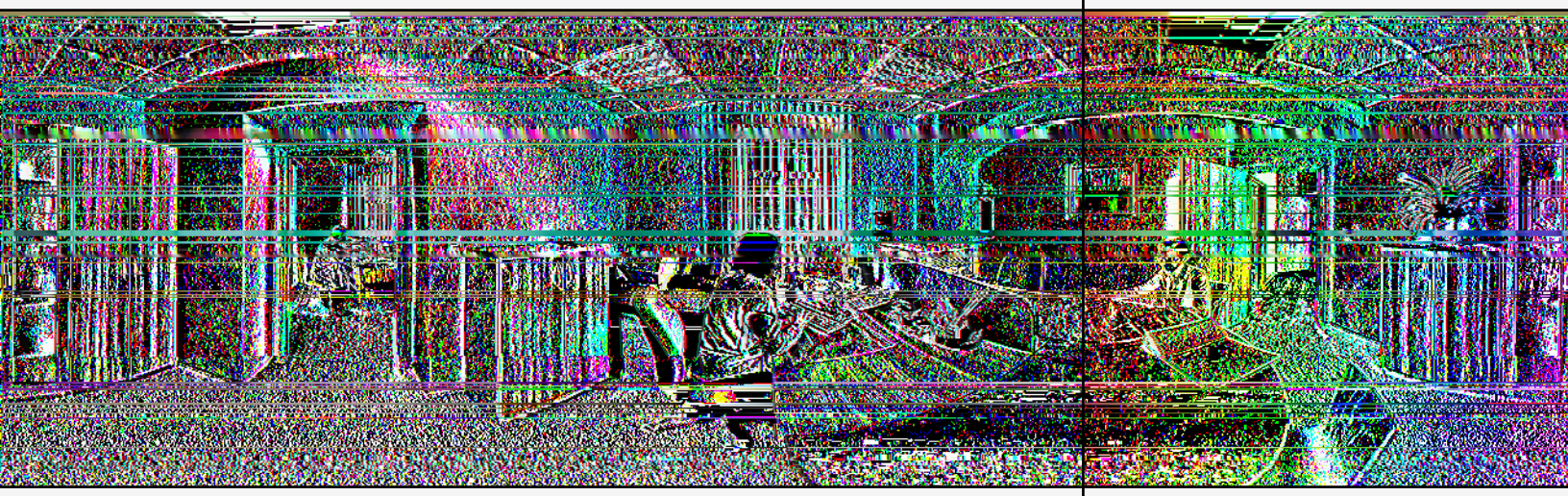
PORTA ONE

Porta Switch™



Handbook: Prepaid Billing

Maintenance Release 15

Part I

www.portaone.com

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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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Preface

This document provides PortaBilling100 users with step-by-step instructions and examples for setting up various prepaid and postpaid services on a VoIP network.

Where to get the latest version of this guide

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

Conventions

This publication uses the following conventions:

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

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

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

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

Tips provide information that might help you solve a problem.

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1. Prepaid VoIP Services

Prepaid services enable Internet telephony service providers (ITSPs) to offer calling card services that customers can pay for in advance.

The market for prepaid services includes tourists, immigrant communities, mobile populations such as military personnel, and people with limited credit histories who cannot otherwise get a private telephone line in their homes. These users can all gain immediate access to long-distance or international calling services from wherever they are located by using prepaid calling cards purchased at supermarkets and other types of retail outlets.

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Typical prepaid service scenario

In an ITSP internal network infrastructure, prepaid services are implemented through a debit card application that works in conjunction with the following:

- **VoIP gateway**
- **Interactive Voice Response (IVR) prompt server**
- **PortaBilling**

This combination of services enables a carrier to authorize voice calls and debit individual user accounts in real time.

Customer interaction:

- Customer dials access number
- Customer is asked to enter prepaid card number
- Customer enters prepaid card number
- Customer is provided with information about current balance and asked to enter destination number
- Customer dials destination number
- Customer is provided with information about maximum permitted call duration
- Call is connected
- After disconnect, Customer's balance is reduced.

System components interaction:

Customer	GW	IVR	PortaBilling
Dials the access number			
	Accepts the call and launches the IVR		
		Plays voice prompts ("Welcome…"), asks user to enter his PIN	
Enters his PIN			
		Attempts to authenticate this PIN	
	Sends authentication request using Radius protocol (User-Name equals PIN)		
			Checks that such account exists in the database, that it is not blocked or expired, and that it is allowed to use the service at this location. Upon success, returns account's

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			balance and other data. Also keeps information about this call in memory to prevent multiple logins with the same account ID
		If authentication is unsuccessful, asks to re-enter PIN or hangs up. Otherwise, tells customer his current balance and prompts him to enter phone number he wishes to call	
Enters destination number			
		Attempts to authorize call to the destination	
	Sends authorization request using Radius protocol (User-Name equals PIN, Called-Station-ID equals number dialed by customer)		
			Checks that account is allowed to call this destination, calculates maximum possible call duration based on account balance and rate for this destination
		If authorization has failed, prompts user to enter another number or hangs up. Otherwise, tells customer maximum allowed call duration and tries to call destination number	
	Determines call route according to rules (dial-peers or gatekeeper information), attempts to connect the call		
		When call is connected, sets timer to the maximum call duration	
Speaks on the phone			
		Warns customer when he has only 1 minute left and, if timer hits zero and customer is still talking, disconnects the call	
	After call is disconnected, sends accounting information		

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	about the outgoing call using Radius		
			Bills the account, customer and vendor for the outgoing call
Hangs up			
	Sends accounting information about the incoming telephony call		
			Bills the vendor of the incoming telephony service, unlocks session for this account

Setting up your network components

Cisco gateway configuration guidelines

Obtain the debitcard script

The default Cisco debitcard application is provided free of charge to all users who have a valid Cisco support contract (CCO). Obtain the latest version of the script (2.0.2.8a). Please note that this script does not support any billing tricks, such as:

- Announced and real call duration
- Different rates based on the access number
- Special rates for the account's first call

Please contact PortaOne TCL support at **tcl-support@portaone.com** for assistance in implementing these features in your script.

NOTE: According to the Cisco licensing agreement, PortaOne may not distribute the Cisco debitcard application (neither the original nor a modified version). Please contact your Cisco representative to obtain the script.

Place the debitcard script and all the required prompts on your TFTP server. For your convenience, the TFTP server is already pre-configured in the directory `/tftpboot` on the PortaBilling100 slave server. Do not send a copy of the script to PortaOne!

Basic router configuration

The latest telephony IOS and DSP firmware is highly recommended. It is also recommended that the hostname be the same as h323-id.

```
hostname <h323_id>
ip domain name <default domain>
```

NOTE: VSA h323-gw-id="hostname.domain"

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NTP

NOTE: It is very important to have reliable time services. Also make sure that the time zone abbreviation is one of the standard ones supported by PortaBilling.

```
ntp server <name/IP>
…….
ntp server <name/IP>
ntp master 5
clock timezone <your time zone> 1
clock summer-time <your summer time zone> recurring <your
rules>
```

AAA

```
aaa new-model
aaa authentication login h323 group radius
aaa authorization exec h323 group radius
aaa accounting connection h323 stop-only group radius
```

VoIP interface

```
interface <your interface to the world>
 h323-gateway voip interface
 h323-gateway voip h323-id <h323_id>
```

NOTE: If you want to use a virtual interface then add the line:

```
 h323-gateway voip bind srcaddr <IP>
```

Outgoing SIP server

```
sip-ua
 aaa username proxy-auth
 sip-server dns:<hostname-of-your-PortaSIP-server>
```

Enable gateway functionality

```
gateway
```

Enable gateway accounting

For older IOS versions:

```
gw-accounting h323 vsa
```

For newer IOS versions (12.2T or 12.3):

```
gw-accounting aaa
  acct-template callhistory-detail
```

NOTE: VSA does not work for all platforms.

Radius

IMPORTANT NOTE: Ports 1645/1646 are the traditional Radius ports used by many vendors without obtaining an official IANA assignment. The official assignment is now ports 1812/1813, and users are encouraged to migrate to these new ports when possible.

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Cisco notes:

- "radius-server" commands will be available only after issuing "aaa new-model" command
- UDP port for RADIUS accounting server - default is 1646 (see note above)
- UDP port for RADIUS authentication server - default is 1645 (see note above)

Keep in mind:

- Default ports for Cisco are 1645/1646
- Defaults in /etc/ services are 1812/1813

```
radius-server host <name/IP> auth-port 1812 acct-port 1813
radius-server key <key>
radius-server vsa send accounting
radius-server vsa send authentication
```

voice-card

controller

voice-port

Depends on your hardware configuration

call application voice & dial-peers

```
call application voice russian tftp://…../app_porta_debitcard.tcl
call application voice russian pin-len 0
call application voice russian language 1 en
call application voice russian language 2 ru
call application voice russian set-location ru 0 tftp://…./tcl/prompts/ru/
call application voice russian set-location en 0 tftp://…./tcl/prompts/en/
call application voice czech tftp://…../app_porta_debitcard.tcl
call application voice czech pin-len 0
call application voice czech language 1 en
call application voice czech language 2 cz
call application voice czech set-location cz 0 tftp://……/tcl/prompts/cz/
call application voice czech set-location en 0 tftp://……/tcl/prompts/en/
!
dial-peer voice 201 pots
 application czech
 incoming called-number 201
 port 0:D
!
dial-peer voice 202 pots
 application russian
 incoming called-number 202
 port 0:D
!
dial-peer voice 60 voip
 destination-pattern .T
 session protocol sipv2
 session target sip-server
!
```

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Quintum configuration guidelines

To configure RADIUS on the Quintum Tenor (first generation), you must execute the following commands:

```
# config
config# radius
```

To set the authentication port:

```
config radius# authenticationport p 1812
```

To set the accounting port:

```
config radius# accountingport p 1813
```

To set the ip address (replace the ip address with that of the PB-100 master server):

```
config radius# host p 192.168.100.211
```

You must set accounting type to 2 (one accounting record per call leg):

```
config radius# accountingtype 2
```

For more information on these commands, please refer to Section IV: Command Line Reference in the Tenor user manual.

To configure RADIUS on the Quintum CMS gateway, you must execute the following commands in admin mode:

```
# config
config# ri 1
```

To set the authentication port:

```
config-RadiusInfo-1# set pap 1812
```

To set the accounting port:

```
config-RadiusInfo-1# set pacp 1813
```

To set the ip address (replace the ip address with that of the PB-100 master server):

```
config-RadiusInfo-1# set psipa 192.168.100.211
```

You must set accounting type to 2 (one accounting record per call leg):

```
config-RadiusInfo-1# set at 2
```

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NOTE: Do not configure a RADIUS routing server unless you have one, or else the RADIUS records will not be delivered to PortaBilling.

For more information on these commands, please refer to the Tenor CMS Command Line Interface reference guide.

To configure RADIUS on the new generation of Quintum gateways (AX/DX series), you must execute the following commands in admin mode:

Ethernet:

```
EthernetInterface
set IPAddress {IP}
set SubnetMask {NetMask}
StaticIPRouteDir
add 0.0.0.0 NetMask 0.0.0.0 Gateway {RouterIP}
```

TimeServer:

```
TimeServer
set UTCOffset {Hours}
set PrimaryServerIPAddr 192.43.244.18
set SecondaryServerIPAddr 131.188.3.222
```

Radius:

```
RadiusInfo UserServer
set PrimaryServerIPAddr {RadiusIP}
set SharedSecret {SecretKey}
set AccountingType 2
```

Unit:

```
SIte
set Country 1
GateWay
set OutgoingIPRouting 1
DialPlan
set LongDistancePrefix
set CarrierPrefixPattern
set INTernationaLPrefix[1]
set MAXDNlength 20
set MINDNlength 10
SLot SL2
set Online[1] 1
PUBlicNumberingPlan
set CountryCode
set AreaCode
HuntLDNDirectory pub1
add {AccountID}
```

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Basic prepaid service

Please refer to the **PortaBilling100 Web Reference Guide** PDF file for detailed instructions on how to navigate and operate the web interface, as well as detailed explanations of particular fields.

Checklist

Print the following page and use it to check off the operations you have completed while performing system setup according to the instructions in this chapter. Please be sure to perform all of the operations (all of the boxes must be checked), otherwise the service will not work.

Operation	Done
General configuration	
Enter company data under Company Info.	[ ]
Specify a base currency.	[ ]
For any other currency you plan to use, specify the exchange rate source and define exchange rates.	[ ]
Create all the required destinations.	[ ]
Network configuration	
Create a node for your gateway.	[ ]
Configure your gateway.	[ ]
Rating configuration	
Create a tariff A, which will be applied to prepaid card users.	[ ]
Insert rates in tariff A for the destinations you plan to call.	[ ]
Create a tariff B, which describes your termination costs.	[ ]
Insert rates in tariff B for the destinations you plan to call.	[ ]
Create your prepaid product.	
Create one accessibility entry for this product, using the node you created and tariff A.	[ ]
Create a vendor.	[ ]
Create a connection for this vendor using tariff B.	[ ]
Account provisioning	
Create a customer class which will apply to your prepaid card distributors.	[ ]
Create a retail customer who owns the prepaid cards.	[ ]
Generate accounts for this customer.	[ ]
Testing	
Try to make a test call.	[ ]

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Initial configuration of PortaBilling

TIP: When the system has just been installed, use username **pb-root** and password **pb-root** to login.

The following steps are normally performed only once, after the system has been installed:

Visit **Company Info** on the main menu. Enter information about your company and set up a base currency. Of course this does not limit your operations to this currency only. However, on reports such as cost/revenue different currencies will be converted to the one you specify here.

NOTE: Once you set up a base currency, it cannot be changed. If you make a mistake, you will have to start with a new PortaBilling environment.

From the main menu, choose **Users** and create login entries for users who will be working with the system. It is not recommended that the default PortaBilling root user (`pb-root`) be used for any operations other than initial set-up. Make sure you are able to login as the newly-created user and change the password for the pb-root user.

If you plan to do billing in more currencies than one, define them in the **Currencies** section and specify exchange rates in **Exchange Rates.**

Create destinations

This step is only required if you have not defined the necessary destinations before. There are two ways to insert new destinations into the system:

- One-by-one, using the **Add** functionality on the web interface
- Bulk update, by uploading destinations from a file

NOTE: A file with the default destination set is supplied with PortaBilling. You can download it and then upload it to the server. However, it may be possible that your business requires different types of prefixes, so please check the data in the file before uploading.

Creating destinations "one-by-one"

1. In the Management section of Admin-Index, choose **Destinations**.
2. Click on the **Add** button.
3. Fill in the required information. This includes the phone prefix and country. Country subdivision is optional. You can use the **Description** column to store some extra information

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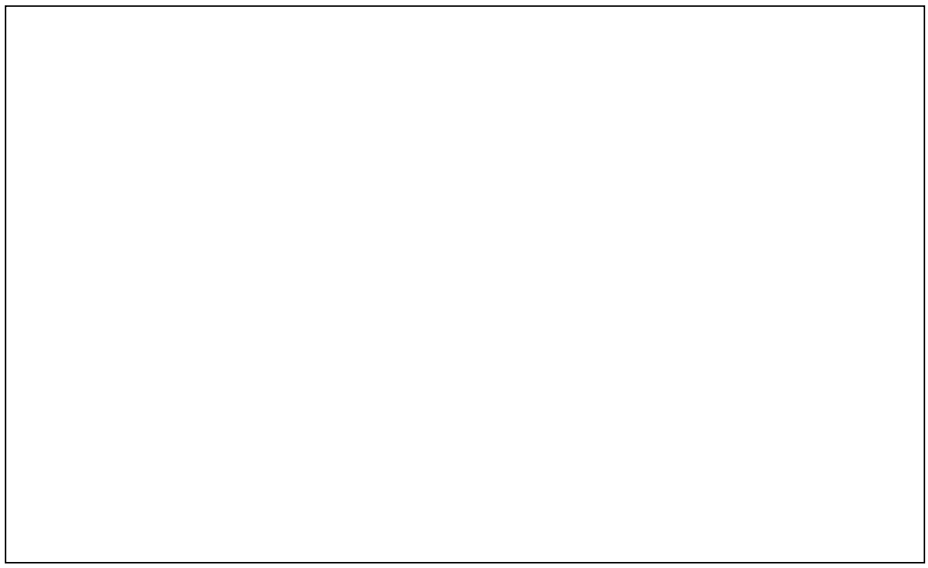
about the destination (for example, if it is a mobile or fixed number).

4. Click **Save**.
5. Repeat for any additional destinations you would like to add.

Uploading a set of destinations from a file

1. In the Management section of Admin-Index, choose **Destinations**.
2. Click on **Get default set** to download a set of destinations as a CSV (Comma-Separated Values) file.



3. Open this file in Microsoft Excel or any other suitable program. Edit the data if required.
4. Save the file and close it in Excel.
5. Switch back to the PortaBilling web interface, and click **Upload** on the Destinations screen.

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6. Type in the filename of the file you have edited, or click on the **Browse…** button and select the file.
7. Click **Save&Close.**

Create Nodes

This step is only required if you have not entered your gateways into the system before. In this case, you must enter your gateways as nodes. PortaBilling requires some key information about your network equipment such as IP address, h323-id, Radius shared secret, etc.

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1. In the Management section of the Admin-Index page, choose **Nodes.**
2. In the Node management window, click the **Add** icon.
3. Fill in the New Node form:
   - **Node name** – A short descriptive name for this node (will be used in the select menus).
   - **H323-ID** – h323-id (recommended `hostname.domainname`).
   - **VoIP Password** – If you plan for this node to send calls to other nodes where the default Cisco remote IP authentication script is used, enter `cisco` here.
   - **NAS-IP-Address** – IP address of the gateway.
   - **Auth. Translation rule** – Leave this empty for now; see the *Translation Rules* section of the **PortaBilling Administrator Guide**.
   - **Manufacturer** - Select **Cisco** or **Quintum**.
   - **Type** – VoIP node type; select **VOIP-GW**.
   - **RTP proxying** – Leave the default selection (Optimal); for more details regarding NAT traversal, see the **PortaSIP Administrator Guide**.
   - **Radius Client** – Select if this node will be communicating with the billing system.
   - **Radius Key** – If this node is a radius client, enter the shared secret here; must be the same as that configured in NAS as a **key** in the radius server configuration.
   - **Radius Source IP** – See the *Node ID, NAS IP address, and Radius source IP* section of the **PortaBilling Administrator Guide**. Unless your gateway has multiple network interfaces, the value here should be the same as the NAS-IP-Address.
4. Click **Save&Close.**
5. Repeat steps 2-4 until all of your nodes have been entered.

NOTE: There is some propagation delay between the database and the Radius server configuration file, but no more than 15 minutes.

Create Tariff

A tariff is a single price list for call services. A tariff combines:

- conditions which are applicable to every call regardless of the called destination
- per destination rates

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- **Applied To** – Designates whether this tariff will be used to charge your prepaid customers (in this case, choose a **Customer**) or to calculate costs associated with your vendors (in this case, choose a **Vendor**).
- **Managed By** – Choose "**Administrator Only**" here (this option is only visible after you select **Applied to: Customer** above).
- **Service Type** – Choose **Voice Calls** here.
- **Off-peak Period** – Defines the off-peak period. Click on the Off-peak period wizard icon ( ) to summon the wizard, which will help you construct the correct period definition. Click **Help** to get more information on period format definition. If you do not differentiate between peak and off-peak rates, just leave this field blank.
- **Off-peak Description** – Description of the off-peak period, automatically filled in by the off-peak period wizard. You do not have to fill in this field.
- **Destination Group Set** – If you wish to enter rates in the tariff not for each individual prefix, but for a whole group of prefixes at once, you should create a destination group set and destination groups beforehand. Leave this select menu empty for now.
- **Free Seconds** – The 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 (first interval; see the *Enter Rates* section above).
- **Post-Call Surcharge** – Percentage of the amount charged for the call.
- **Login Fee** – Amount to be charged immediately after the first user authentication (i.e. after the user enters his PIN).
- **Connect Fee** – Amount to be charged for each connected call (with a non-zero duration).
- **Round Charged Amount** – Instead of calculating xDRs with a 5-decimal-place precision, round up xDR amount values (e.g. XXXXX.XX000 means rounding to cents, so that 1.16730 becomes 1.17).
- **Default Formula** – The default rating formula which will be applied to every new rate created in the tariff. If you leave this empty, "old-style" rating will be used.
- **Short Description** – A short tariff description. This will be shown in the rate lookup on the admin interface and the self-care pages for your accounts and customers. For example, for a tariff named Cust-ABC-Easy Call-1800, the short description will provide better information for your reseller ABC, who will be using this tariff, such as: "EasyCall – via a toll-free number".
- **Description** – Extended tariff description.

3. Click **Save.**
4. Repeat steps 1-3 until you have entered all of the tariffs.

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Enter Rates

Rates are per-destination prices. Please refer to the *System Concepts* chapter in the **PortaBilling Administrator Guide** for more details on billing parameters.

Managing rates online

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

1. On the Tariff Management page you will see a list of available tariffs. Click the **Rates** icon next to the name of the tariff. When you are in Tariff Management for a particular tariff, click on **Rates** in the toolbar.
2. In the **Edit Rates** screen, click **Add.**
3. Fill in the required information:
   - **Destination** – The 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 column header). Here you can find the desired prefix by country name.

NOTE: The phone prefix you are trying to create a rate for must already exist in Destinations.

   - **Interval First** – First billing unit in seconds.
   - **Interval Next** – Next billing unit in seconds.

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- **Price First** – Per-minute price for first interval.
- **Price Next** – Per-minute price for next interval.
- **Off-peak Interval First**– First billing unit in seconds for off-peak time.
- **Off-peak Interval Next** – Next billing unit in seconds for off-peak time.
- **Off-peak Price First** – Per-minute price for first interval of off-peak time.
- **Off-peak Price Next** – Per-minute price for next interval of off-peak time.

NOTE: Off-peak fields appear only if an **off-peak period** has been defined for the tariff.

- **Effective From** – If you want this rate to take effect sometime in the future, you can either type in a date manually, or use the calendar (click the DD-MM-YYYY link).

NOTE: When using the calendar, you can specify that the date you are entering is in a different time zone than your current one. PortaBilling will then automatically adjust the time.

- **Rate Formula Wizard** – Launches the wizard for creating a custom rating formula
- **Hidden**, **Forbidden** or **Discontinued** – These flags are optional.

4. Click the **Save** button in the toolbar, or the icon on the left end of the row.
5. Repeat if you need to enter more rates.

Managing rates offline

NOTE: Templates are available in PortaBilling – a powerful tool for uploading rates from custom format data files. However, in this particular example we assume that you are preparing data in the default PortaBilling format.

A rates table may be prepared using a spreadsheet processor (i.e. Microsoft Excel) and easily imported into PortaBilling. This is very convenient if you wish to make many changes. For example, you might want to increase all prices by 10%.

1. If you are not in Tariff Management for your tariff, go to the main menu, click on **Tariffs**, and then click on the tariff name.
2. In the Edit Tariff window, move the mouse over the **Download** button and hold it there until a popup menu appears. Choose the **Now** menu item and click on it. This will download the current set of rates (empty), and will also provide you with an overview of the file structure.

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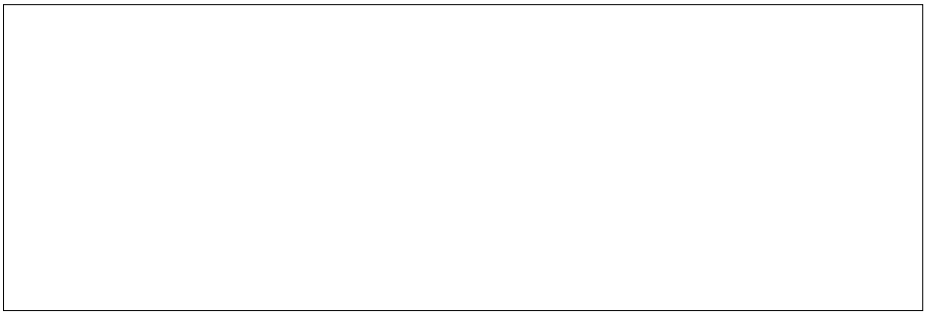
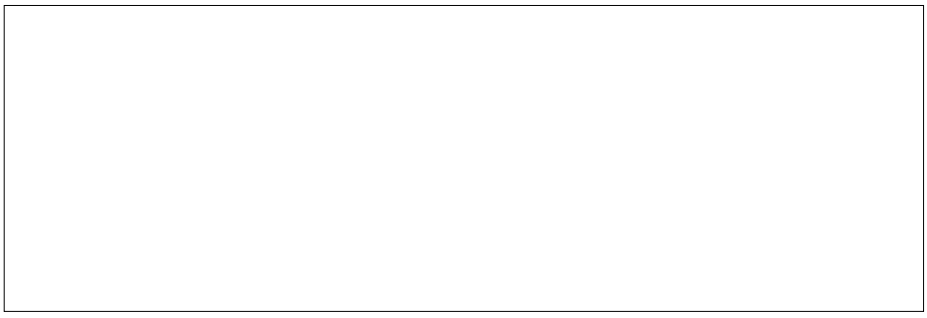
3. You will see the **File Download** dialog and be prompted to save the file or open it from its current location. We recommend that you first save the file to the folder you will be using in the future to store tariff data files, then open it in Excel.
4. You should see something similar to the screenshot below:



5. Edit the file by adding more rows with rate data, so that it looks like the screenshot below.
6. Note that the columns **Country** and **Description** are for reference purposes only, and are ignored during import. Also, when using the default template you must fill in the data in the **Off-peak** columns even if your tariff does not have an off-peak period (use the clipboard to easily copy values for the four peak columns).
7. Also note that you may only use those phone prefixes which you have already defined as destinations (see **Create Destinations** above).
8. Make sure that you clear the values in the **Effective From** column (which means that the new rates are effective immediately) or enter a future date there. Otherwise, if you retain past dates, then these rates will fail to upload.



9. Save the file in Excel. You will probably get a warning from Excel that your file "*may contain features that are not compatible with CSV (Comma delimited)*". Ignore this, and choose **Yes** to retain CSV format.
10. Close the file in Excel. If you performed step 6, then disregard the message "*Do you want to save the changes you made*", as this is only due to the fact that your format is not the native Excel XLS format.
11. Go back to the PortaBilling web interface and the **Edit Tariff** screen.
12. Click on the **Upload** button.

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13. Either enter the name of your file manually, or click **Browse…** and choose the file.
14. Click **Save&Close**. You should return to the **Edit Tariff** screen, where a message will inform you of the status of the import. Also, you will receive an email confirmation about the tariff upload. If any operation failed, you will receive the portion of data which was not uploaded as an attachment, so you can try to import it later.

You can verify your work using the **Edit Rates** feature. After you have done so, go to the **Main Menu** (by clicking on the **Home** icon).

Test the rate configuration (optional)

1. While in the **Edit Tariff** window, click on the **Test** button to go to the Test Call Rating screen.

2. Type in the phone number for which you would like to test the rating, as well as the estimated call duration, then click on the **Test** button.

3. You will now see the estimated amount charged for this call, as well as a detailed explanation of the rating process.
4. Press the **Close** button to return to the **Edit Tariff** window.

Create all required tariffs

Repeat the *Create Tariff* and *Enter Rates* steps until you have created:

- A tariff for each account's billing scheme, these tariffs are created as "Applied to: Customer". For example, if you plan to charge your customers more when they access toll-free lines instead of local ones, you need two tariffs, i.e. "Normal" and "Using Toll-free line".

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- A tariff with the termination costs for each termination partner you have, these tariffs are created as "Applied to: Vendor".
- If you have resellers, you should also create tariffs that you will use for charging each of them, these tariffs are created as "Applied to: Reseller". Do not create tariffs which will be applied to your resellers' subscribers yet. First create resellers and then return to this step. Make sure that, when creating these subscriber tariffs, you choose *Managed by NNN* in the menu, where *NNN* is the name of the corresponding reseller. For more details, see the *Setting up a prepaid card reseller service* section.

Create Product

Prepaid cards will be issued for a specific product. Products are a powerful feature that defines different ways to bill an account. Product definition is always done in two steps: product definition and creation of the accessibility list.

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In the Management section of the Admin-Index page, choose **Products**.

1. On the Product management page, click the **Add** icon.
2. Fill in the "Add product" form:
   - **Product name** – Product object name.
   - **Currency** – Product currency. Only tariffs which have the same currency will be permitted in the accessibility list.
   - **Managed by** – If you plan for this product to be used for your reseller's accounts, so that the reseller himself can change the parameters of this tariff and create new accounts with this product, choose the customer's name from the menu. Otherwise choose **Administrator only** here.

General Info tab

- **Breakage** – Leftover balance which is considered "useless" (for statistical purposes). Accounts with a balance below breakage will be counted as *depleted*. This does not affect account authentication or authorization, so the account can still make calls if there is enough money left to cover at least the first interval.
- **Account default ACL** – The access level assigned by default to new accounts created with this product. The ACL determines which operations may be performed by accounts on the self-care pages. The default value is "Account self-care" (pre-defined ACL), which allows all possible operations.
- **Default Discount Plan** – Leave **None** as the selected entry, since discount plans are typically used for postpaid services. Please refer to the description of volume-based discounts in the **PortaBilling Administrator Guide** for more details.
- **Info URL** – If you have an external server with a description of product features, enter the URL here (e.g.

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http://www.myproduct.com). Your customers will be able to go there from their self-care page.
- **Description** – Your description of the intended use of this product.

Maintenance Fee tab

- **Period** – Surcharge application interval; will be shown in call history as a separate line each time it is charged. **None** disables the maintenance fees.
- **Fee** – Surcharge amount.
- **Effective from** – Apply the specified maintenance fee only after a certain date (no fees assessed until then); choose **Immediately** to start applying charges as soon as possible.

3. Click **Save.**
4. Click on the **Accessibility** tab to edit this product's accessibility.

Enter Node and Tariff into the product's accessibility list

The accessibility list has two functions: it defines permitted access points (nodes and access numbers) and specifies which tariff should be used for billing in each of these points.

1. With the Accessibility tab selected, click on the **Add** icon.
2. Choose **Voice Calls** in the **Service Type** select menu.
3. In the Accessibility entry window, select the node where your IVR will be running and choose the appropriate tariff.
4. You can also use an access number for Accessibility in the **Access code** field. For example, if you have a node with two access numbers, local (12345) and toll-free (1800 12345), you can set up the product's accessibility in such a way that if a customer calls via a toll-free line, he will be billed using a different tariff (one which includes surcharges).

NOTE: The Access Code feature requires modification of Cisco platform application scripts; see **Help** item on the Accessibility screen for more information. The Access Code feature on the Quintum platform requires the ACCESSCODE feature (available in the recent firmware).

5. The **Info-digits** menu allows you to apply different tariffs depending on the type of line from which your customer originates a call. If you are unsure whether your telecom sends such information, leave the default value ANY.
6. Click **Save** to save this accessibility entry.
7. Repeat steps 1-6 if you want to define more accessibility entries.

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Create Vendors

This step is only required if you have not entered information about your vendors into the system before. Vendors are your termination partners or the providers of incoming toll-free lines.

1. In the Management section of the Admin interface, choose **Vendors**.
2. On the Vendor Management page, choose **Add**.

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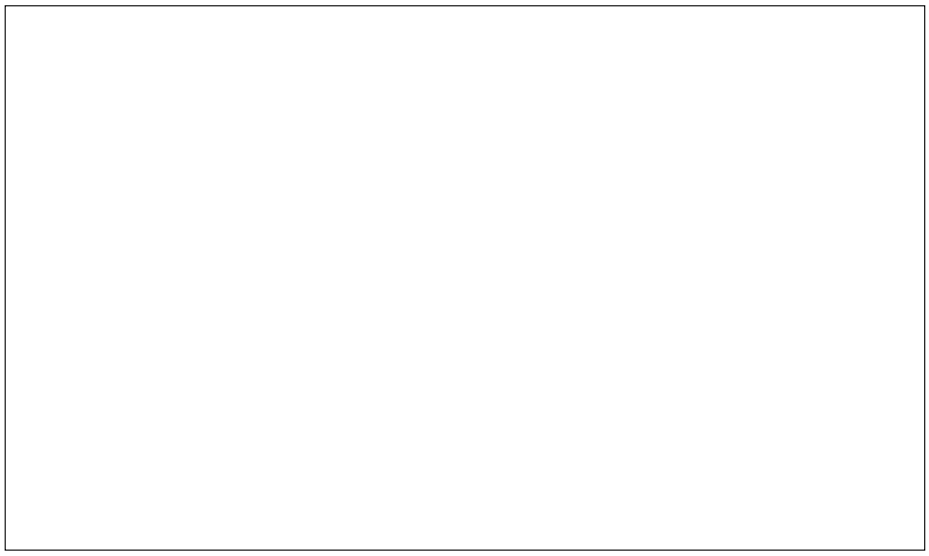

3. Fill in the **New Vendor** form. Please note that there are two tabs available on the screen. The most important fields are:

Main form (top)

- **Vendor Name** – Short name for the vendor object; will be used on the web interface.
- **Currency** – The currency in which this vendor charges you.
- **Opening balance** – Starting balance for the vendor; default is zero.

Additional info

- **Billing period** – Split period for vendor statistics.

User-Interface

- **Time zone** – The time zone which the vendor uses for his billing period. Statistics will be divided into periods according to this time zone.

4. Click **Save&Close**.
5. Repeat steps 2-4 to add all of your vendors.

Define connections

This step is only required if you have not entered information about your vendors into the system before. Vendors are your termination partners or the providers of incoming toll-free lines.

1. In the Management section of the Admin interface, choose **Vendors**.
2. Click on the **Connections** icon next to the vendor name.

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3. Choose the connection type **PSTN to Vendor**, **VoIP to Vendor**, etc., by clicking on the corresponding tab.
4. Press **Add** to add a new connection.
5. Fill in the connection information. If you send traffic to the vendor via telephony, choose the node and enter an optional port pattern. If you send traffic via VoIP, enter the remote IP address. Choose the tariff which defines your termination costs for this connection/vendor. **Description** and **Capacity** are mandatory for all connection types.
6. Click **Save**.
7. Repeat steps 3-6 to add more connections to the same vendor, then click **Close** in order to exit to the **Vendor Management** screen.
8. Repeat steps 2-7 to add connections for other vendors.

Create a Customer Class

Customer class provides the ability to define a group of parameters in a centralized way, then apply those parameters to many customers at once. (If you have already created a customer class that you can use for prepaid card distributors, skip this step and go to the next one.)

1. In the Management section of the Admin interface, choose **Customer Classes**.
2. On the Customer Class Management page, choose **Add**.

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3. Fill in the **Name** parameter; the other fields can be left empty for now.
4. Click **Save&Close**.

Create a customer

A customer is an owner of accounts. The customer's contact information is used to distribute account usage information, call statistics, invoices, and so on. Even if your company owns and distributes all of its prepaid cards, you will need at least one customer object for your company.

In the Management section of Admin-Index, choose **Customers**.

1. On the Customer Management page, choose **Add**.
2. Fill in the **New Customer** form. Please note that there are several tabs with extra information available on the screen. The most important fields are:

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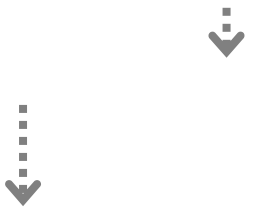
3. Click **Save&Close.**

Generate Accounts

NOTE: Before generating accounts for a production system, read the section on "Provisioning prepaid accounts".

1. Go to the **Customers** screen (the screen which contains a list of customers). It should look like the screenshot below:



2. Next to the customer name, click on the Account or icon (the one in the **Accounts** column), which will take you to the account management for that customer.
3. Click on the **Account generator**.
4. Fill in the "Account generator" form:
   - **Number of accounts** – Number of accounts (prepaid cards) to be generated.
   - **Product** – Choose the product which you would like your accounts to have.

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