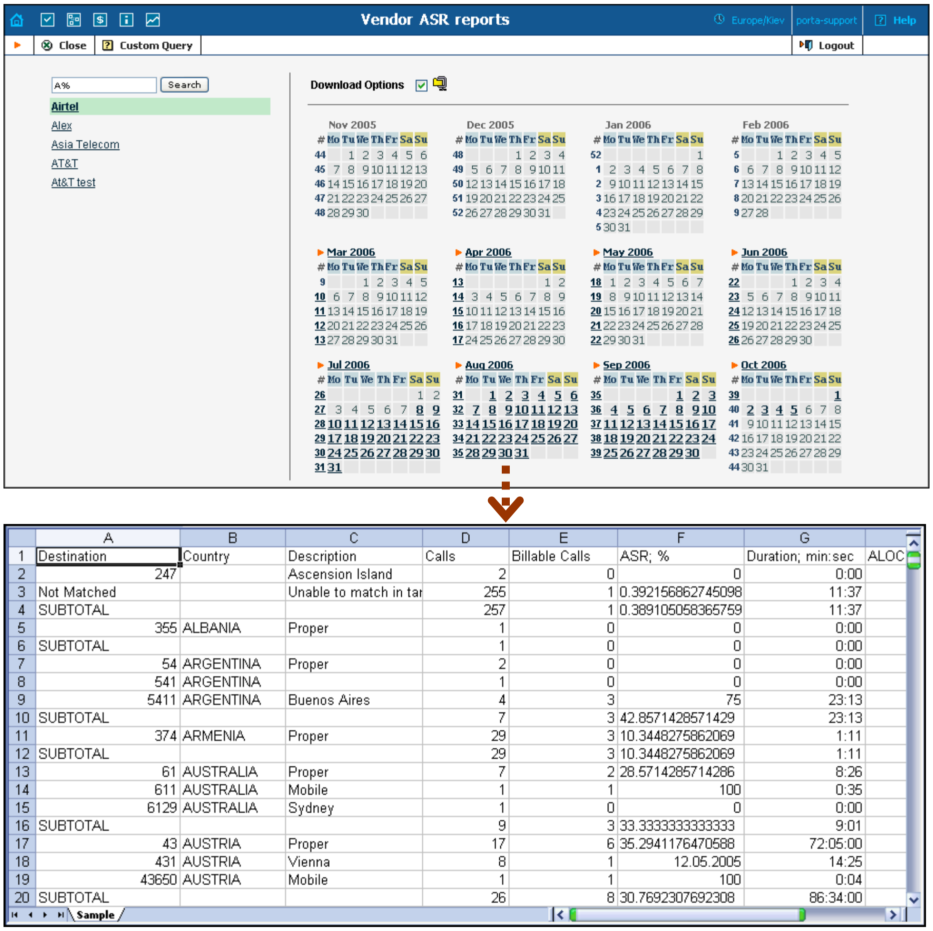
Defined in terms of connection threshold, the connection utilization graph shows the saturation of your connections, as well as the setup time and ASR.

ASR

The Vendor ASR reports screen gives the user easy access to downloads of all ASR reports that have been defined for a vendor. Reports for the desired vendor may be found by selecting the vendor from a list on the left side of the screen, or by entering the vendor's name in the search field and clicking the **Search** button. The wildcard symbol '%' may also be used for the search.

Download Options

The default report download format is CSV. Check the box next to the **ZIP** icon to download zipped CSV files.

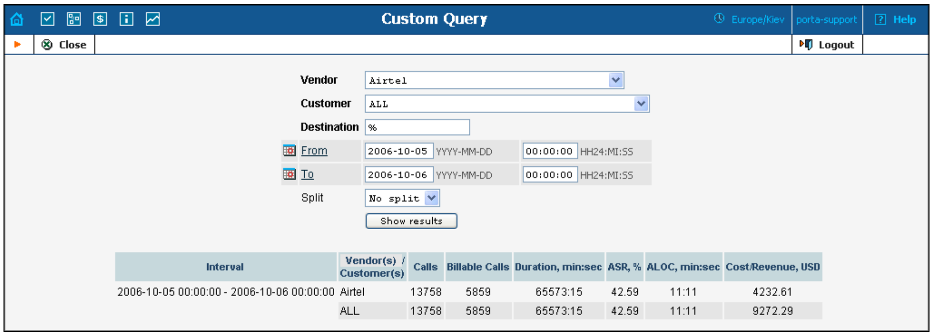

Vendor ASR reports
Europe/Kiev
porta-support
Help
Close
Custom Query
Logout
A%
Search
Airtel
Alex
Asia Telecom
AT&T
At&T test
Download Options
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
Sample

	A	B	C	D	E	F	G	
1	Destination	Country	Description	Calls	Billable Calls	ASR; %	Duration; min:sec	ALOC
2	247		Ascension Island	2	0	0	0:00	
3	Not Matched		Unable to match in tar	255	1	0.392156862745098	11:37	
4	SUBTOTAL			257	1	0.389105058365759	11:37	
5	355	ALBANIA	Proper	1	0	0	0:00	
6	SUBTOTAL			1	0	0	0:00	
7	54	ARGENTINA	Proper	2	0	0	0:00	
8	541	ARGENTINA		1	0	0	0:00	
9	5411	ARGENTINA	Buenos Aires	4	3	75	23:13	
10	SUBTOTAL			7	3	42.8571428571429	23:13	
11	374	ARMENIA	Proper	29	3	10.3448275862069	1:11	
12	SUBTOTAL			29	3	10.3448275862069	1:11	
13	61	AUSTRALIA	Proper	7	2	28.5714285714286	8:26	
14	611	AUSTRALIA	Mobile	1	1	100	0:35	
15	6129	AUSTRALIA	Sydney	1	0	0	0:00	
16	SUBTOTAL			9	3	33.3333333333333	9:01	
17	43	AUSTRIA	Proper	17	6	35.2941176470588	72:05:00	
18	431	AUSTRIA	Vienna	8	1	12.05.2005	14:25	
19	43650	AUSTRIA	Mobile	1	1	100	0:04	
20	SUBTOTAL			26	8	30.7692307692308	86:34:00	

Custom Query

The Custom Query utility, which can be accessed by clicking the **Custom Query** button, enables you to view ASR and cost/revenue information for all calls going from selected customer(s) to selected vendor(s). This query can also be filtered by destination and a precise time interval. The Split selector allows the report to be divided into hourly and daily intervals.

Select a customer or vendor, or a destination (which may be specified exactly), or use a wildcard. (For example, all calls to England may be specified as "44%" in the destination field.) A date and time range for the search must be specified. To initiate the query, click the **Show results** button.



Vendor: Airtel
Customer: ALL
Destination: %
From: 2006-10-05 YYYY-MM-DD 00:00:00 HH24:MI:SS
To: 2006-10-06 YYYY-MM-DD 00:00:00 HH24:MI:SS
Split: No split

Interval	Vendor(s) / Customer(s)	Calls	Billable Calls	Duration, min:sec	ASR, %	ALOC, min:sec	Cost/Revenue, USD
2006-10-05 00:00:00 - 2006-10-06 00:00:00	Airtel	13758	5859	65573:15	42.59	11:11	4232.61
	ALL	13758	5859	65573:15	42.59	11:11	9272.29

The results table contains two rows, one each for the customer and the vendor.

- Calls
- Billable Calls
- Duration, min:sec
- ASR (Average Success Rate)
- ALOC (Average Length of Call), min:sec
- Cost/Revenue, in the PortaBilling owner's currency

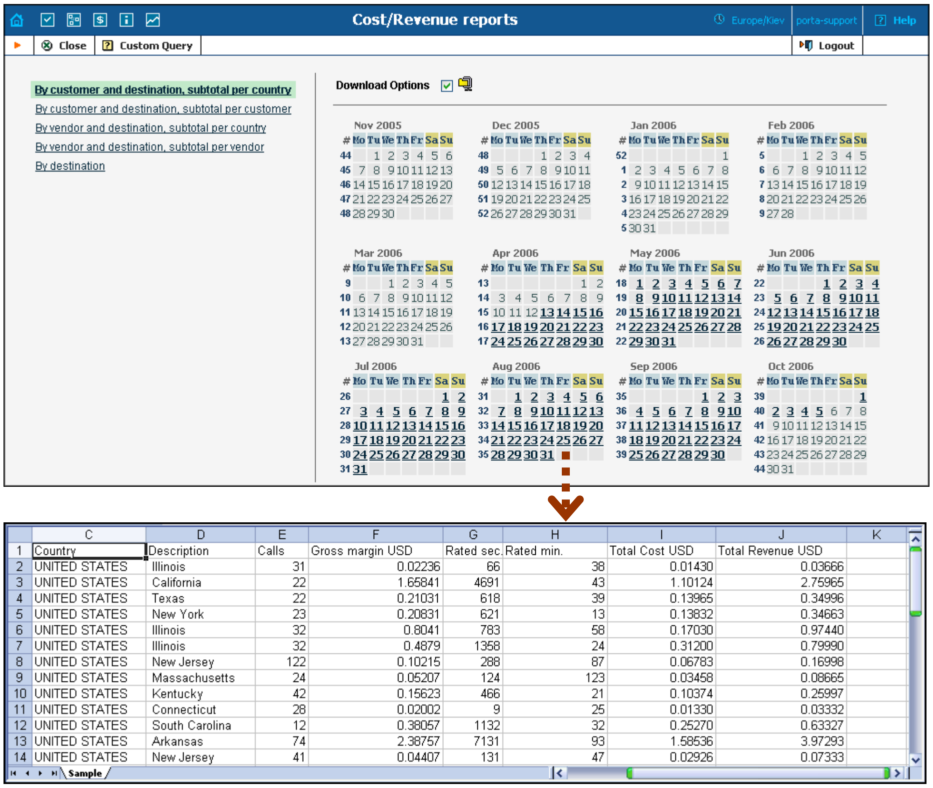
The Custom Query utility is a tool for monitoring various parameters of your current call flow. It should **not** be used to obtain billing statistics for a particular vendor (use the xDR statistics for the corresponding vendor), and should **never** be used to obtain information such as "total minutes for a particular customer". Since this report operates with the vendor's xDR, it will provide figures according to the vendor's time rounding, not the customer's. This can make a significant difference (e.g. your vendor uses 1 second rounding, while customers are billed on a per-minute basis).

Cost/Revenue

The Cost/Revenue reports screen allows users to easily download all Cost/Revenue reports that have been generated in the system. Reports are grouped by the following call types:

- By customer and destination, subtotal per country (default)
- By customer and destination, subtotal per customer
- By customer and destination, subtotal per country
- By vendor and destination, subtotal per vendor
- By destination

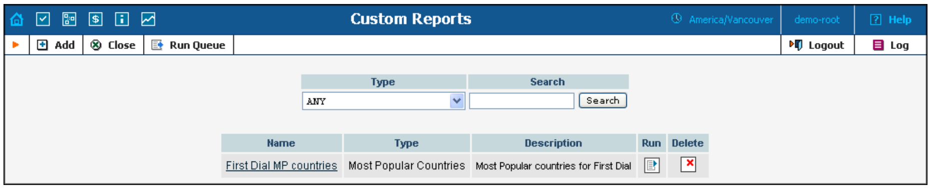
The active selection is highlighted in green.


Cost/Revenue reports
Europe/Kiev
porta-support
Help
Close
Custom Query
Logout
By customer and destination, subtotal per country
By customer and destination, subtotal per customer
By vendor and destination, subtotal per country
By vendor and destination, subtotal per vendor
By destination
Download Options
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
Sample

	C	D	E	F	G	H	I	J	K
1	Country	Description	Calls	Gross margin USD	Rated sec.	Rated min.	Total Cost USD	Total Revenue USD	
2	UNITED STATES	Illinois	31	0.02236	66	38	0.01430	0.03666	
3	UNITED STATES	California	22	1.65841	4691	43	1.10124	2.75965	
4	UNITED STATES	Texas	22	0.21031	618	39	0.13965	0.34996	
5	UNITED STATES	New York	23	0.20831	621	13	0.13832	0.34663	
6	UNITED STATES	Illinois	32	0.8041	783	58	0.17030	0.97440	
7	UNITED STATES	Illinois	32	0.4879	1358	24	0.31200	0.79990	
8	UNITED STATES	New Jersey	122	0.10215	288	87	0.06783	0.16998	
9	UNITED STATES	Massachusetts	24	0.05207	124	123	0.03458	0.08665	
10	UNITED STATES	Kentucky	42	0.15623	466	21	0.10374	0.25997	
11	UNITED STATES	Connecticut	28	0.02002	9	25	0.01330	0.03332	
12	UNITED STATES	South Carolina	12	0.38057	1132	32	0.25270	0.63327	
13	UNITED STATES	Arkansas	74	2.38757	7131	93	1.58536	3.97293	
14	UNITED STATES	New Jersey	41	0.04407	131	47	0.02926	0.07333	

Custom Reports

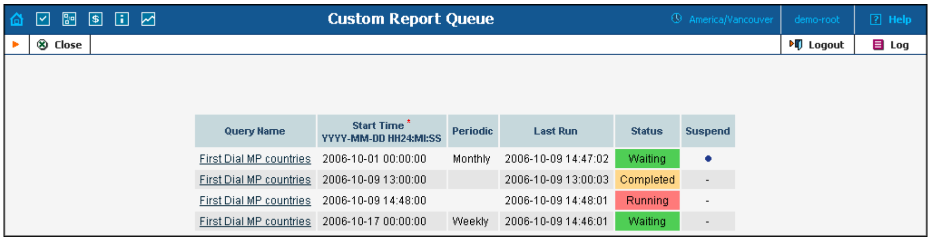
The Custom Reports section allows you to manage and execute custom report queries.


Custom Reports
America/Vancouver
demo-root
Help
Add
Close
Run Queue
Logout
Log
Search

Type	Search
ANY	

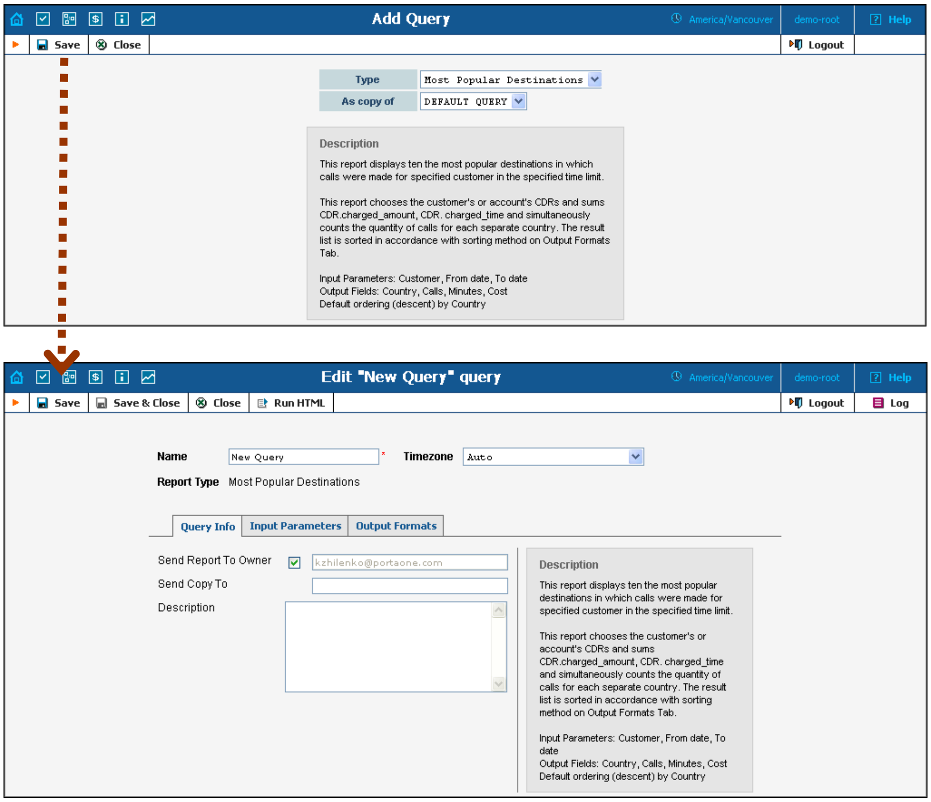
Name	Type	Description	Run	Delete
First Dial MP countries	Most Popular Countries	Most Popular countries for First Dial		☒

On the initial Custom Reports screen, you can view already existing reports. To execute one of them and see the result immediately, click the **Run** icon for a particular report. Click the **Run Queue** button in the toolbar to see information about scheduled report execution.


Custom Report Queue
America/Vancouver
demo-root
Help
Close
Logout
Log

Query Name	Start Time * YYYY-MM-DD HH24:MI:SS	Periodic	Last Run	Status	Suspend
First Dial MP countries	2006-10-01 00:00:00	Monthly	2006-10-09 14:47:02	Waiting	●
First Dial MP countries	2006-10-09 13:00:00		2006-10-09 13:00:03	Completed	-
First Dial MP countries	2006-10-09 14:48:00		2006-10-09 14:48:01	Running	-
First Dial MP countries	2006-10-17 00:00:00	Weekly	2006-10-09 14:46:01	Waiting	-

Click **Add** to create a new report by choosing the type of report (one of the pre-defined types) and whether this report should be created as a clone of some existing report (inheriting all parameters defined in that report), or just as a blank copy. Press **Save** to proceed in defining the report.



Type: Most Popular Destinations
As copy of: DEFAULT QUERY

Description

This report displays ten the most popular destinations in which calls were made for specified customer in the specified time limit.

This report chooses the customer's or account's CDRs and sums CDR.charged_amount, CDR. charged_time and simultaneously counts the quantity of calls for each separate country. The result list is sorted in accordance with sorting method on Output Formats Tab.

Input Parameters: Customer, From date, To date
Output Fields: Country, Calls, Minutes, Cost
Default ordering (descent) by Country

Name: New Query *
Timezone: Auto
Report Type: Most Popular Destinations

Send Report To Owner ☑ kzhilenko@portaone.com
Send Copy To
Description

Description

This report displays ten the most popular destinations in which calls were made for specified customer in the specified time limit.

This report chooses the customer's or account's CDRs and sums CDR.charged_amount, CDR. charged_time and simultaneously counts the quantity of calls for each separate country. The result list is sorted in accordance with sorting method on Output Formats Tab.

Input Parameters: Customer, From date, To date
Output Fields: Country, Calls, Minutes, Cost
Default ordering (descent) by Country

On the Edit query page, you can alter various parameters of this query. Click the **Run HTML** button in the toolbar to run the query and immediately see the result in your web browser.

Query Info Tab

Field	Description
Send Report To Owner	If this check box is ticked, after every query execution the user who executes the report will receive a copy of the report result by email. (Make sure you have defined your email address in the user settings.)
Send Copy To	Send a copy of the report result to another email address.
Description	General description of this report.

Input Parameters Tab

The contents of this tab are based on a particular report, and allow you to manage report parameters, e.g. for "Most popular destinations" you are able to specify the date range and customers.
For input parameters which contain date/time values, there are two methods of entering values:

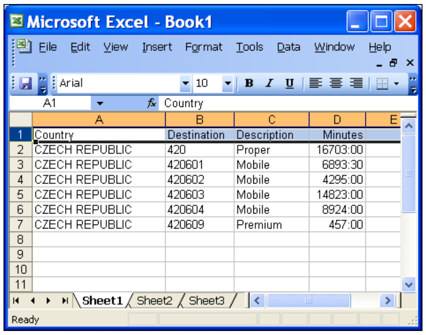
- You can type in a specific value, e.g. "01-Jan-2007"; this value will always stay the same for any report execution.
- You can specify a moment in time as an offset from the scheduled report execution date. For instance, you can set up the "Customer's most popular destinations" report to run every night at 5 am, and specify that it should cover an interval from 21 hours to 10 hours **prior** to the report time. As a result, you will always receive a report that includes calls made by the customer during business hours on the previous day. Parameters may also be populated automatically with a date **after** the actual report time: for instance, every Monday you can run a report to obtain a list of invoices that will become overdue during the next seven days.

Output Formats Tab

This tab includes two separate areas: Output Format, where you can define how the values of columns should be presented in the report, and Data Sorting, where you define how the report data should be sorted.

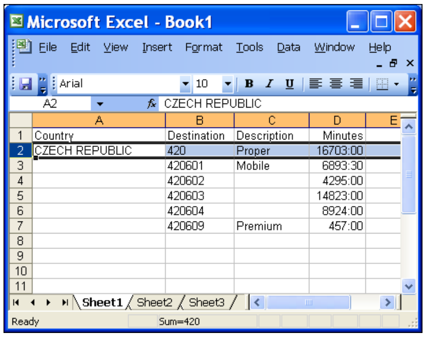
Column	Description
Column	Name of the report column.
Visible	Whether this column should be included in the report. If you uncheck this option, the given column will simply be skipped in the report result.
Format	Formatting of the column data (e.g. whether the total number of minutes should be displayed as 380 or 380:00).
Post Processing Rule	This field functions like the post-processing rules in templates (for more details, see the **PortaBilling Templates Guide**). It allows you to modify the actual value extracted from the database before it is shown in the report. For instance, if the value in the database gives the total number of seconds, you can divide it by 60 to display the value in minutes to the user.
Suppress Dup	If activated, duplicate column values in adjacent rows will not be displayed – see the example below.

The Suppress Duplicates option allows you to make your reports more readable by removing excess information. Compare the two datasheets below, in which the same data is shown, but where the right one has Suppress Duplicates enabled for certain columns.


Microsoft Excel - Book1
File Edit View Insert Format Tools Data Window Help
Arial 10
A1
Sheet1 Sheet2 Sheet3
Ready

Country

	A	B	C	D	E
1	Country	Destination	Description	Minutes	
2	CZECH REPUBLIC	420	Proper	16703:00	
3	CZECH REPUBLIC	420601	Mobile	6893:30	
4	CZECH REPUBLIC	420602	Mobile	4295:00	
5	CZECH REPUBLIC	420603	Mobile	14823:00	
6	CZECH REPUBLIC	420604	Mobile	8924:00	
7	CZECH REPUBLIC	420609	Premium	457:00	
8					
9					
10					
11					


Microsoft Excel - Book1
File Edit View Insert Format Tools Data Window Help
Arial 10
A2
Sheet1 Sheet2 Sheet3
Ready
Sum=420

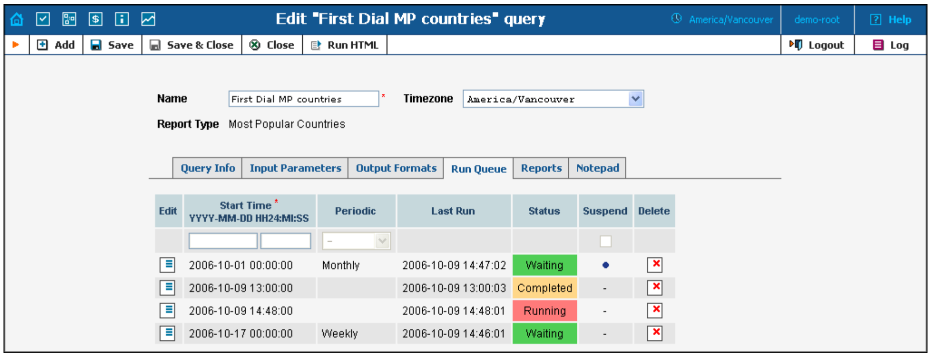
CZECH REPUBLIC

	A	B	C	D	E
1	Country	Destination	Description	Minutes	
2	CZECH REPUBLIC	420	Proper	16703:00	
3		420601	Mobile	6893:30	
4		420602		4295:00	
5		420603		14823:00	
6		420604		8924:00	
7		420609	Premium	457:00	
8					
9					
10					
11					

Column	Description
Column	Name of the report column.
Sort	Specifies the sorting mode for this column: • - Data is sorted in ascending order (i.e. **Andrew** will be at the top of the list, and **Zack** at the bottom). • - Data is sorted in descending order (i.e. **Zack** will be at the top of the list, and **Andrew** at the bottom). • — - This column is not used for data sorting at all.
Up/Dn	If there are multiple columns used in sorting, their order is very important. Here you can arrange the sequence of the sort columns. For instance, if you want to sort data first by country name and then by the number of minutes, use the ▲ and ▼ arrows to move the **Country** column above the **Minutes** column.

Run Queue Tab

This tab allows you to schedule automatic report execution (single time or periodic) in the future, and to see when a report was last generated. Click the ⊞ **Add** button in the toolbar to add a new entry.



Name First Dial MP countries * **Timezone** America/Vancouver

Report Type Most Popular Countries

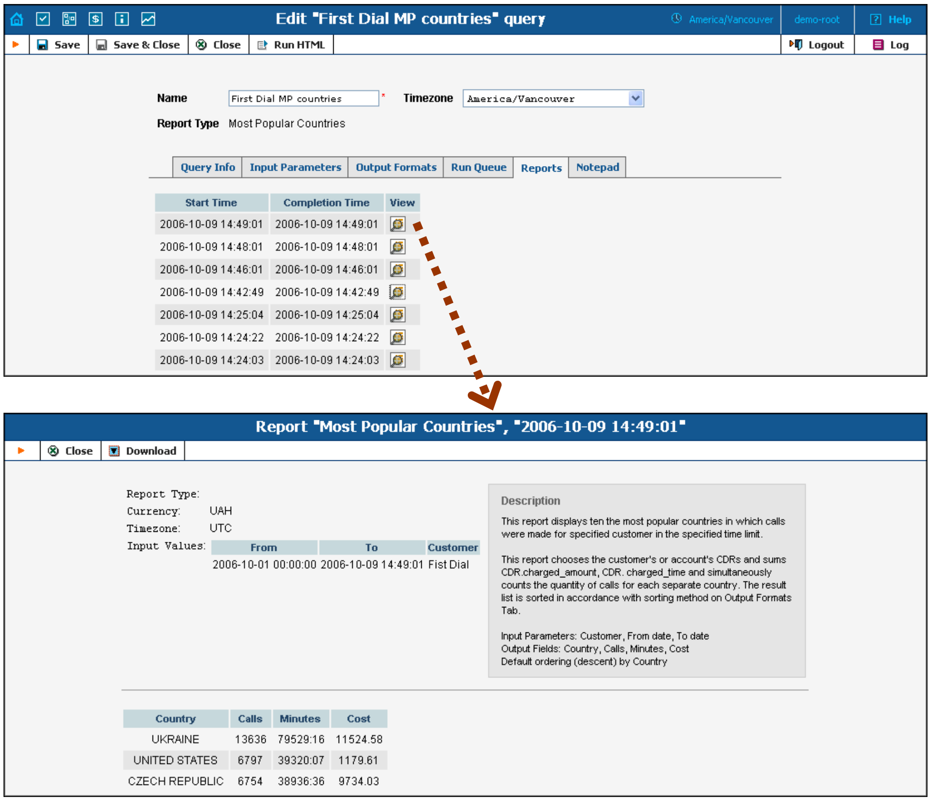
Edit	Start Time * YYYY-MM-DD HH24:MI:SS	Periodic	Last Run	Status	Suspend	Delete
		-			☐	
☰	2006-10-01 00:00:00	Monthly	2006-10-09 14:47:02	Waiting	●	☒
☰	2006-10-09 13:00:00		2006-10-09 13:00:03	Completed	-	☒
☰	2006-10-09 14:48:00		2006-10-09 14:48:01	Running	-	☒
☰	2006-10-17 00:00:00	Weekly	2006-10-09 14:46:01	Waiting	-	☒

Column	Description
Start Time	Date and time when the report should be produced.
Periodic	Specifies whether the report should only be produced once, or generated every day, week or month.
Last Run	The date when the report was last executed (if applicable).
Status	Current status of the report: • Waiting – Report execution has not started yet, and is scheduled for the future. • Completed – The report was to be executed only once, and this has already been done. • Running – The report is being currently produced.
Suspend	Allows you to temporarily disable report execution (but not delete the entry from the report schedule). This may be convenient if you are leaving for vacation and would like to avoid having reports piling up in your inbox during your absence.

NOTE: Start Time specifies only the “preferred” start time for the report. Report execution will not start earlier than the specified time, but it may start later if there are some other conflicting tasks at the specified time. For instance, if two reports are scheduled to be executed at 06:00, only one of them will start at that time, while the other will start only after the first one has finished.

Reports Tab

This tab allows you to browse results for the ten previous report executions. Thus, if you did not save the original result, you do not have to run the reports over again. Click the icon to see the corresponding file.


Edit "First Dial MP countries" query
America/Vancouver
demo-root
Help
Save
Save & Close
Close
Run HTML
Logout
Log
Query Info
Input Parameters
Output Formats
Run Queue
Reports
Notepad
Report "Most Popular Countries", "2006-10-09 14:49:01"
Close
Download

Name First Dial MP countries * **Timezone** America/Vancouver

Report Type Most Popular Countries

Start Time	Completion Time	View
2006-10-09 14:49:01	2006-10-09 14:49:01	
2006-10-09 14:48:01	2006-10-09 14:48:01	
2006-10-09 14:46:01	2006-10-09 14:46:01	
2006-10-09 14:42:49	2006-10-09 14:42:49	
2006-10-09 14:25:04	2006-10-09 14:25:04	
2006-10-09 14:24:22	2006-10-09 14:24:22	
2006-10-09 14:24:03	2006-10-09 14:24:03	

Report Type:
Currency: UAH
Timezone: UTC
Input Values:

From	To	Customer
2006-10-01 00:00:00	2006-10-09 14:49:01	Fist Dial

Description

This report displays ten the most popular countries in which calls were made for specified customer in the specified time limit.

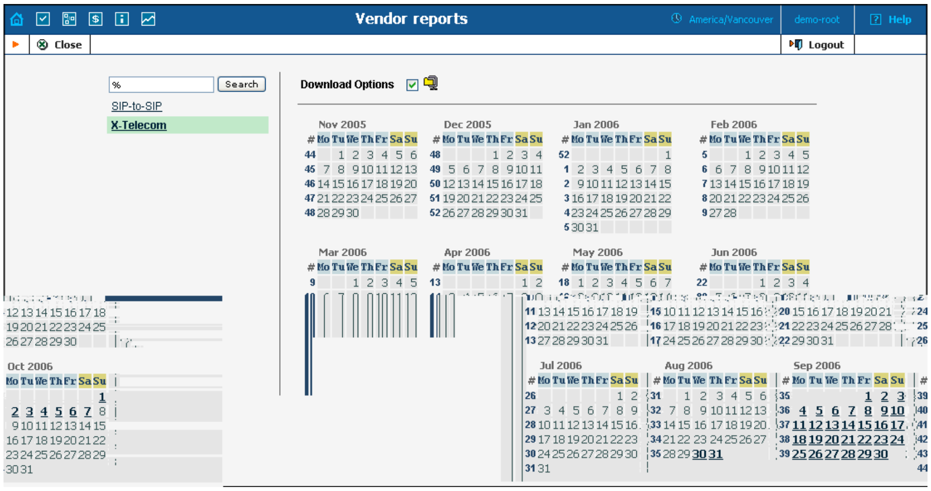
This report chooses the customer's or account's CDRs and sums CDR.charged_amount, CDR. charged_time and simultaneously counts the quantity of calls for each separate country. The result list is sorted in accordance with sorting method on Output Formats Tab.

Input Parameters: Customer, From date, To date
Output Fields: Country, Calls, Minutes, Cost
Default ordering (descent) by Country

Country	Calls	Minutes	Cost
UKRAINE	13636	79529:16	11524.58
UNITED STATES	6797	39320:07	1179.61
CZECH REPUBLIC	6754	38936:36	9734.03

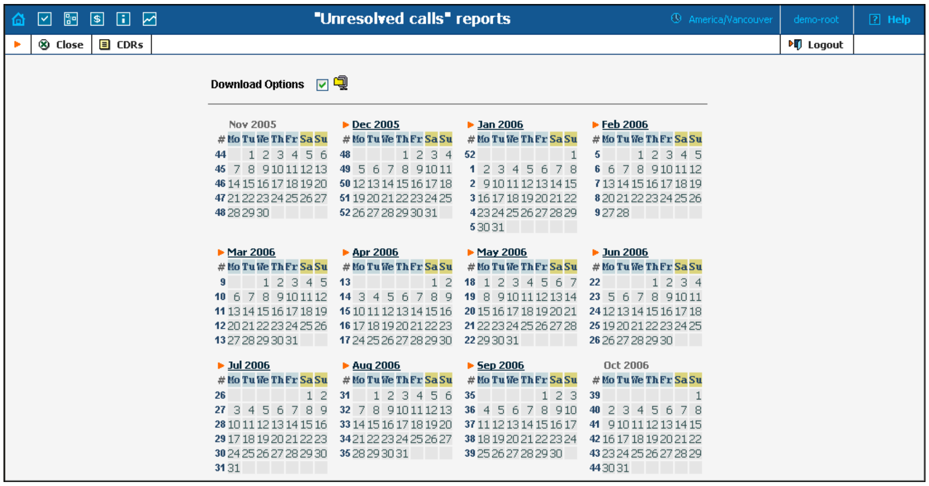
Vendor xDR Reports

The Vendor reports screen allows users to easily download all reports that have been defined for a vendor. Reports for the desired vendor may be found by selecting the vendor from the list on the left side of the screen, or by entering the vendor's name in the search field and clicking the **Search** button. The wildcard symbol '%' may also be used.


Vendor reports
America/Vancouver
demo-root
Help
Close
Logout
%
Search
SIP-to-SIP
X-Telecom
Download Options
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006

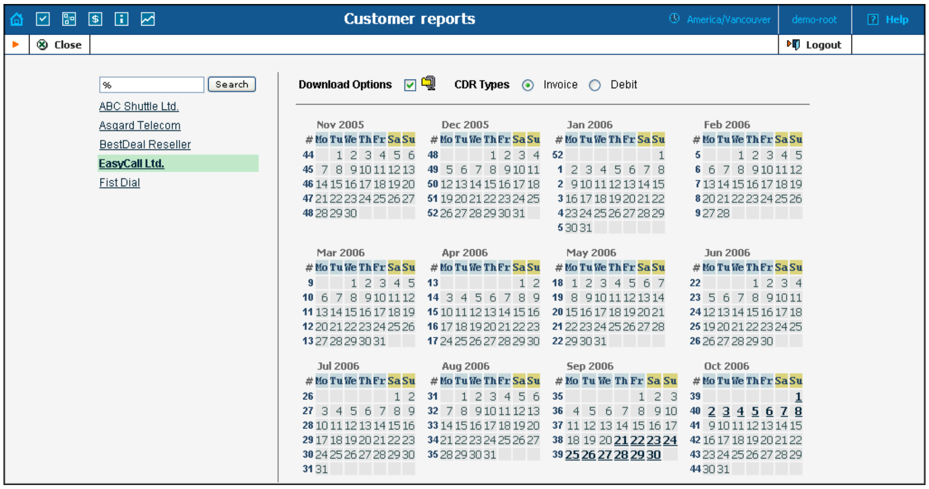
Unresolved xDR Reports

The "Unresolved calls" reports screen is accessible from the Vendor xDR. It allows users to easily download all available reports for calls which were not identified as crossing any connection to a vendor. The report periodicity can be set up on the **Company Info** screen -> Report Info Tab -> Reconciliation Period.


"Unresolved calls" reports
America/Vancouver
demo-root
Help
Close
CDRs
Logout
Download Options
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
# Mo Tu We Th Fr Sa Su

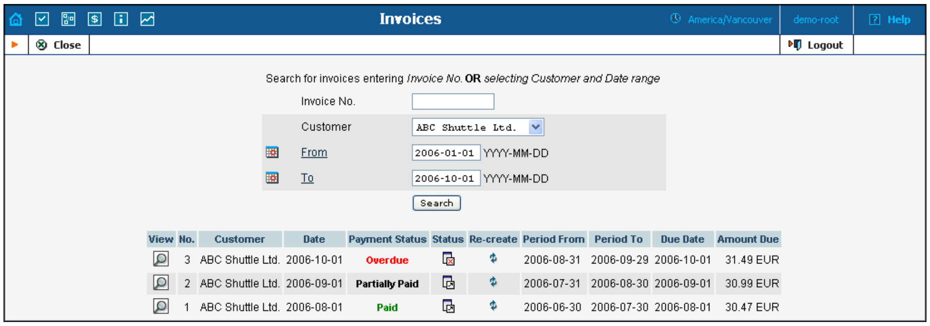
Customer xDR Reports

The Customer reports screen allows users to easily download all reports that have been defined for a customer. Reports for the desired customer may be found by selecting from the list of existing customers on the left side of the screen, or by entering the customer's name in the search field and clicking the **Search** button. The wildcard symbol '%' may also be used.


Customer reports
America/Vancouver
demo-root
Help
Close
Logout
%
Search
ABC Shuttle Ltd.
Asgard Telecom
BestDeal Reseller
EasyCall Ltd.
Fist Dial
Download Options
CDR Types
● Invoice
○ Debit
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
# Mo Tu We Th Fr Sa Su

Invoices

The Invoices screen allows the administrator to view all invoices generated by the system in the current environment. The desired invoice can be found by its number. Groups of invoices can be searched by selecting a customer and a date range.



Search for invoices entering *Invoice No.* **OR** *selecting Customer and Date range*

Invoice No.
Customer: ABC Shuttle Ltd.
From: 2006-01-01 YYYY-MM-DD
To: 2006-10-01 YYYY-MM-DD

View	No.	Customer	Date	Payment Status	Status	Re-create	Period From	Period To	Due Date	Amount Due
	3	ABC Shuttle Ltd.	2006-10-01	Overdue			2006-08-31	2006-09-29	2006-10-01	31.49 EUR
	2	ABC Shuttle Ltd.	2006-09-01	Partially Paid			2006-07-31	2006-08-30	2006-09-01	30.99 EUR
	1	ABC Shuttle Ltd.	2006-08-01	Paid			2006-06-30	2006-07-30	2006-08-01	30.47 EUR

Select the **Preview** icon in the result list to view or print the selected invoice. The **Closed** icon appears when an invoice has been delivered to the customer and cannot be changed. An invoice is considered delivered when the customer receives an e-mail with the invoice attached, or clicks the View icon in the Invoice section of the Customer Self-Provisioning interface. If the invoice is not locked, it will be automatically updated if the balance changes (re-costing of calls, for example); otherwise, a new invoice with a re-costing adjustment will be generated. You can change the status of an invoice manually by clicking the status icon.

The Re-create icon allows you to recreate an invoice. By clicking this icon you can schedule invoice recreation. This will not affect any changes except the invoice date, due date, layout attributes, customer and/or company info, and PDF file renewal. Invoice recreation is useful when you want to renew an invoice date, or have made some changes to a particular invoice template, or if certain customer or company attributes have been changed.