

# PortaSwitch

## New Features Guide

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61

MAINTENANCE  
RELEASE



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**PortaSwitch® New Features Guide, March 2017**  
**Maintenance Release 61**  
**V1.61.07**

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## Preface

PortaSwitch® Maintenance Release 61 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/](http://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`.



**Exclamation mark** draws your attention to important actions that must be taken for proper configuration.

**NOTE:** Notes contain additional information to supplement or accentuate important points in the text.



**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.

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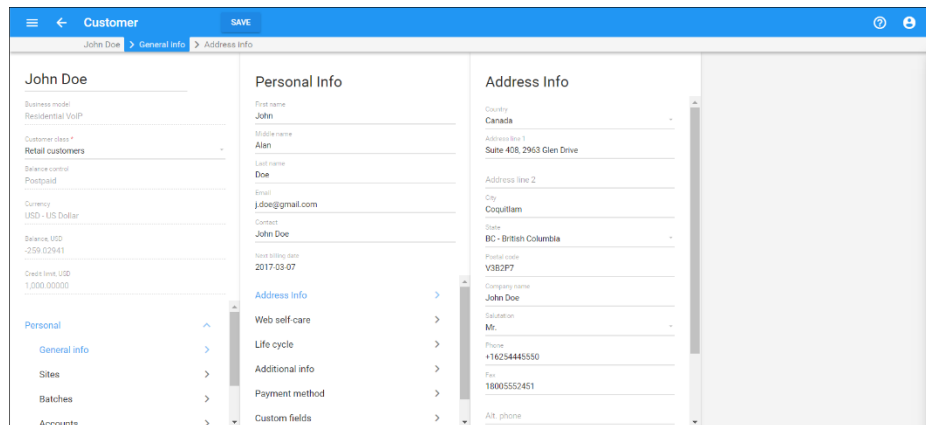
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## New PortaBilling® Web Interface

PortaOne team is now working on the new web interface for PortaBilling® administrators. It has a new architecture, a fresh look and serves to simplify administration and improve usability.

The key peculiarities of the new web interface are:

- **New logic in information representation** – Now information is regrouped into several main sections, each of them containing a subset of configuration options. For example, when creating a customer, the administrator now operates with the following main sections: General, Personal, Finances and Services.



For convenience, the web interface consists of embedded panels. Every panel contains a set of options applicable to one of these main sections. An administrator can always return to the previous panel without closing the current one – the layout adjusts automatically.

- **Browsing history management**– The new web interface now uses the HTML5 History API. This allows saving your browsing history and enables you to easily navigate backwards and forwards between panels using the browser buttons.
- **Google material design usage** – The general web interface architecture follows the Google material design with adjustments based on system specifics.

This release introduces new design for products, customers and accounts. To preview it, specify the `[Web]ShowNewUILinks=1` option on the Configuration server.

We encourage you to provide feedback about your experience with the new web interface. It will help us to further improve its design and usability.

## Applying Taxes to Auto-Payments

Very often, customers prefer to make regular automatic payments so that their service is uninterrupted and they do not have to bother with invoices. When customers use services on a prepaid basis, their taxes are calculated at the time of purchase, i.e. when they top up their available funds.

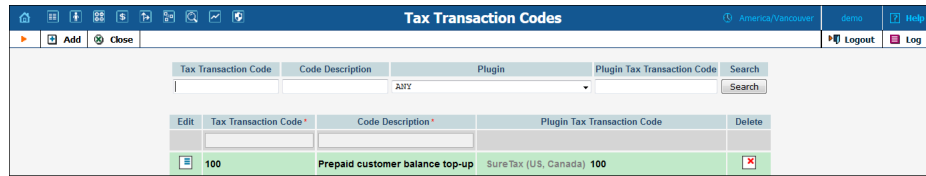
Typically, taxes for customers in the USA and Canada are calculated by external taxation companies such as SureTax and Avalara. With this release, when prepaid customers automatically top-up their available funds, PortaBilling® can properly calculate taxes and add them to the total sum of amount charged.

A payment can cover multiple services and / or destinations which might be taxed differently. Therefore, it is necessary for an ITSP to estimate the percentage of services their customers will use (e.g. for local, long distance and international calls and domestic SMSs) to know which taxes to apply. To do that, ITSPs contact the taxation company (e.g. SureTax) and describe their service needs.

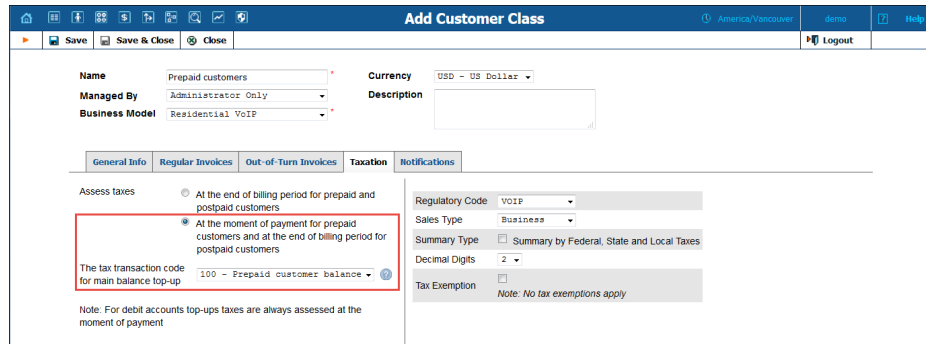
Based on that data, SureTax creates a taxation bundle for the ITSP and provides a bundle ID (e.g. 100). This bundle ID is then used as a tax transaction code for a main balance top-up in PortaBilling®.

To configure PortaBilling® to calculate and add tax amounts to prepaid customers' auto-payments, an administrator must map the bundle ID received from the taxation company to the internal tax transaction code.





Then the administrator creates a customer class and specifies when to assess taxes, defines the tax transaction code and assigns that customer class to prepaid customers.



For example, let's say your taxation company is SureTax and your prepaid customer, "ABC," wants to automatically make a payment of \$90.00 each time their available funds drop to \$10.00.

When the auto-payment is initiated, PortaBilling® sends a request to SureTax with the tax transaction code and the amount to be paid (\$90). SureTax calculates the taxes and PortaBilling® receives, e.g. \$6.3 in taxes from SureTax and then adds it to the payment amount. The sum of \$96.3 is then withdrawn from the customer's credit card.

When the transaction is processed, PortaBilling® creates two xDRs: one with the amount charged (\$96.3) and the other with the tax amount applied (\$6.3).

**NOTE:** The number of xDRs may depend on the number of taxes applied.

The administrator can also override the existing taxation parameters for an individual customer on the **Edit Customer** page.

The screenshot shows the 'Edit Customer' page for 'Richard Roe'. The 'Invoices & Taxation' tab is selected. In the 'Assess taxes' section, the radio button for 'At the moment of payment' is selected. Below it, the dropdown for 'The tax transaction code for main balance top-up' is set to '100 - Prepaid customer balance top-up'. Other fields include 'Tax ID', 'Taxation plugin' (SureTax), and 'Sales Type' (Business).

**NOTE:** If you override the taxation parameters for a customer, you must define the main balance top-up tax transaction code.

This feature allows prepaid customers and their accounts to automatically top up their available funds. Moreover, it gives ITSPs the option to inform their prepaid customers about tax amounts charged / paid when auto-payment transactions occur.

## New Version of Linux

PortaSwitch® Maintenance Release 61 utilizes **Oracle Enterprise Linux version 7.3**. Oracle Enterprise Linux version 7.3 includes a new version of kernel and an updated collection of applications that offer the following benefits:

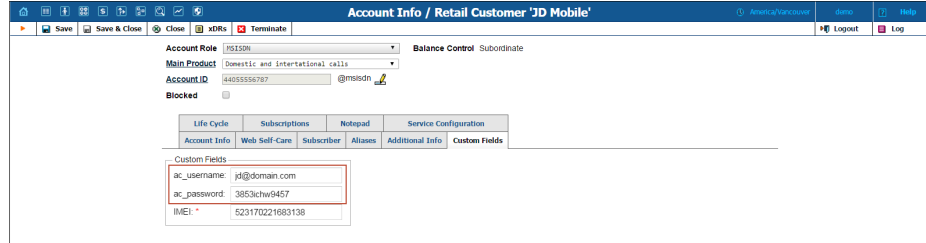
- Faster performance.
- Even better security.
- Better support for modern hardware.
- Higher reliability.

## Modified Provisioning of AudioCodes Mobile Application for iOS Devices

Using AudioCodes mobile application, service providers can offer a wide range of services to users of different mobile phones. However, the application configuration may differ, depending on the particular phone's operating system (iOS or Android). Thus, AudioCodes requires that for iOS devices, additional parameters such as *ac\_username* and *ac\_password* must be provisioned within the account configuration.



With this release, PortaBilling® meets these requirements and can provision these parameters for the AudioCodes mobile application. To do this, an administrator configures the *ac\_username* and *ac\_password* parameters for an account as custom fields.



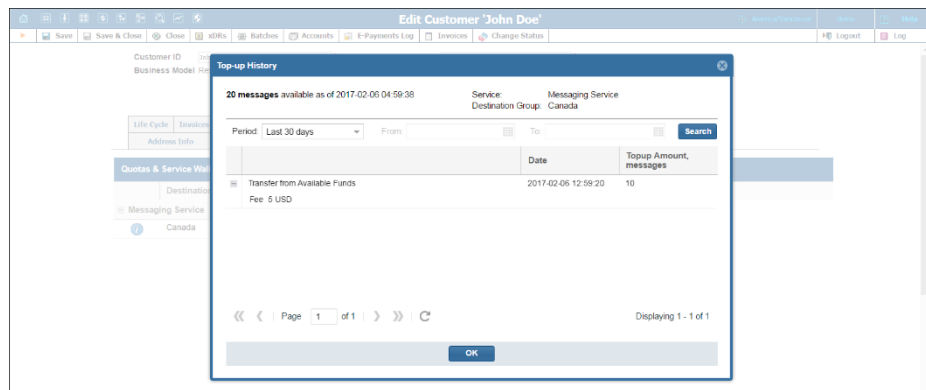
PortaBilling® then passes their values to the AudioCodes CMMS server in the provisioning request. This ensures the successful operation of the application on iOS devices and also enables service providers to support their customers’ consumer behaviors.

## Enhanced Service Wallet Top-Up History

With this release, administrators and customers can track their service wallets’ top-up history. In the **Top-Up History** dialog window, they can filter their top-up transactions for a predefined time period or specify their own time period. Each top-up transaction contains the following information:

- The fund source (a credit, a top-up from available funds or by credit card);
- The date it was made;
- The top-up amount.

Additionally, administrators and customers can see fee amounts, taxes applied and the total sum of payment.



This enhancement optimizes customer balance management and facilitates accounting and reporting.

## Other Features and Enhancements

- **Improved Accounts Receivable with Aging report** – This report shows the sum of unpaid customer invoices (accounts receivable) broken down by date ranges of 0-30, 31-60, 61-90 and >90 days, as of the moment of report generation.

Now service providers can obtain accounts receivable figures as of any date in the past.

For example, if a service provider wants to know what their accounts receivable was two months ago, they select the appropriate **Date Cut** and set the **Show the invoices as they were on Date Cut** option to **Yes**. The report shows information about the accounts receivable as of the chosen **Date Cut**. All activities that occur in the system after that date are ignored.

The screenshot displays the configuration page for the 'Accounts Receivable with Aging' report. At the top, there is a navigation bar with options like 'Save', 'Save & Close', 'Close', 'Execute', and 'Clone'. Below this, the report name is 'Accounts Receivable with Aging' and the timezone is 'Europe/Prague'. The 'Report Type' is also 'Accounts Receivable with Aging'. A tabbed interface shows 'Input Parameters' selected. The parameters include:
 

- Date Cut**: A date field set to '2017-02-10'.
- Customer Class**: A dropdown menu set to 'EasyCall'.
- Payment Method**: A dropdown menu set to 'All'.
- Customer Status**: A dropdown menu set to 'All'.
- Show the invoices as they were on Date Cut**: A dropdown menu set to 'yes'.

 Red arrows point to the 'Date Cut' and 'Show the invoices as they were on Date Cut' fields.

This allows service providers to compare their current and past accounts receivable more quickly and easily (for example, to evaluate payment collection strategies and make decisions concerning future improvement).

- **Posting and posted dates for e-commerce payments** – With this release, an administrator can see when a payment is sent to and confirmed by the payment processor on the customer xDR history page.

When an e-commerce payment is initiated, PortaBilling® sends a request to the payment processor. The payment processor verifies the credit card that is used for the transaction, processes the transaction and then sends confirmation to PortaBilling® that the transaction was successful.

Depending on the type of payment processor being used, both the time when PortaBilling® sends the request and receives transaction confirmation will differ. Thus, two separate events are performed within a single e-commerce payment transaction and are reflected in an xDR record:

- **Posted date** – is the date upon which a customer makes a credit card payment and PortaBilling® sends a request to the payment processor.
- **Posting date** – is the date upon which PortaBilling® receives the transaction confirmation from the payment system and creates an xDR record. Thus, the posting date coincides with the date of the xDR record.

In most cases, the posting date comes after the posted one.

Customer		Richard Roe	
From Date		2017-02-22 01:29:09	
To Date		2017-02-23 01:29:12	
Show xDRs For		Customer and Credit Accounts	
Service (s)		All	

Total Transactions	1
Credits	0.00000 USD
Charges	0.00000 USD
Recurring Charges	0.00000 USD
Recurring Credits	0.00000 USD
Usage Charges	0.00000 USD
Usage Credits	0.00000 USD
Payments	-158.00000 USD
Refunds	0.00000 USD
Taxes	0.00000 USD
<b>Total</b>	<b>-158.00000 USD</b>

Payments							
User	Account	Description	Comment	Date/Time	Amount, USD	Hidden	Revert
		Payment/Refund transaction	E-Commerce Payment	2017-02-22 04:49:11	-158.00000		
<b>Subtotal</b>							

Sometimes postpaid customers prefer to pay their invoices automatically. Thus, when a billing period ends, PortaBilling® calculates their xDRs and generates their invoices. The system charges the customers’ credit cards to pay their invoices.

For example: On February 3, PortaBilling® calculates the statistics for your postpaid customer EasyCall Ltd. for January. Since this customer pays automatically by credit card for the invoices, PortaBilling® initiates the payment for \$58.

Upon receiving a response from the payment system, PortaBilling® creates an xDR. However, payment is only included in an invoice if it is made within the current billing period. Therefore, the xDR record must be created at least 1 (one) second before the billing period closes.

To include the payment for the January billing period, PortaBilling® changes the date of the payment and adds a record

to the xDR browser dated 31.01.2017 23:59:59. Then, the administrator sees the following data:

Payments							
User	Account	Description	Comment	Date/Time	Amount, USD	Hidden	Revert
		Payment/Refund transaction	E-Commerce Payment	31.01.2017 23:59:59	- 58.00000		
<b>Subtotal</b>				Posting Date: 31.01.2017 23:59:59	Posted Date: 03.02.2017 14:51:34		

- **Posting date:** 31.01.2017 23:59:59 (the date when the payment is added to the system).
- **Posted date:** 03.02.2017 14:51:34 (the date when the payment is initiated by the system).

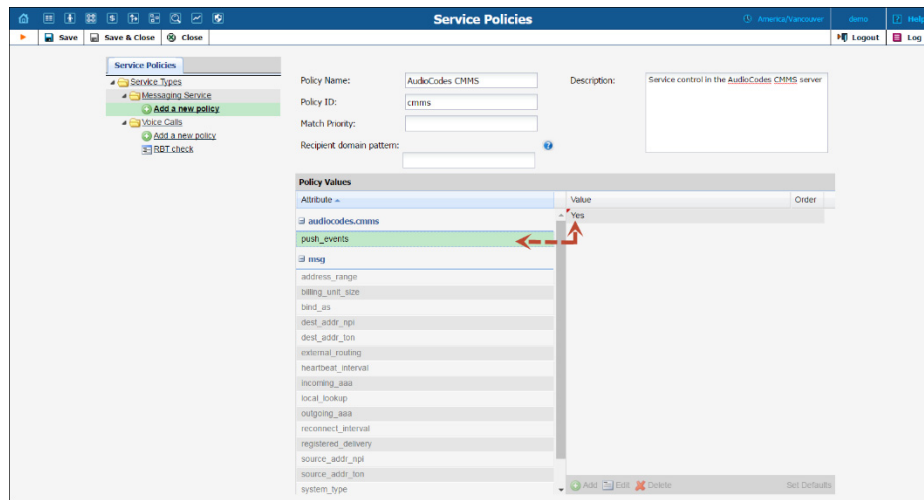
In this case, the posting date comes before the posted one.

This enhancement provides administrators with more detailed information about their customer’s e-commerce payments and facilitates their reporting regarding these payments.

- **Enhanced messaging service management in AudioCodes CMMS** – Administrators can now manage the messaging services for accounts provisioned in AudioCodes by using service policies. Thus, with the **push\_events** option enabled within a service policy, PortaBilling® notifies the AudioCodes CMMS server about a user’s service wallet depletion and suspends their service. Similarly, as soon as a user tops up their service wallet, service is resumed.

To configure messaging service management within the AudioCodes CMMS server, do the following:

1. Configure a service policy for messaging services and enable the **push\_events** option within.



- Assign a service policy to the product. Note that service policies directly defined for accounts are not considered.

The screenshot shows the 'Edit Product' window for 'SMS Services'. The 'Messaging Service' tab is selected, and the 'Service Policy' dropdown is set to 'AudioCodes CMMS'. The 'Feature Status' is 'Enabled', and 'Feature can be enabled/disabled by' is checked for 'Administrators'. The 'SMS/MMS Routing Data' section shows 'Feature Status' as 'Disabled', 'Feature can be enabled/disabled by' checked for 'Administrators', and 'Update NetNumber Database' set to 'No'.

Of course, a user must have a service wallet for the particular messaging service assigned.

This enhancement enables administrators to distinguish between notifications to AudioCodes and those to users. This in turn optimizes both service configuration and management and improves overall user experience.

- Fine-tune incoming traffic processing using service policies** – The new service policy attribute `no_voice_rejects` defines how PortaSIP® responds to a calling party in case of an unauthorized incoming call (e.g. the party called does not exist).

When enabled within the dynamic service policy, PortaSIP® operates as follows, depending upon the option value:

- If set to *Yes*, PortaSIP® immediately sends a SIP response message (e.g. 404 Not found for non-existent called party), without playing a voice prompt.
- If set to *No*, PortaSIP® plays the voice prompt and then sends a SIP response message (500 Patience timeout in our example).

The introduction of this service policy attribute enables service providers to effectively interact both with wholesale and residential customers.

- Control codec lists for music on hold using service policies** – When one party (e.g. the caller) is put on hold during a call, their UAs re-negotiate the session. Depending on the UA

configuration, a different codec from the one initially negotiated for media streaming may be requested.

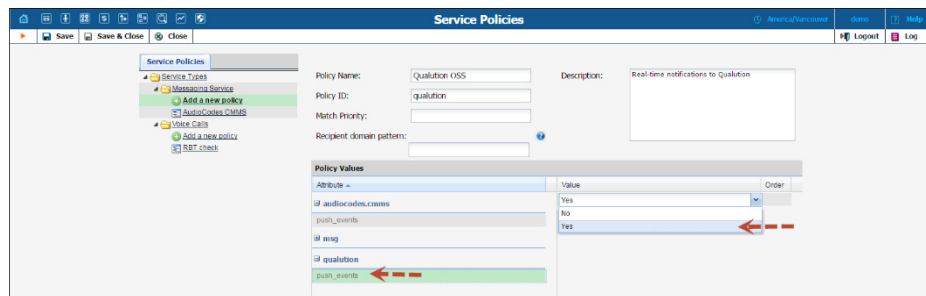
To prevent possible media issues (e.g. the caller hears no music while on hold) with these UAs, you can now instruct PortaSIP® to adjust the codec list for the caller and play the music on hold using the requested codec. To do this, enable the **first\_codec\_for\_moh** attribute within the service policy and then assign it to the caller.

The same applies to the callee if they are put on hold.

This enhancement allows you to refine service configurations to meet customer demands as well as curb media streaming issues.

- Enhanced management of users’ volume discount plan usage via Qualution OSS** – Now MVNOs that utilize Qualution as the OSS in their network infrastructure can use service policies to notify users about their volume discount plan usage in real-time.

To do this, enable the **push\_events** option within the service policy and assign it to the product. Of course, access to Qualution API for PortaBilling® must also be configured on the Configuration server.



Then, as soon as a user’s discount changes (e.g. they exceed their quota), PortaBilling® requests Qualution to notify the user.

To notify a user before they reach the discount threshold, configure the corresponding notification within the volume discount plan.

This enhancement facilitates service management for administrators.

- Porter enhancements** – This release introduces flexibility when transferring resellers and their customer data via Porter. Now you

can transfer a reseller and all of their customers or transfer only some customers of a reseller.

When the administrator transfers some customers of a particular reseller, they are marked as **Exported** within the source system and created under the same reseller in the target system. Thus, the same reseller entity will exist in both source and target systems.

This case is mainly used for evaluation purposes, i.e. to verify new features and service flow under new conditions.

Another enhancement is the ability to transfer DID numbers from a source system to a target system. Thus, you can now transfer both DID pools and numbers assigned to either customers or resellers, preserving their pricing parameters.

These enhancements facilitate the transfer of data and reduce administrative load when preparing a source system.

- **Enhanced account creation** – Now, when an administrator creates an account, PortaBilling® suggests the most suitable account role for it, depending on the customer business model.

For example, you provide IP Centrex and mobile services. To simplify customer management and differentiate among customers based on their service usage, an administrator creates two customer classes that define a respective business model: Hosted IP PBX and Mobile.

The hosted IP PBX business model can assume the use of either the phone line or the auto attendant account role, so that when the administrator creates an account for a customer with this type of business model, PortaBilling® will suggest both of them to choose from.

The mobile business model assumes the use of an MSISDN account role only. Therefore, PortaBilling® suggests it by default. This enhancement simplifies the account creation process for the administrator and makes it more intuitive.

- **Validation of measured services configuration for callshop resellers** – Callshop services does not signify measured resource consumption calculations. Therefore, PortaBilling® simply ignores the metrics for callshop resellers if they are defined within their customer class. This reduces the administrative load and permits administrators and top-level resellers to utilize the same customer class for callshop resellers and subresellers if other parameters apply to both of them.
- **Current date display in the Balance Adjustment wizard** – Beginning with this release, PortaBilling® automatically presets the current date in the **Balance Adjustment** wizard. Thus, the only thing left for an administrator to do is input new data. There is still the option to select a date from the past, by using the calendar or by typing it in manually.

The screenshot shows the 'Edit Customer 'Smart Call'' interface. The 'Balance Adjustment' wizard is open, displaying the following fields:

- Action: Manual charge
- Amount: 100 USD
- Service: Credits / Adjustments
- Date: 2017-01-30 (highlighted with a red box)
- Include into Out-of-Turn Invoice:
- Visible Comment: Manual charge
- Internal Comment: (empty)

Buttons at the bottom: Back, Done, Cancel.

This enhancement makes the balance adjustment wizard more user-friendly.

- **Service codes tab for custom dialing rules** – Now, the **Service Codes** tab has been added to the custom dialing rules. This makes it easier to configure a dial plan and it allows an administrator to configure familiar service codes for their users. Therefore, the migration process from legacy systems has become simplified.



**Dialing Rules Wizard**

Name: Brazil

Description:

Type:

- PBX
- Residential
- Custom
- North America
- International

Allow End-User to edit Dialing Rules:

**Dialing Rules**

Clear Reset Load Dialing Rule

**Translation Rule Service Codes**

Service Codes	
Park Prefix	*55
Release Prefix	*71
Group Pickup Prefix	*40
Hide CLI Prefix	*67
Show CLI Prefix	
Paging/Intercom Prefix	*33
Transfer the forwarded call	*66
Bypass Dial Plan	*3164*
VoiceMail	*98

**Check for yourself**

Enter the number as dialed by Customer

Test

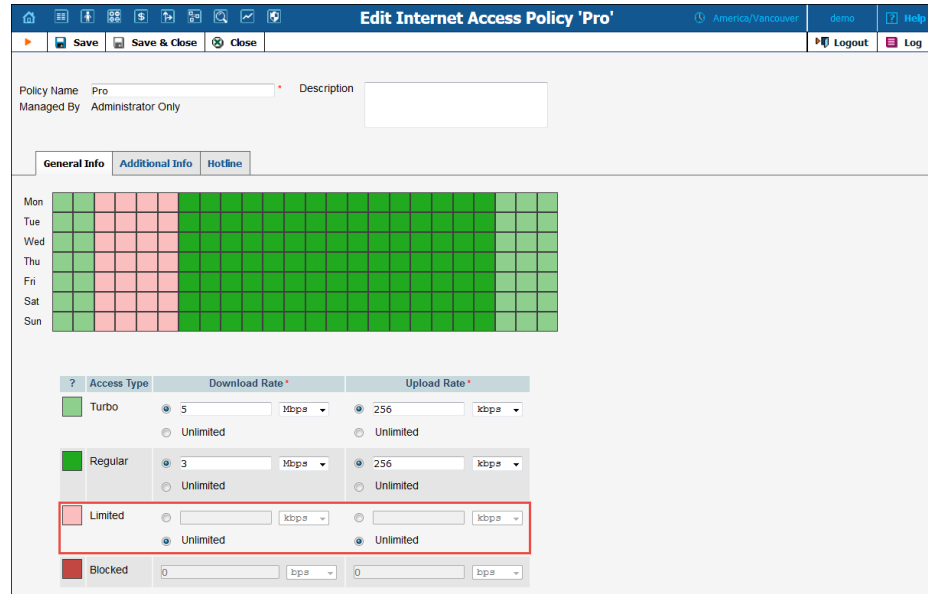
Enter phone number in E.164 format

Test

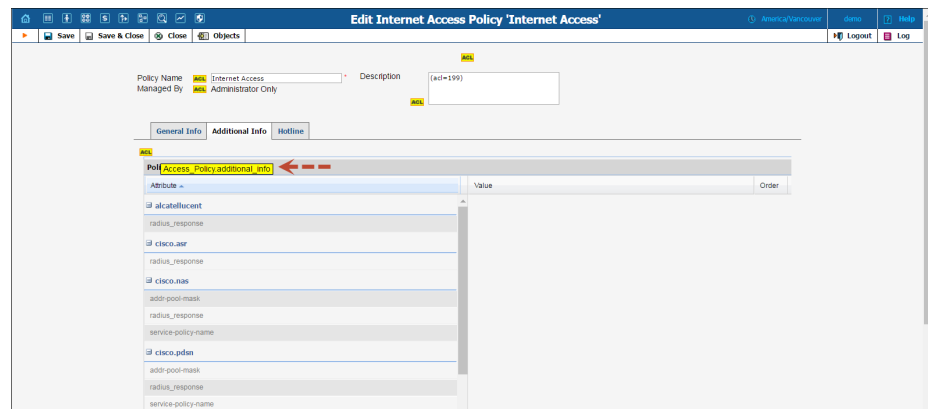
- **Serbian version of self-care interfaces** – We have now added the Serbian language to the customer and account self-care interfaces. Translations have been provided and will be further maintained by the PortaOne customer community. We encourage PortaOne customers to make translations into other languages as we have witnessed that this kind of localization approach is very effective.

## Web Interface Changes

- **Set unlimited speed rate for Internet access** – With this release, the **Unlimited** button has been added for any access type download and upload speed rate. This gives an administrator more flexibility when configuring Internet access policies.

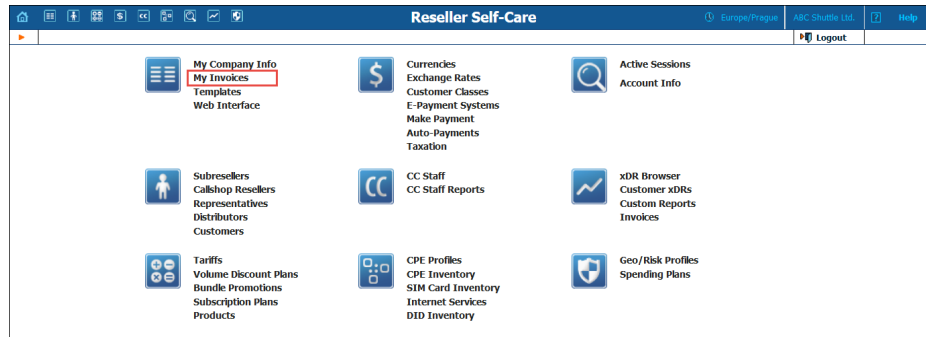


- **Control the Additional Info tab visibility on the Internet Services page via access levels.**



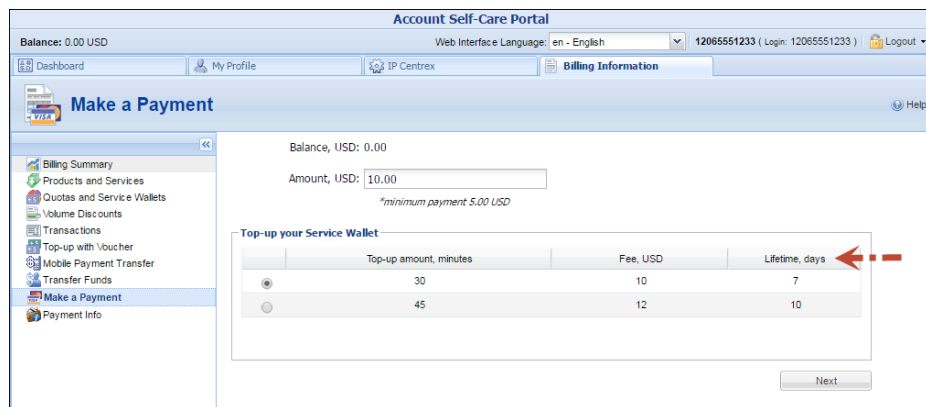
In so doing, you can fine-tune the Internet service configuration access for different PortaBilling® users.

- **Enhanced access to their own invoices for resellers** – With this release, resellers can access their own invoices from the **Main Menu** of their self-care interface.



This enhancement simplifies the resellers’ navigation of their self-care interface and therefore saves them time.

- **Service wallet lifetime information during top-up** – Now when end users top up their service wallets via the customer / account self-care interfaces, they can see information about their service wallets’ lifetime (i.e. the period of time during which they can use the service).



This makes the service wallet top-up procedure more convenient and user-friendly.

- **Enhanced tariff upload template creation** – Starting now, a name for a tariff upload template is automatically filled in with the tariff name. An administrator can easily change it if necessary.



This simplifies the rate upload process and makes the web interface more user-friendly.

## Important Upgrade Notes

- **Consolidation of two user ACLs** – With this release, the **root** and **Root** user ACLs have been consolidated into one **Root** user ACL. The **Root** user ACL preserves all of the properties of the **root** user ACL – it grants users delete, insert, read and update permissions to all PortaBilling® objects and their attributes. When an administrator creates a new billing environment, the system assigns the **Root** user ACL to the initial user.

For backward compatibility, all users with the **root** user ACL are assigned the **Root** user ACL after a software upgrade.

- **Obsolete definition of \*98 rate in tariffs for access to voicemail** – Typically, a user dials \*98 to access their own voicemail and the administrator may have defined the rate for this destination in their tariff.

With this release, the rate for \*98 is obsolete since PortaBilling® now authorizes all calls made to voicemail using the UMLISTEN rate pattern. Therefore, use the UMLISTEN (or general UM) destination for calls to voicemail when configuring new customer tariffs. For existing tariffs with obsolete \*98 rates, PortaBilling® will automatically add rates for the UMLISTEN destination during the next software upgrade.

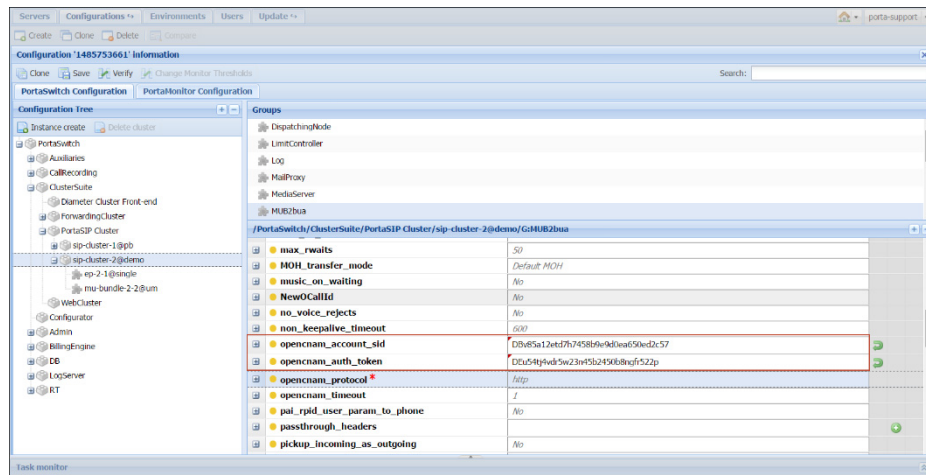
- **Cloning volume discount plans with tax transaction codes** – Both the administrator and every reseller have their own tax transaction codes. These codes are unique and must be defined manually each time a new volume discount plan is created. With this release, the tax transaction codes are preserved when cloning volume discount plans for the same entity (e.g. when an admin clones a volume discount plan for their own use). Consequently, once the volume discount plan owner is changed, a notification appears informing that the tax transaction code will not be cloned and must be defined later.

For example, the administrator clones the discount for reseller A and leaves it to be managed by this reseller. In this case, the tax transaction code is cloned.

If the administrator clones reseller A’s discount and defines reseller B as its owner, then reseller B needs to manually define the appropriate tax transaction code.

This enhancement saves time and simplifies management for resellers by saving all volume discount plan configurations.

- **Caller ID (CNAM) lookup service validation** – Beginning with this release, PortaSwitch® sends a CNAM request for an account only when the CNAM lookup service is configured on the Configuration server.



This prevents misconfiguration and ensures proper service provisioning. It is recommended that administrators who used to obtain caller IDs for accounts using trial accounts recheck their CNAM lookup service configurations.