PORTA ONE

PortaSwitch

New Features Guide

Maintenance Release

48

Documentation

www.portaone.com

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Preface

PortaSwitch® Maintenance Release 48 is the next leap-forward release, consistent with our "fast releases, precisely on time" ideology.

Where to get the latest version of this guide

The hard copy of this guide is updated upon major releases only and does not always contain the latest material on enhancements introduced between major 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`.

The **exclamation mark** draws your attention to important information or actions.

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 here.

Archivist explains how the feature worked in previous releases.

Gear points out that this feature must be enabled on the Configuration server.

Tips provide information that might help you solve a problem.

Trademarks and Copyrights

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New Versions of Linux

PortaSwitch® Maintenance Release 48 utilizes **Oracle Enterprise Linux version 7.1**. Oracle Enterprise Linux version 7.1 includes a new version of kernel and an updated collection of applications that offer the following benefits:

- Faster performance
- Even better security
- Better support for modern hardware
- Higher reliability

Outstanding Balance Adjustment

Sometimes service providers may need to adjust an invoice amount and leave the invoice unchanged (for example, when a customer disputes an invoice and asks for a waiver although the invoice data has already been included in company reports).
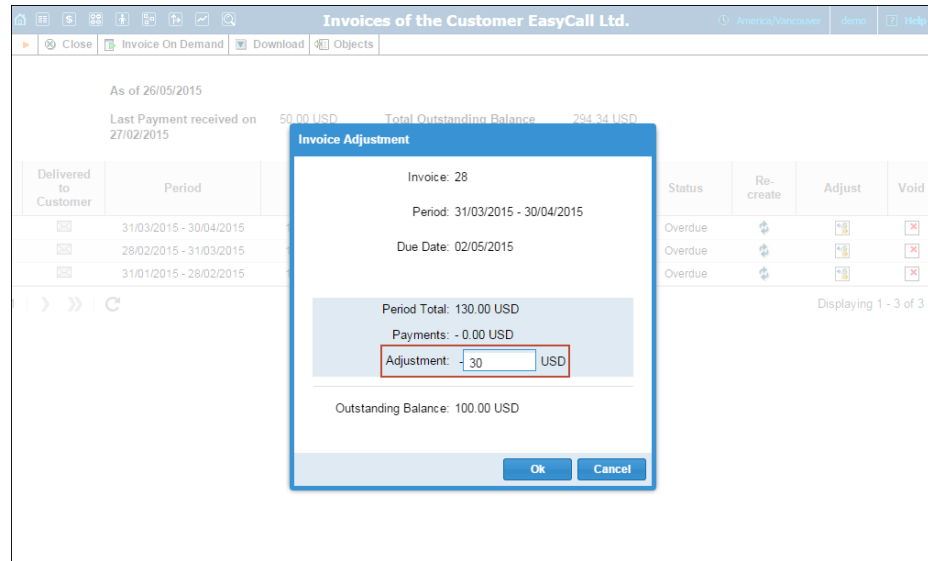
Outstanding balance adjustment functionality does just that. Now administrators can reduce the amount a customer must pay for an invoice without regenerating the invoice. To do this, the administrator just enters the waived amount for the invoice. The customer pays only the balance to cover the invoice in full.

The adjustment operation does not change any invoice data (or what's on the PDF file). If an adjustment is made to an invoice issued several billing periods ago, all subsequent invoices are also left unchanged. The adjustment transaction(s) is only reflected in the invoice for the current billing period.

Consider the following example. A customer's billing period is monthly. On March 1st, an invoice for February for 1000 USD is generated and on April 1st, a March invoice for 500 USD is generated. Later in April, the customer disputes some of the charges from his February invoice and is given a waiver for 50 USD. The administrator enters the waived amount and therefore the customer pays 1450 USD. Now his February and March invoices are paid.

These transactions will be reflected in his April invoice:

- Previous Balance   – 1500 USD
- Invoice Adjustment –   50 USD
- Payment   – 1450 USD

With outstanding balance adjustment functionality, ITSPs easily deal with invoices requiring offsets. Additionally, the workload for the accounting department is reduced since activities related to invoice regeneration (i.e. resending invoices, etc.) do not have to be performed.

Mandatory Minimum for Service Usage

Starting with this release, service providers can define a mandatory minimum for customers who commit to using a specific quantity of service. The mandatory minimum ensures that customers' service charges are always equal to or higher than a predefined amount.

Consider the following example. A customer signs a contract guaranteeing great rates but he is obligated to spend $1000 minimum per month on voice calls. In fact, the customer only spends $800, and as a result, the deficient $200 amount is added to his invoice so that it equals $1000.

This approach means the revenue stream is more predictable for service providers and allows them to plan their expenses more efficiently and become more financially stable.

Unified Interface for PBX Feature Access Codes

With this new release we introduce the unified interface for controlling PBX feature access codes. Previously scattered over service configuration settings, they are now gathered in one place and have become part of a dialing rule. Being able to view all of the available feature access codes at once makes it much simpler to manage them and to check what codes are assigned to a customer.

The unified control interface also smoothes the transition to the PortaSwitch® hosted PBX from other PBX solutions. You can create sample dialing rules so that each contains the set of default feature access codes for popular PBXs (the other fields may be left empty). When customers migrate to your service from one of these PBX solutions, assign them the sample dialing rule that contains relevant codes. Customers will be able to use the feature access codes they are accustomed to, and you will save time on configuring codes for each customer individually.

NOTE: The Paging/Intercom feature access code will be moved to a dialing rule with the next release.

Another thing that can save administrative time is predefined values for feature access codes. Enabled PBX features can be used with PortaBilling® predefined access codes, so you don't need to take any action to assign feature access codes.

For example, the **Call Parking** feature has the default access code *70. As soon as call parking is enabled for a customer, that customer can dial *70 to park a call.

The upgrade will affect configured dialing rules and feature access codes in the following ways:

- If a customer has a dialing rule assigned, but no feature access codes configured, the predefined values of the feature access codes will be added to the rule after the upgrade.
- If a customer has some of the feature access codes configured, a new dialing rule that contains these customized access codes will be assigned to the customer after the upgrade.
- If several customers share a dialing rule and have feature access codes configured, each customer will receive a customized copy of the original dialing rule. Each of the copies will contain feature

access codes that were configured for the particular customer before the upgrade.

ACLs for Quick Forms

With this release, a PortaBilling® administrator with **root** level access (ACL) can manage the availability of certain quick forms for different types of users. This gives more privacy for ITSPs' business and prevents users from viewing irrelevant quick forms.

The feature is implemented via the **Managed by** list on the **Add Quick Form** page. This list represents the administrator and all resellers in the current billing environment. Once an administrator or reseller is defined, a current quick form becomes available only for that person and their employees – they are the only ones to see the quick form when a new customer or account is created.

The next step is granting rights to certain users under an administrator or reseller to see and use quick forms. To do this, an administrator with a **root** ACL must move the required user ACLs from the **Available ACLs** list box to the **Included ACLs** list box. The **Available ACLs** list box represents all access levels of the **User**, **Distributor** or **Reseller** types from the current PortaBilling® environment. Note that the ACLs of an administrator or reseller must also be included to the right list box to make this quick form visible to them.

This feature assures that resellers cannot see others' quick forms so as to maintain privacy. That is why the Reseller ACL cannot be moved to the right list box when the quick form is managed by an administrator.

Consider the following example:

A PortaBilling® administrator with a root ACL needs to create a quick form for the **ABC Shuttle** reseller and its distributors. To do this, the administrator proceeds with the following steps:

1. Goes to the **Quick Forms** page from the main menu.
2. Presses the **Add** button.
3. Selects **ABC Shuttle** in the **Managed by** list.
4. Selects customer class and currency from the options available for this reseller.
5. Moves all ACLs related to the resellers and distributors who will use this quick form to the **Included ACLs** list box.
6. Saves the changes.

Now the ABC Shuttle reseller and its distributors can see the **ABC-S Main Quick Form** every time they create a new customer or account.

The **ACLs for Quick Forms** feature assures even more privacy for ITSPs and resellers who want to keep their quick forms secure. This feature ensures that everybody has access to only those quick forms they really use.

Multiple Balance Warning Thresholds

With this release you can send your customers multiple reminders that will contain updated information as their balance approaches the credit limit. Thereby you eliminate the chance that notification is overlooked or ignored and thus prevent the customer balance from exceeding the credit limit.

To do this, you simply define several balance warning thresholds for a customer. When a customer's balance crosses a threshold, the corresponding notification is sent to the customer's e-mail or mobile phone.

NOTE: For *postpaid* customers, balance warning thresholds can be defined either as amounts or as percentages of a positive **Permanent Credit Limit** value. For *prepaid* customers, balance warning thresholds can be defined only as an amount of an **Available Funds** value.

Consider the following example:

Jennifer Pratt has a credit limit of $100. The administrator defines the balance warning thresholds for her balance as follows: 80% and 95%. By the 20th of December her balance reaches $80, therefore she receives the first notification stating her current balance. However, as Jennifer is busy with Christmas preparations, she forgets about the notification and does not top up her balance.

Then with Christmas celebrations over, Jennifer's balance has increased to $95 so she receives a second notification. She realizes that her balance is close to exceeding her credit limit; therefore she makes a $100 payment.

Please note that if several balance warning thresholds are crossed at a time, the notification about the last threshold crossing will be sent to a customer. For example, Jennifer's current balance is $75. She pays $20 for a pay-per view movie and her balance becomes $95, crossing both the 80% and 95% thresholds. Jennifer receives only one notification about crossing the 95% threshold.

Thus, with the option to set up and send multiple notifications you improve customer experience of provided services.

Improved Multi-currency Support for Resellers

To allow resellers to run their business smoothly across different countries, the multi-currency support functionality has been extended with the following new options:

- Currency selection for charging subresellers. Now resellers are able to charge their subresellers in currencies that are different from their own (e.g. a reseller's base currency is USD, but he wants to charge a subreseller in EUR). To do this, the reseller selects the desired currency while creating the subreseller. The resale tariffs (the subreseller will be charged according to this) are created in the currency selected. Then the resale tariff rates are automatically converted, based on the current exchange rate and including the selected markup. Note that the reseller can adjust the current exchange rate for rate conversion if required.

Clone 'Reseller - Outgoing' Tariff		
Resale Tariff Name: *	Pramod Kumar - outgoing	
Currency:	EUR	
Exchange Rate:	1.00 USD = 0.90 EUR	
Generate Resale Tariff Rates		
Add Markup to Buying Price:	50 %, but at least: 0.05 EUR / min	
Resale Tariff Description:		
	Clone	Cancel

- Currency selection for charging end users. Now, for charging customers in different currencies, a reseller just needs to clone one of his products and select the desired currency for the new product. The current exchange rate can be used for rate conversion or the reseller can adjust the exchange rate as necessary. The reseller can also indicate that the cloned product is being created with empty sales tariffs and then later upload the desired sales rates manually.

Enhancements made to the multi-currency support functionality will allow resellers to easily configure and manage their subresellers and end users around the globe.

Auto-provisioning for New Models of IP Phones

The list of IP phones that are auto-provisioned by PortaSwitch® has been extended to include the following phones:

- Grandstream GXP1160
- Grandstream GXP1165
- Grandstream GXV3275
- Grandstream HT701
- Grandstream HT704

Other Features and Enhancements

- **The account self-care IVR application is now partially supported by the New Media Server** – By using the account self-care IVR application, end users can check their voicemail, account balances and manage their numbers and preferences. Support for the forwarding settings menu will be implemented in subsequent releases.

- **The New Media Server supports two more applications** – The New Media Server now supports the Auto-attendant and Record Voicemail IVR applications.

- **Indicate necessity of credit card security code** – A CSC (card security code) verification is a common safety measure for online payments, and in many cases a merchant acquirer, a payment processor or / and an ITSP as a merchant will request a CSC to be included with every transaction.
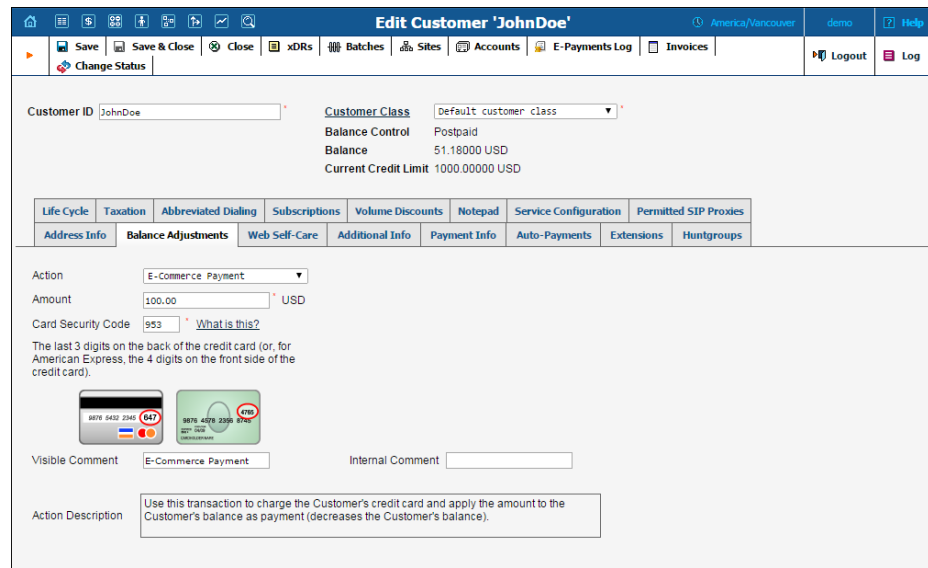
  When an ITSP's merchant account which is interconnected with a particular payment processor is configured to check CSCs, it must be indicated in PortaBilling® by selecting the **CC Security Code** option for this processor. (This option is only available for non-tokenized payments, when credit card data is stored in PortaSwitch®.)

  This prevents the enabling of auto-payments via the payment processor.

  NOTE: It also discards already configured auto-payments.

  Administrators are given the option to enter CSCs and successfully pay online on behalf of customers (the field for entering a CSC is invisible until this option is selected).
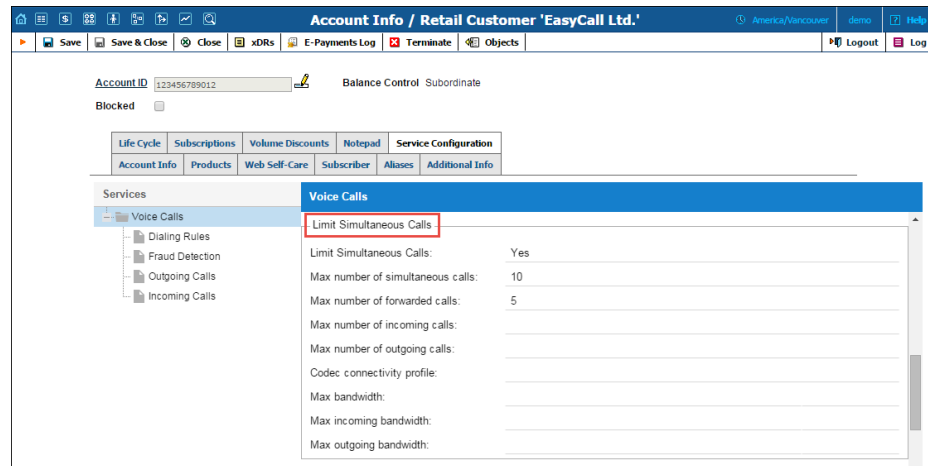
Edit	Name*	Processor*	Login*	Password									URL suffix*	Test Mode	Recurring	Store CC Information	CC Security Code	Delete
		▼			☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☑	☐	
☰	auth.net	AuthorizeNet	2WnvSNEp69G	************								VISA				☐	☐	
☰	cielo	Cielo	test	************						●●				⚙ TEST		☑	☑	
☰	LK	LinkPoint	test	************					●●					⚙ TEST		☑	☐	✖
☰	PX	PaymentExpress	test	************							VISA			⚙ TEST		☑	☐	✖
☰	WorldPay Junior	WorldPay Junior	test	************						●●				⚙ TEST				✖

- **Configuration for three features is now visible on the account page** – These features are:

  Fair Usage Policy,

  Limit Simultaneous Calls, and

  Geo-IP Fraud Detection.

  Information about the features is available in read-only mode. As in the past, the PortaBilling® administrator can modify the configuration of these features either via **Product**, **Customer**, or **Site**. This enhancement simplifies administrators' searches for account information.

  NOTE: Information about Fair Usage Policy, Limit Simultaneous Calls and Geo-IP Fraud Detection feature configurations is visible for administrators only and is not available for end users via their account self-care.

- **Inactive volume discount plans can now be displayed on the customer and account self-care interfaces** – This includes volume discount plans with the status *Consumed* or *Not Yet Active*. To display them, the **Inactive** check box must be selected.
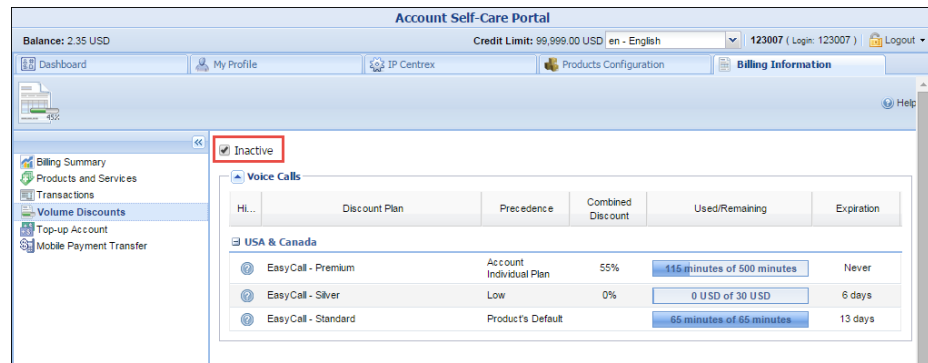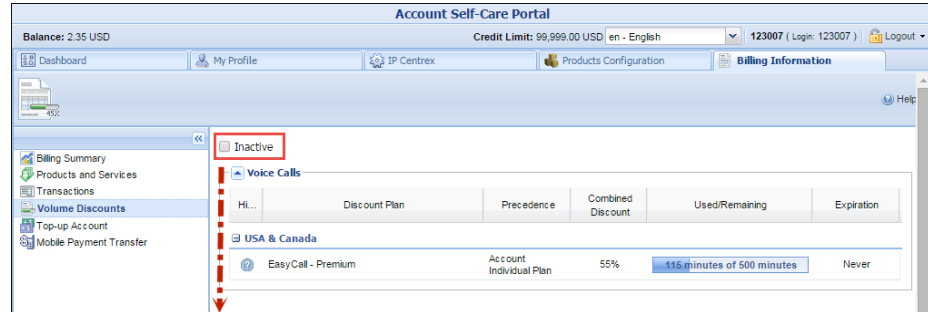
- **Assigned DIDs can be moved only to the same kinds of owner batches** – Starting with this release, DIDs assigned to a customer or reseller can be moved only to owner batches of the same type (i.e. to free owner batches or to owner batches with DID markup) via the DID inventory. This helps you to better manage DID numbers already assigned to your customers. For example, to better arrange all North American DIDs assigned to your customers, split them into Canadian and US numbers by assigning them to separate "Canada" and "The US" owner batches. This also allows you to introduce different pricing schemes. For example, to reduce charges for your Canadian customers for DID number usage, create a separate owner batch, define a reduced DID markup and assign the Canadian DIDs to this batch.

  Unassigned DIDs, however, can be moved to different types of owner batches.

- **More than one DID number can now be assigned to a phone line on the customer self-care portal** – This enhancement

allows a customer to assign two or more DID numbers to a single phone line without an administrator's assistance.
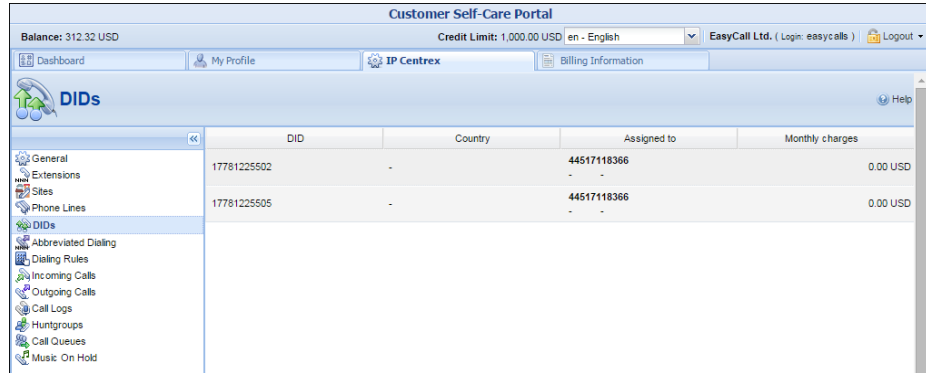
- **The retrieval code always starts with an asterisk now** – As in the past, the retrieval code follows the release prefix and is used to remove the call from its parked status. This enhancement makes the call parking feature even more user-friendly.

  The retrieval code length is taken from the **Abbreviated Number Length** field (the customer's **Abbreviated Dialing** tab) plus one digit.

  The default value is set on the Configuration Server:
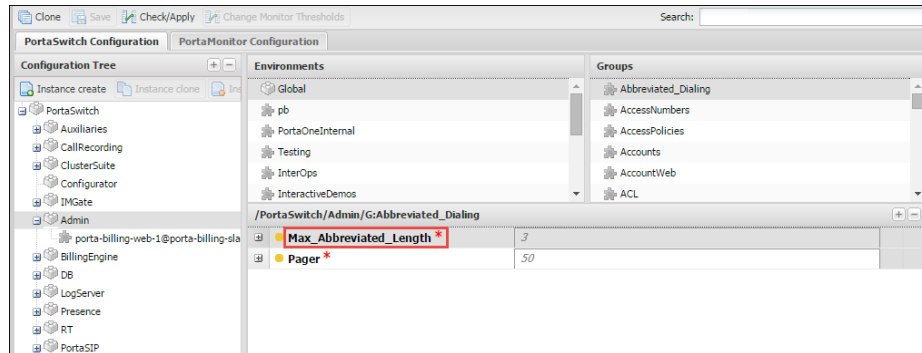
  Let's consider the following example. The administrator applies the following settings:

  > **Park Prefix** – *11
  > **Release prefix** – *22
  > **Abbreviated Number Length** – 1.

  John Doe has a conversation that needs to be parked. Therefore, he dials *11 and hears the following voice prompt: "Please dial *22*34 to retrieve the call." In this example, *34 is the randomly

generated retrieval code. John Doe goes to another phone where he dials *22*34 to release the call and continue the conversation.

- **The default value for daily and transaction allowances for CC Staff users is now zero** – When a reseller creates a **CC Staff** user (reseller's employee), by default this user is not allowed to provide either credits or refunds for end users.

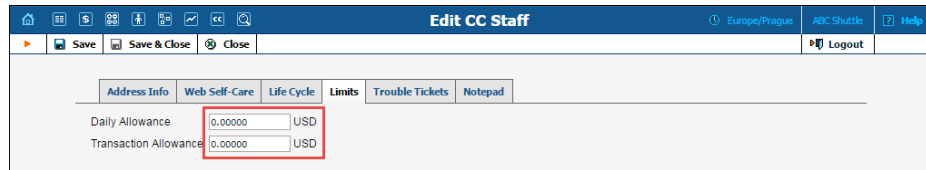 Resellers can change the default settings any time. To do this, they define daily and transaction allowances on the **Limits** tab of the **CC Staff** user page. This enhancement helps prevent potential abuse by employees and avoid money leaks.

- **All SMS templates contain up to 140 characters** – Default texts for all SMS notifications have been adjusted to fit a single SMS message. This enhancement saves money and prevents possible delivery problems that could otherwise occur with multipart SMS messages.

- **Email Upload can use more settings from rate upload templates** – The following is now considered during the email upload procedure:
  - whether rates with "effective from" date in the past should be uploaded as effective immediately;
  - whether rates with the same data must be skipped, and also the time zone.
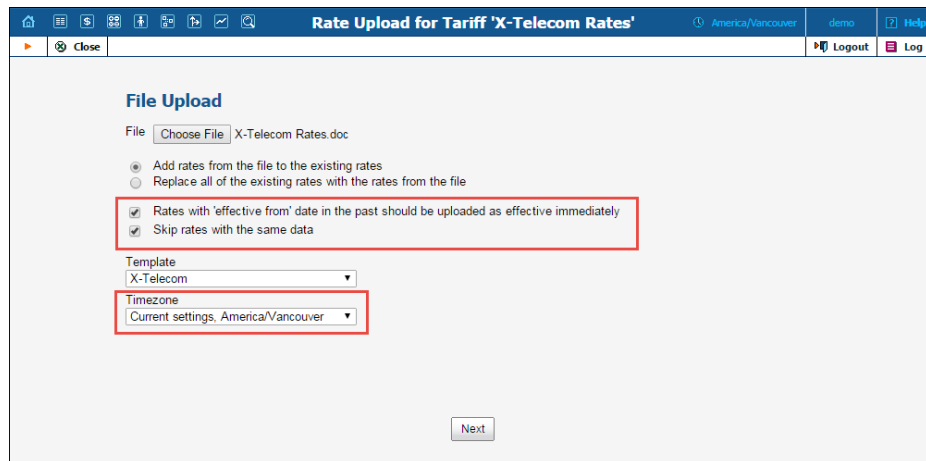
The enhancement works as follows:

1. The administrator uploads a new rate file using the **Rate Upload Wizard** and saves it as a new template.
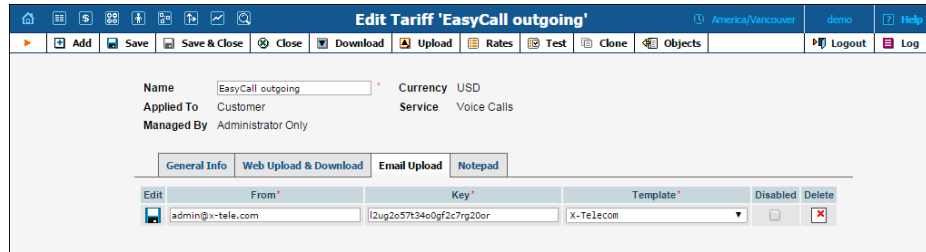
NOTE: Find the requirements for the rate file structure in the **PortaBilling® Template Guide**.

2. The administrator enables email upload from a particular email address on the tariff's **Email Upload** tab. When PortaBilling® receives a new rate file sent from this email address, the rates are updated according to the template's settings.

This enhancement simplifies and speeds up an administrator's work, especially in the case of there being many different customer and vendor rate files to manage.

- **Cost / Revenue Statistics Report Enhancement** – The ability to calculate cost / revenue statistics per customer class has been added to the Cost / Revenue Statistics report. By running this report for a specific customer class, you can estimate what impact different segments of customers have on your business.

For example, you may use this report to find out whether your corporate customers are less or more profitable than your retail ones. Once the profitable and unprofitable customer segments are identified, methods for improving profitability among the unprofitable segments and ways of retaining and strengthening the profitable segments should be considered.
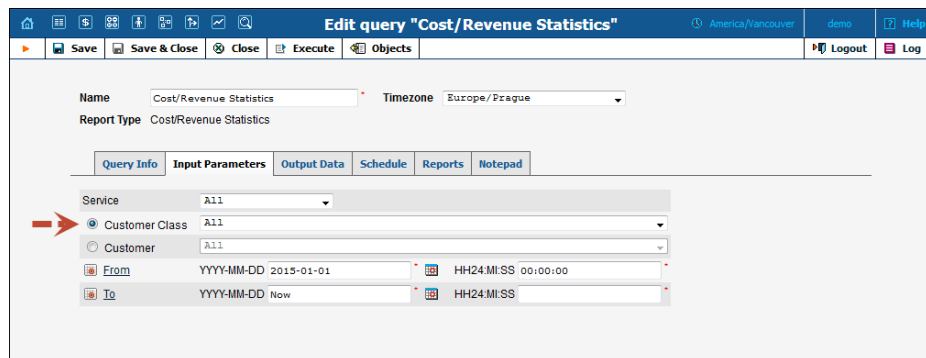
- **Applying taxes for auto-payments** – The *Taxes upon Payment* functionality is now available for auto-payment transactions. This functionality calculates and applies taxes when your prepaid customers top up their balance manually.

  Tax is calculated when a prepaid customer's balance automatically tops up as it reaches a certain amount. The tax amount is calculated based on the amount of the top-up and then added to the payment sum. Upon successful payment processing, the customer's balance is topped up by the total charged amount excluding tax.

  Please bear in mind that the *Taxes upon Payment* functionality works only for prepaid customers for which the tax rate has been defined and the **Apply taxes at the moment of the payment (prepaid Customers only)** option has been enabled.

- **Transfer by DTMF dial code is now configurable** – Starting with this release, you can customize the Transfer by DTMF dial code according to your preferences (by default, it is *66). This is done by modifying the **Dial Out within call** field in the **Dialing Rules**. The new Transfer by DTMF dial code can be specified using one of the following formats: *NN or NN.

- **Subscription plan creation for resellers** – Starting with this release, resellers may create subscription plans for their customers. With subscription plans, customers are charged recurring (e.g. monthly) fees for using the service. For example, the fee is $30 per month for an IP Centrex phone line. Resellers can include subscription plans in with customer products (both main and add-on ones).

- **Customer class creation for resellers** – Now resellers may create their own customer classes. Customer classes allow resellers to define a set of parameters to be shared among a certain category of customers. For example, a reseller can create two separate classes – one for their retail customers and the other for their business customers, plus define the relevant parameters for each class. After that, the reseller only needs to assign the required customer class to all customers of a given category to ensure that all of them have the same parameters (such as grace period, invoice template, taxation, notification list, etc.).

  Using customer classes significantly speeds up the process of configuring customers for resellers plus saves time when updating customer parameters (e.g. invoice terms) and has the capability to filter report data by customer class (to estimate the impact that different customer categories have on their business).

- **Multiple selection of Tax Exemption is now easier** – This enhancement refers to the **SureTax** taxation method that can be

defined either within a customer class or for an individual customer.

With this release, no tax exemptions are applied while the **Tax Exemption** check box is unselected. To apply one or more tax exemptions, do the following:

1. Select the **Tax Exemption** check box. Two list boxes appear.
2. Select required items from the **Available** list box containing service categories.

NOTE: Hold down the **Ctrl** key to select more than one tax exemption.

3. Using the **Include->** button, move the chosen items to the **Included** list box.
4. Save the changes.

Now taxes related to service categories from the **Available** list box will not be added to the customer's taxes.
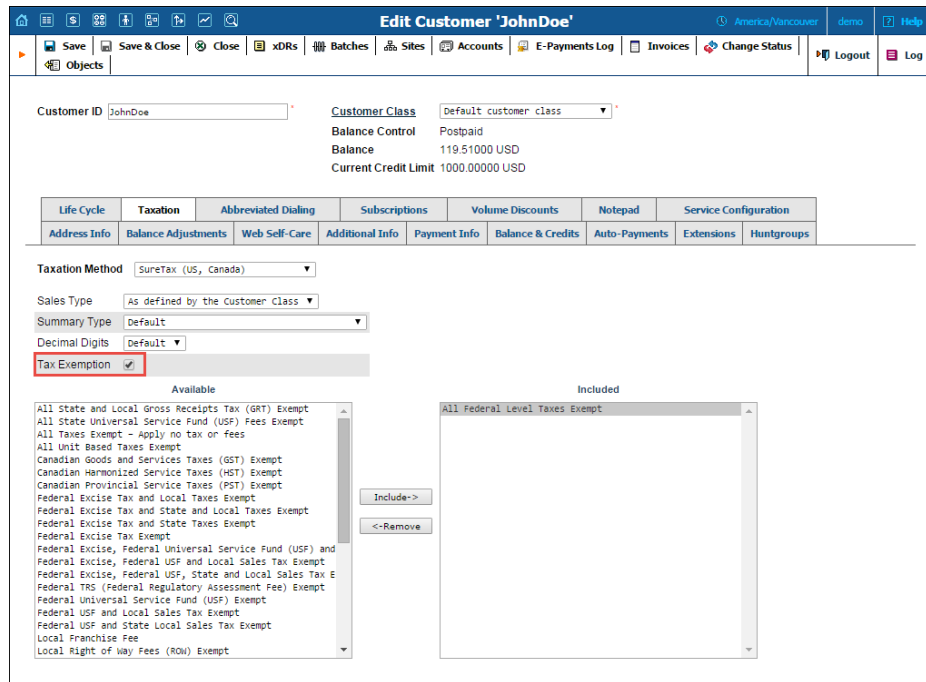
- **GST (Malaysia) taxation plug-in** – The goods and services tax (GST) was implemented in Malaysia in April 2015. To help our Malaysian clients meet governmental requirements on handling this tax, we introduce a new taxation plug-in.

  The plug-in provides the option to specify the appropriate tax transaction code for each subscription and manual transaction,

takes into account tax relief certificate information, calculates tax for different service subtypes individually. This ensures that the proper tax rate is applied in each case and that the GST records can be displayed as being connected to particular services and goods charges on invoices and in external reports.

For more information please see the *Goods and Services Taxation Plug-in for Malaysia* paragraph in the **PortaBilling® Administrator Guide**.

- **Attachments to API requests in JSON format** – PortaBilling® API now allows to include attachments in JSON API requests in the same way as in XML/SOAP API.

Web Interface Changes

- **New Balance & Credits tab on the Customer info page** – The setup of warning thresholds and temporary credit limit increases for customers has been moved to the new **Balance & Credits** tab.

- **Permitted SIP Proxies is now a service feature** – The **Permitted SIP Proxies** configuration tab where you can define to which external SIP proxies (for example, a list of customers' IP PBX) a customer can forward calls is now accessible as the **User-managed SIP addresses** service feature in the **Incoming Calls** section of **Voice Calls** services.

- **PBX feature access codes configuration is moved to a dialing rule** – The **Call Park**, **Call Release**, **Group Pickup**, **Hide CLI**, **Show CLI** codes can now be configured only as a part a dialing rule. For an account / customer / product they are displayed as read-only.

Important Upgrade Notes

- **We no longer offer support of feature access codes configuration for accounts**.
  - If a feature access code is defined for a customer and this customer's account, then the feature access codes assigned to the customer will be used after the upgrade.
  - If a feature access code isn't defined for a customer, and several of this customer's accounts use different access codes for this same feature, then the code most recently configured is the one that will be used after the upgrade.

- **Charges based on usage minimum are handled differently** – previously end users were charged a fixed fine (in addition to regular service charges) if their service usage was below a certain minimum.

  Starting with this release, instead of this fine, ITSPs define a mandatory minimum which ensures that customers' service charges are always equal to or higher than a predefined amount. For more detailed information, please refer to the **Mandatory Minimum for Service Usage** section in this document.