

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 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).

The screenshot shows the 'Tariff Management' interface. At the top, there are navigation icons and a search bar. Below the search bar, there are three dropdown menus for 'Applied To', 'Service', and 'Managed By', all set to 'ANY'. A 'Search' button is to the right. Below this is a table with columns: Rates, Upload, Name, Currency, Applied To, Service, Managed By, Routing, Description, and Delete. The table contains four rows of data:

Rates	Upload	Name	Currency	Applied To	Service	Managed By	Routing	Description	Delete
		DID supplier costs	USD	Vendor	Voice Calls		No		
		Internet Access	USD	Vendor	Broadband		No		
		Prepaid cards	USD	Customer	Voice Calls	Administrator Only			
		SIP Phone Subscribers	USD	Customer	Voice Calls	Administrator Only			

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 a 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. Click the **Upload** icon to upload rates into 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 rating entry), 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.

The screenshot shows the 'Add Tariff' interface. At the top, there are navigation icons and a search bar. Below the search bar, there are three buttons: 'Save', 'Save & Close', and 'Close'. A 'Logout' button is on the right. The main form has the following fields:

- Name:** EasyCall
- Currency:** USD - US Dollar
- Applied To:** Customer
- Service:** Voice Calls
- Managed By:** Administrator only

Below these fields is a section titled 'General Info' with the following fields:

- Default Off-Peak Period:** Weekend
- Destination Group Set:** EasyCall
- Free Seconds:** 0
- Post Call Surcharge:** 0.00000 %
- Login Fee:** 0.00000
- Connect Fee:** 0.00000
- Round Charged Amount:** XXXXX.XXXXX
- Default Formula:** [Empty]
- Update Usage Time:** Always
- Short Description:** EasyCall tariff
- Description:** What we charge customers with the EasyCall product for outgoing calls.

Field	Description
Name	The logical name for the tariff.
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	Select the service for which this tariff will be used (by default the Voice Calls service 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.
Default Off-Peak Period	Allows to select one of the previously defined off-peak periods. If you do not differentiate between peak and off-peak rates, just choose Not defined .
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 of XXXX00. 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 off. For example, XXXXX.XX00 means that the amount will be rounded up two decimal places, so that 1.2345 becomes 1.24. Note that rounding off 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.
Update Usage Time	This determines when the First Usage and the Last Usage fields get updated. – If you select Only by billable records the fields will be updated by generating a successful toll call / event. – If you select Always – the fields will be updated by the successful usage of any toll-free services.
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 ABC-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](#).

Web Upload & Download

Choose appropriate templates for web upload / download of tariffs. Read more about this in the [Templates](#) and [Managing rates offline](#) sections.

Email Upload

The screenshot shows the 'Edit Tariff' interface for a tariff named 'EasyCall'. The currency is set to USD and it is applied to 'Customer' for 'Voice Calls' service. Below the form are tabs for 'General Info', 'Web Upload & Download', 'Email Upload', and 'Notepad'. The 'Email Upload' tab is active, showing a table with columns: Edit, Type, From, Key, Template, Disabled, and Delete. One row is visible with the following values: an edit icon, 'a', 'csv-tariff@mwdomain.com', '5dg4hj2tsf6nw4usb', '(CSV)', a disabled checkbox, and a delete icon.

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: You need to add an email alias (to which you will send tariffs for upload) to the **EmailUploadAlias** field on the Configuration Server web interface. For example the PortaBilling Web Server name is web.yourcompany.com and you added the "tariffupload" alias, you will send emails with tariffs to tariffupload@web.yourcompany.com for upload. Also make sure that your mail server redirects emails sent to the above address to the PortaBilling Web Server and that port 25 is not blocked by a firewall.

Off-peak periods

Peak and off-peak prices

It is possible to have two different sets of prices, one for peak and one for off-peak time. In fact, you can have two separate off-peak periods (e. nighttime and weekends), meaning there are three separate sets of prices. A call is always billed using one particular rate; this also applies to calls starting in the off-peak period and ending in the peak period, or vice versa, i.e. there is no proration.

Off-peak periods are defined using the powerful yet flexible `Time::Period` module. The Off-Peak Period Wizard is also available to help you create a period definition easily.

You can create a master list of various off-peak periods (e.g. one from 9pm to 7am including weekends and another from 8pm to 8am daily) and then use these definitions for specific tariffs or rates inside the tariff.

Off-peak period definition wizard

To manage the available off-peak periods, select **Off-Peak Periods** on the **Tariff Management** screen.

The screenshot shows the 'Tariff Management' interface. At the top, there are tabs for 'Add', 'Close', 'Off-Peak Periods', 'xDR Re-rating', and 'LCR Rates'. Below the tabs is a search area with dropdown menus for 'Applied To' (ANY), 'Service' (ANY), and 'Managed By' (ANY), along with a search button. Below the search area is a table with columns: Rates, Name, Currency, Applied To, Service, Managed By, Routing, Description, and Delete. The table contains four rows of data:

Rates	Name	Currency	Applied To	Service	Managed By	Routing	Description	Delete
	Did supplier costs	USD	Vendor	Voice Calls		No		
	Internet Access	USD	Vendor	Broadband		No		
	Prepaid cards	USD	Customer	Voice Calls	Administrator only			
	SIP Phone Subscribers	USD	Customer	Voice Calls	Administrator only			

Off-Peak Periods				
Name	Description	Managed By	Test Period	Delete
Night	OFF PEAK 1: From 01:00 until 02:00 any day of any month OTHERWISE PEAK	Administrator only	TEST	
Off-peak time	PERIOD: From 05:00 until 15:00 any day of any month	Administrator only	TEST	

Off-Peak Period Definition	
Name	<input type="text" value="Weekend"/>
Managed By	<input type="text" value="Administrator only"/>
Off-peak rate is used if	<input type="radio"/> Session starts during the off-peak period <input type="radio"/> Session finishes during the off-peak period <input checked="" type="radio"/> Session starts and finishes during the off-peak period
	<div style="border: 1px solid gray; padding: 5px;"> OFF PEAK 1: Weekend of any month OTHERWISE PEAK </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 5px;"> <pre>startstop:wd(sa su)</pre> </div>
<input type="button" value="Cancel"/> <input type="button" value="Delete"/> <input type="button" value="Skip"/> <input type="button" value="Next >"/>	

The Off-Peak Period wizard provides users with a flexible tool for defining a new off-peak period. On a sequence of screens, the user may select 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 *Janua* 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:

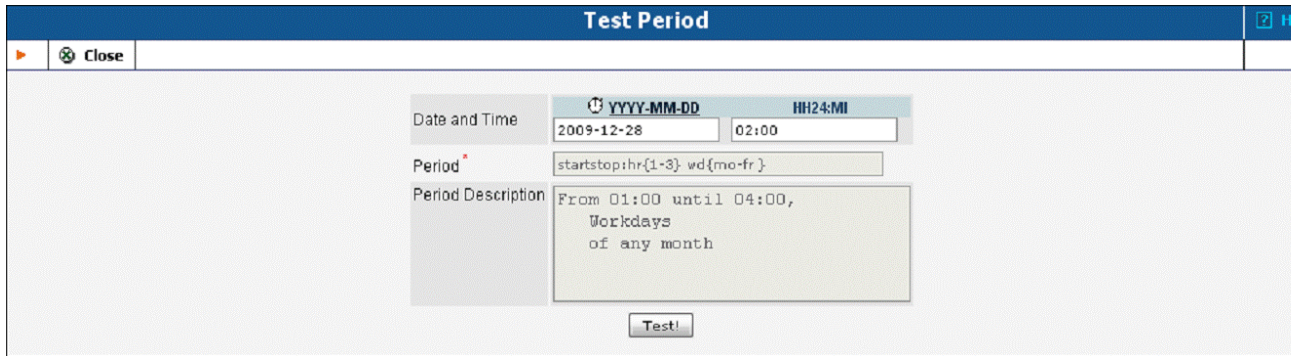
From 6:00pm until 6:00am

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 on the off-peak periods page, or use the **Test Period** button on the last page of the off-peak period wizard.



Test Period	
Close	
Date and Time	2009-12-28 02:00
Period	startstop:hr{1-3} wd{mo-fr}
Period Description	From 01:00 until 04:00, Workdays of any month
Test!	

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