



PortaSwitch



New Features Guide

Maintenance
Release

44



Documentation

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Preface

PortaSwitch® Maintenance Release **44** is the next leap-forward release, consistent with our “fast releases, precisely on time” ideology introduced in 2012.

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**



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.



Tips provide information that might help you solve a problem.

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Bulk Discounts for Subscriptions Charged In Advance

To improve your cash flow, you can now encourage your customers to pay monies in advance by providing them with bulk discounts for subscriptions that are charged in advance (e.g. “Pre-pay for 6 months and get 20% off for Internet” or “Pay for 12 months and save \$100 for IPTV!”).

An administrator can set the number of billing periods and choose a discount value, which will either be a percentage (e.g. 20%), or a fixed sum (e.g. \$20).

The screenshot shows the 'Edit Subscription Plan' interface for 'IPTV Basic'. It includes fields for 'Subscription Plan Name' and 'Currency' (USD). Below are tabs for 'General Info', 'Standard Periodic Fee', 'Promotional Periods', 'Multi-Month Discounts', and 'Taxation Info'. The 'Multi-Month Discounts' section has radio buttons for 'Percentage' and 'Fixed Amount'. A table lists existing discounts:

Edit	months	Standard Fee, USD / months	Discount, %	Discount Fee, USD / months	Delete
	6	119.94 USD / 6 months	10	107.946 USD / 6 months	X
	12	239.88 USD / 12 months	20	191.904 USD / 12 months	X

The screenshot shows the 'Edit Customer' interface for 'John Doe'. It includes fields for 'Customer ID' and 'Customer Class'. Below are tabs for 'Life Cycle', 'Taxation', 'Abbreviated Dialing', 'Subscriptions', 'Volume Discounts', 'Notepad', 'Service Configuration', and 'Permitted SIP Proxies'. The 'Subscriptions' section shows a table for assigning subscriptions to the customer:

Edit	Subscription	Current Fee	Next Fee	Discount Rate, %	Activation Date YYYY-MM-DD Start Date YYYY-MM-DD	Finish Date YYYY-MM-DD	Billed To YYYY-MM-DD	Subscription Plan Name visible to End User	Close	Delete
	IPTV Basic	191.904 U			immediately			IPTV Basic		X
		107.946 USD / 6 months								
		191.904 USD / 12 months								

Then when assigning a subscription to a customer or an account, a bulk discount can be selected.

Consider the following example:

In October 2014 customer John Doe signs up for the IPTV service with a \$19.99 / monthly fee charged in advance. He has three options for paying for the service:

1. Standard billing (\$19.99 / month);
2. 10% discount for 6 months ($\$19.99 \times 6 - 10\% = \$119.94 - \$11.99 = \107.95);
3. 20% discount for 12 months ($\$19.99 \times 12 - 20\% = \$239.88 - \$47.98 = \191.90).

John Doe chooses the 12 month payment method so he is charged \$191.90, and saves \$47.98 (i.e. an xDR with this sum is created and inserted into the database). These charges are then reflected in his October invoice.

Moreover, he is not bothered with monthly payments until the end of the prepaid period (his invoices for the next 11 months will not include subscription charges since they have already been paid). The next subscription charge will occur in 12 months' time (i.e. in October 2015.)

Thus, customers have the option to choose how to pay for their services. When paying months in advance, they receive a discount on the service and, as a result, save money.

ITSPs in turn improve their cash-flow, charging their customers for several billing periods at once and receiving large sums in advance payment.

Note: In case of early closure of the subscription charged in advance, a refund will be issued for the "unused" subscription time not later than the day after the subscription closes.

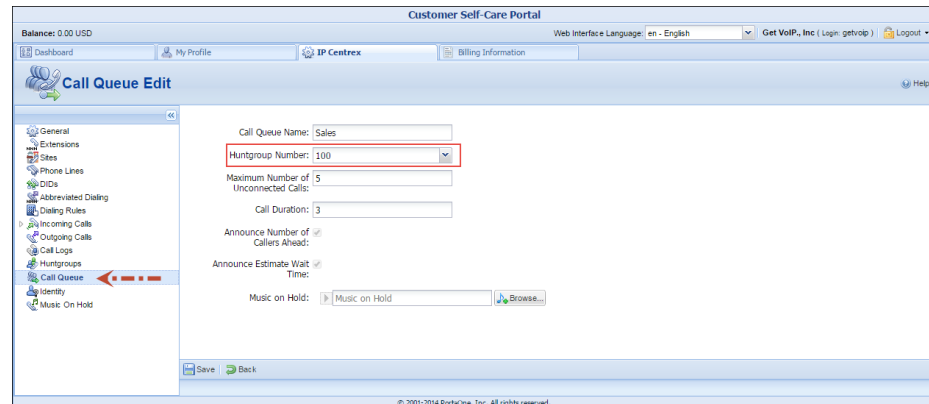
Call Queue Configuration on the Self-care Interface

PortaSwitch® now allows your customers to easily configure and edit Call Queues on their Self-care interface.

Previously, a call queue had to be configured for an account. Now the whole Call Queue configuration is performed at the customer level (on the **IP Centrex** tab of the Customer Self-care interface).

When creating a new call queue, a customer will need to select a huntgroup number (i.e. a common dialing code for multiple extensions).

When a call arrives at the call queue, it is transferred to the corresponding huntgroup.



Consider the following example:

A broker company receives a lot of calls from its clients. To retain all incoming calls *and* give full attention to all their clients, the company's administrator creates the call queue "Sales" and assigns it to the Sales department.

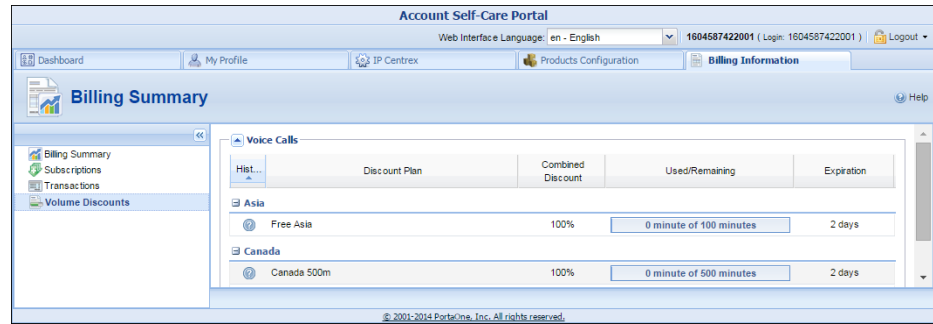
So, when a client reaches the company and is transferred to the "Sales" department, he is placed on hold and waits for an agent to become available and accept the call.

Thus, corporate customers can easily create and configure call queues in a single location with the help of several mouse clicks and receive sophisticated call queue functionality.

Extended Information about Volume Discount Plans

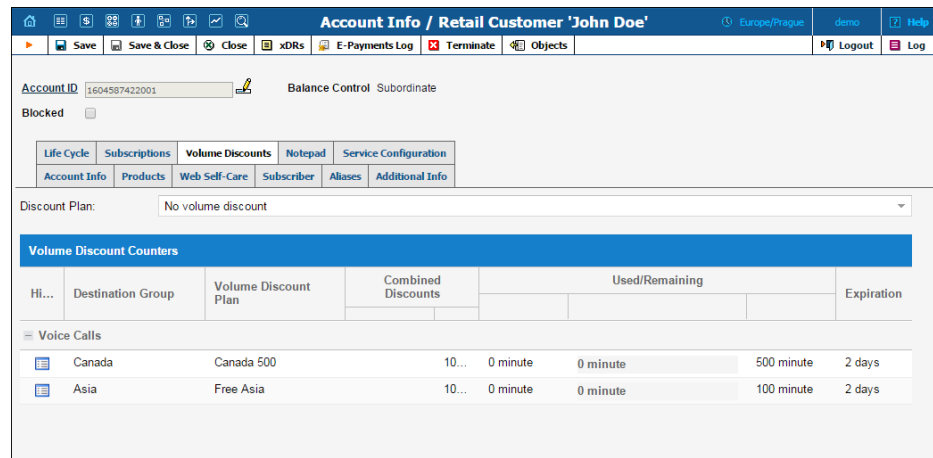
When there are several discounts assigned to a user's account, the user will naturally want to know the total discount he / she will receive when making a call or consuming traffic, and what volume of service is still available with a discount.

Users can now obtain this information at a glance via their self-care interface. A brief overview of assigned discount plans is available on the **Dashboard** tab, and extended information is shown in the **Volume Discounts** section of the **Billing Information** tab.



All applicable discount plans are grouped per Service type (e.g. Voice calls, Internet Access, etc.) and then per Destination Group (e.g. Canada.)

The History icon summons a popup window that allows users to see a discount plan status (Consumed, Active or Not Yet Active), its history and how it is combined with other applicable discount plans.



Of course, this information is also available for ITSPs via the admin web-interface.

Consider the following example:

Customer John Doe buys two products, one of which provides 100 free minutes to Asia and another which provides 500 free minutes to Canada.

Therefore, the list of discount plans for the customer is as follows:

1. 100% discount for 100 minutes to Asia;
2. 100% discount for 500 minutes to Canada.

After awhile of making calls he wants to know how many free minutes are left to both destinations. So he logs on to his account self-care interface to see whether he is still has discounted service and how much of it is left.

This way, users can get a clear idea of what total discount they will currently receive due to their discount plan combination.

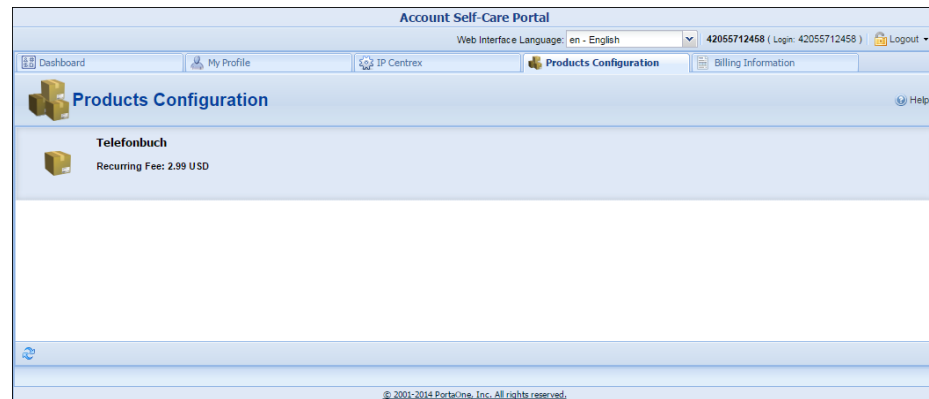
ITSPs clearly show which discount plans are currently active for an account and the volume discount that has been used up.

Improved Product and Subscription Names for End Users

Starting with MR 44, an administrator can provide a clear list of add-on products and subscriptions to end users that differs from the names used by the administrator himself (e.g. the internal product name is “Phone Book” while the name visible to end users is defined as “Telefonbuch”).

The screenshot displays the 'New Product' configuration page. At the top, there's a navigation bar with 'close' and 'Objects' buttons. The main form area contains several input fields: 'Product Name' (set to 'Phone Book'), 'Product Name visible to End User' (set to 'Telefonbuch'), 'Currency' (set to 'USD - US Dollar'), and 'Managed By' (set to 'Administrator Only'). Below these are radio buttons for 'Product Type', with 'Add-on product, precedence level' selected and 'Medium' chosen from a dropdown. A horizontal tab bar below the form includes 'Included Services', 'Service configuration', 'Allowed With', 'Volume Discount', 'Recurring Charges', 'Additional info', and 'Notepad'. The 'Included Services' section is expanded, showing a list of service types with checkboxes for 'System built-in services' and 'User-defined services'. For example, 'Voice Calls' is checked under 'System built-in services', while 'Netaccess' is checked under 'User-defined services' for 'Internet Access'. At the bottom of the form are 'Cancel' and 'Next' buttons.

End users can easily manage their products from their self-care interface and know exactly which service they are using and what they are being billed for.



Separate Charge for Incoming Call Leg in the Prepaid Card Application

Incorporating incoming call leg costs into the price of an outgoing call works well when there are just a few different cost levels for an incoming call leg (e.g. zero cost for local access numbers and \$0.01/min for toll-free). If there are variations in incoming call costs (e.g. price differences between toll-free numbers and access numbers from different parts of the USA, or costs that depend on origination locations), then the number of required outgoing tariffs grows quickly and becomes hard to manage. That's why PortaBilling® now provides separate pricing for incoming (calls to an access number) and outgoing (calls to a final destination) call legs in the Prepaid Card Calling Application. Two xDRs will be generated for such a call: one with a charge for the incoming call leg (leg A) and the other with a charge for the outgoing call leg (leg B.)

New application options

Five new options have been added to the Prepaid Card Calling Application:

- **Separate Incoming Leg Cost** – This allows for the setting of separate prices for outgoing and incoming call legs.
- **Rate By** – This specifies which number should be used for charging an incoming call leg. Available options are: CLI, CLD.
- **Incoming Access Code Prefix** – This prefix must be added to an access number to permit the use of a different tariff for an incoming call leg cost.
- **Charge an Incoming Leg for Idle Time** – If this option is enabled, the IVR application will include idle time in its charge for an incoming call leg. If this is disabled, then the length of the incoming call leg will be equal to the sum of the outgoing call length and be charged accordingly.

- **No Charge if Call Is Not Connected** – If this option is set, the caller will not be charged for an incoming call leg if the outgoing call is not connected.

Separate Incoming Leg Cost	<input checked="" type="checkbox"/>
Rate By	CLI
Incoming Access Code Prefix	IN
Charge the Incoming Leg for Idle Time	<input checked="" type="checkbox"/>
No Charge if Call Is Not Connected	<input checked="" type="checkbox"/>

Configuration

We assume that the incoming call cost depends on the origination location and will be billed by ANI (CLI). To configure separate prices for incoming call legs, do the following:

1. Enter origination rates (e.g. 1778, 1800, 1866) with specific prices into separate customer tariffs. The most commonly used price can be set for a rate with a special destination: | (pipe). The latter will be used if there is no other, better match by the actual phone prefix.
2. Enter rates (e.g. 1, 1212, 380, 91) with specific prices for the destinations to which your customers will call into separate customer tariffs.
3. Configure a prepaid card application as described in the *Prepaid Calling Cards (Using a PortaSIP® Media Server)* handbook and configure the following additional options:
 - Enable the **Separate Incoming Leg Cost** check box;
 - Select CLI in the **Rate By** check box;
 - Make sure that the **Incoming Access Code Prefix** field has the default value 'IN.'
4. Create a product for prepaid card users:
 - Select the Voice Calls service;
 - Create a rating entry on the product's **Usage Charging** tab with the **PortaUM®** node, **IN.Access Number** (in our example **IN.18186386003**) in the **Access Code** field and the tariff with origination rates. Create other rating entries for incoming call legs if you have several access numbers.
 - Create one more rating entry for an outgoing call leg with the following parameters: the **PortaUM®** node, empty access code (if you have different outgoing prices for different access numbers, and then create a separate rating entry for each access number) and the tariff with prices for the destinations to which your customers will call.

This new feature allows you to manage prices for calling card services without administrative overwhelm, improve product price lining and thus increase your revenue.

Preview of External Templates

When using external templates (e.g. for invoicing your customers) you must wait until a billing period has closed to see how the final file generated from the external template will look.

Now you can immediately preview your files upon uploading a template into the system. When you click the Preview button, a PDF-file with a final layout is generated.

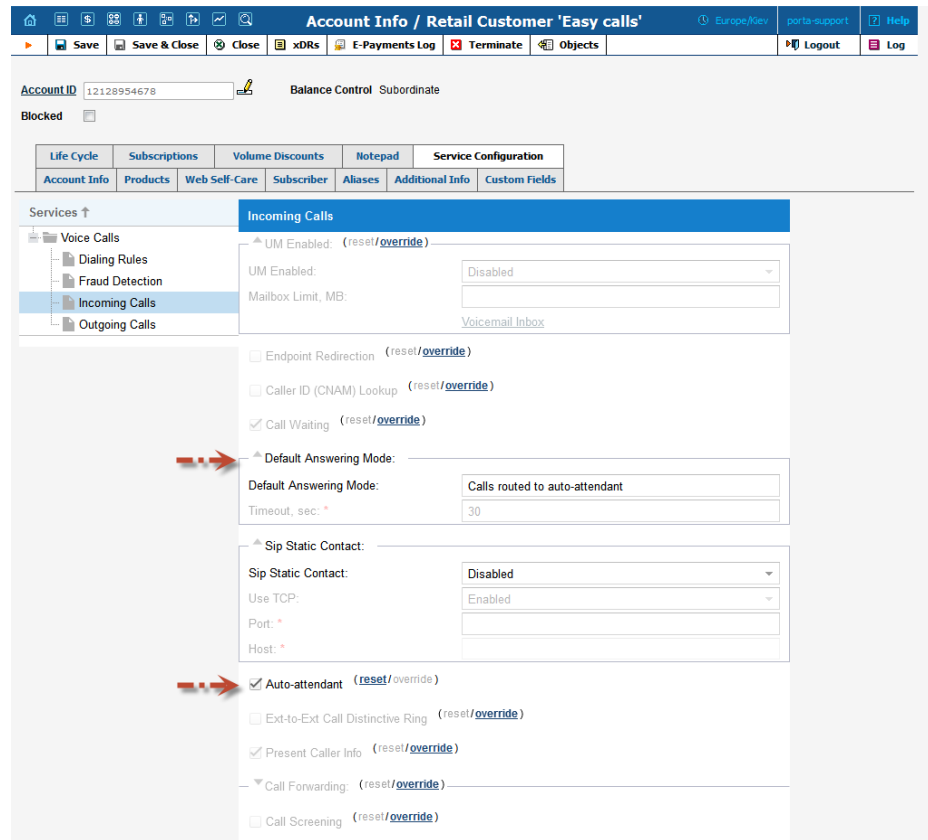
Thus, using the Preview feature you can immediately see a final file and amend / modify your templates in a timely fashion, if necessary.

Note: Preview is available for templates which are created with PrinceXML.

Implementation of the Auto-attendant as a Separate Service

Starting from this release, voicemail and auto-attendant features are implemented as *separate* service features in PortaSwitch®. So now you can offer each of them as individual add-on features / services to your customers, thereby increasing your sales revenue.

When you enable the auto-attendant (for example, for the main DID number in IP Centrex), all incoming calls for this number will always be routed to the auto-attendant. This transpires by automatically changing the calls' answering mode to *Calls routed to auto-attendant*, which thereby overrides previously defined settings.



New Custom Report with CDRs for all Sub-customers of a Reseller

A new custom report that provides information about CDRs produced for all sub-customers of a reseller within a certain period has been introduced in PortaSwitch®. With the **CDRs for all Subcustomers of a Reseller** report, administrators have comprehensive information about charges applied to all reseller’s sub-customers in one place.

Resellers, in turn, may use this report for billing purposes. For example, they can process the output file using a third-party accounting system for generating invoices or various statistical reports.

Media Stream Update During Call Setup

The PortaSIP® server now supports RFC 3311.

Now PortaSIP® can change media session parameters using the UPDATE method defined in RFC 3311. This allows for better handling of multiple responses from different vendors during a call's setup.

In general, the support of RFC 3311 allows a client to update the parameters of a session (such as the set of media streams and their codecs) using the UPDATE method without impacting the state of a dialog. In that sense, it is similar to a re-INVITE, but unlike re-INVITE, it can be sent before the initial INVITE has even been completed.

New Supported IP Phones

Auto-provisioning has been implemented for Yealink T19, T21, T41, T42, T46, T48 and W52P IP phones.

What's New in Maintenance Release 44?

This release includes several new features and improvements:

- **The CDR import tool now can parse rate patterns from CDR files** – While customizing the CDR data manipulation process you may use the `PortaBilling_RatePattern` attribute. For example, you may adjust the CDR import tool to use the `PortaBilling_RatePattern` attribute, and add a column to your CDR files (received from an external source) with the `VOICEONNETRX` keyword for calls made among a single customer's accounts.

Then, while uploading these CDR files to PortaBilling® (where they are immediately processed and sent to the billing engine for rating), the `VOICEONNETRX` rate from customers' tariffs will be applied to charge for these calls. As a result, customers will be charged for on-net calls that occur among extensions within the same IP Centrex context according to a special rate. Note that if no rate for the special destination `VOICEONNETRX` is found in the customer's tariff, a rate based on matching the prefix (destination) with an actual phone number will be used.

Not only can you use special destinations defined in PortaBilling® (e.g. `VOICEONNET`, `VOICEONNETRX`, etc.), but you can also use your own keywords to apply a special rating to imported CDRs.

- **A new option, "Allow Self-care Sign-up," is now available for add-on products** – End users can sign up for "allowed" add-on products on their own. Here is an example of how it can be used:

While transferring existing customers (e.g. from an acquired company) to PortaBilling®, you can assign the “SmartCall” main product, which is basic for all ITSP customers. This product does not include voicemail (since customers purchase voicemail service as an add-on at \$0.99/per month). The transferred customers should be given the voicemail service free of charge, since this is what they signed up for with the original company.

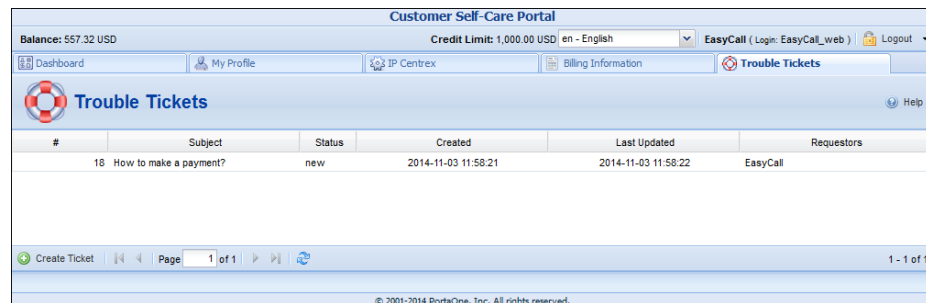
So, instead of creating a “migrated customers” main product, it is much easier to assign the basic one (“SmartCall”) and the “Grandfathered Voicemail” add-on product (charged at \$0 per month) to your transferred customers.

If “regular” SmartCall customers discover that they can add this add-on and receive voicemail service without paying for it – they will surely abuse it. Therefore this option is disabled by default and the “Grandfathered Voicemail” add-on product can only be assigned by administrators.

- **Improved Search of Connections** – Now you can search for a connection not only by its description but also by its IP address or node name. This enhanced search capacity helps you to troubleshoot where the issue originates from in your network.
- **Duplicate rates are marked as Inactive in Rate Upload Wizard** – During a rate upload, duplicate rates (i.e. rates that have the same parameters as already existing ones) are skipped and marked as those that won’t be added. They are highlighted as Inactive on the **Review Rate Information** page in the **Rate Upload Wizard**. In case a rate still needs to be uploaded, an administrator can manually activate it. Also, after changes have been made to this rate, its Inactive status is automatically removed, the rate becomes active and it is added to the database during the import process.
- **Processing of .csv files created on Mac OS is now supported** – The Upload Wizard can now parse and process .csv files that have been created in Windows and in MacOS, as uploaded .csv files are now passed through “dos2unix” and “mac2unix” utilities.
- **Entering rates for messaging services becomes more convenient** – Starting from MR44, messaging services are charged per message. Now to define rates for messaging services you only need to enter a mobile network prefix and a single price per message.
- **The Rate upload wizard has been improved** – Uploading both USA & Canada rates poses a challenge since they (plus a handful of other countries, like Bermuda) share the prefix 1. This makes it impossible to guess the country code just by looking at

the phone number. Before, an administrator had to manually assign country codes for the USA & Canada prefixes, if there were no more generic ones. Now, the Rate upload wizard can map area codes and countries (USA and Canada) and hence assign the country automatically.

- **Call recording functionality has been extended** – Now end users can filter call recordings for / from a certain period on the Customer and Account self-care interfaces. Note that the **Call Recording** tab has been renamed **Call Logs** on the Customer and Account self-care interfaces.
- **Activating / deactivating service features on the Account Self-care interface** – Users can now activate / deactivate service features enabled by the administrator. For example, if an administrator enables the Phone Book service feature, a user has the option to activate or deactivate it on the Account-self care interface, depending on their needs.
- **The RT (Request Tracking) system has been integrated with the customer self-care interface** – Using the **Trouble Tickets** tab, your end users can view a list of recent tickets and create new tickets within the RT system.



This will allow you to deliver better customer service over the web and provide a better user experience for those using your services.

- **New Media Server supports five more applications** – Now the New Media Server supports the following applications:
 - **Call forwarding management**
 - **One-stage calling**
 - **Pass-Through IVR**
 - **One's own voice mailbox access (with PIN protection)**
 - **Access to one's own voice mailbox**

Please note that DISA functionality for the two latter applications will be implemented on the new Media Server in MR45.

- **Hebrew, Norwegian and Arabic versions of self-care portals** – We have now added Hebrew, Norwegian and Arabic to the Customer and Account self-care interfaces. Translations have been provided and will be further maintained by the PortaOne

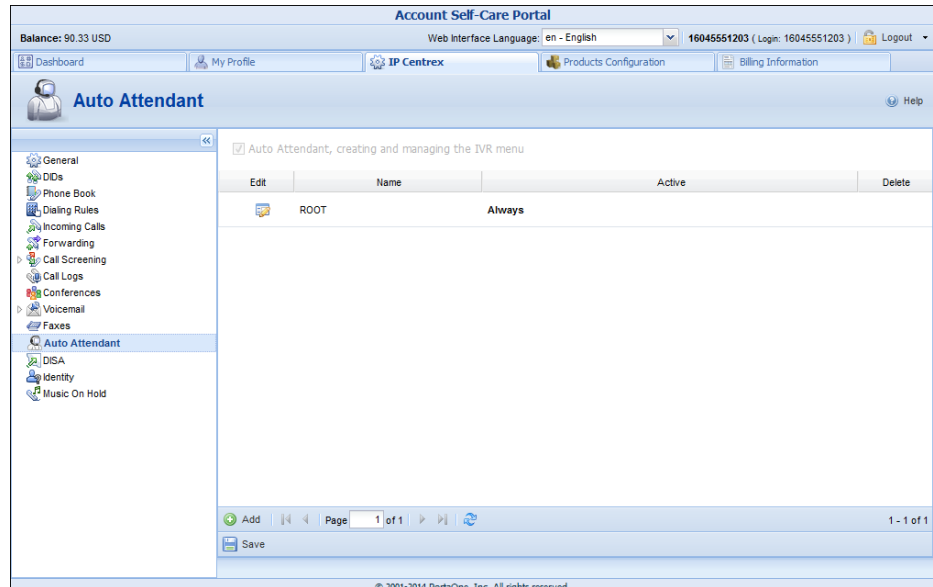
customer community. We encourage PortaOne customers to make translations into other languages as we've witnessed that this kind of localization approach is very effective.

Important Upgrade Notes

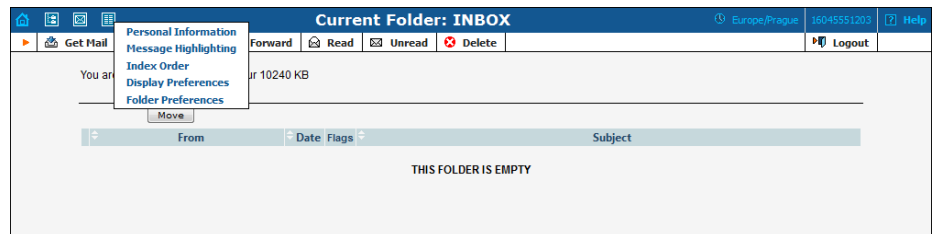
- **Implementation of the auto-attendant as a separate service**
 - When updating PortaSwitch® to MR44, be aware that if the Unified Messaging service feature was enabled for a phone line *and* mailbox mode was set to *Auto Attendant*, after updating PortaSwitch® these phone lines will have the auto-attendant enabled. Note that these phone lines' call answering modes will also be changed to *Calls routed to auto-attendant*.
- The account's **Creation Date** field has migrated from the **Additional Info** tab to the **Life Cycle** tab.
- **Call Queue Configuration Migration** – The call queue configuration has migrated from the “old” UM web portal to the new unified self-care portal.

In a previous call queue version, an administrator could enter any number and calls arriving to the queue would be forwarded to it. Now, call queues transfer incoming calls to huntgroups, therefore *only* a huntgroup number can be selected when creating a new call queue.

When migrating legacy call queues, their configuration is preserved (e.g. the number 1-604-5551203 is left as the “forward to” number) and these call queues continue to work as before. An administrator can select a huntgroup number for this queue; however, *no* other number is allowed to be entered manually.
- **IP Centrex functionality removed from the PortaSIP Media Server web interface** – Since the configuration of all IP Centrex features (such as UM Preferences, Auto Attendant, Dial Directory, Call Queues and Conferences) has migrated from the PortaSIP® Media Server web interface to the Customer and Account Self-care interfaces, these features have been removed from the PortaSIP® Media Server web interface. Now your customers can easily configure and modify all IP Centrex features from within a single interface.



If you want to temporarily allow any of the above-mentioned features on the PortaSIP® Media Server web interface (which now serves solely as a voice mailbox, where end users can listen to their voice messages, see their faxes, send e-mails, etc.), contact the PortaOne support team.



The “Manage UM Account” link on the **Account Info** page has been renamed “Access to UM box,” since all IP Centrex features have been moved to the self-care interfaces.

- **Time in *get_customer_xdrs* and *get_xdr_list* API methods is now provided in UTC** – therefore, make sure that your API applications convert the time correctly.

In addition, the date and time format in the *get_customer_xdrs* and *get_xdr_list* methods has been changed to “YYYY-MM-DDThh:mm:ss.” For example, now a time stamp can be defined as “2014-09-23T09:00:00” in XML requests and will then be returned by PortaBilling® using the same format.

- **Disabling unnecessary call auto recordings for voicemail** – To prevent recording unnecessary calls and thereby use less space on the hard drive, the call auto recording functionality has been improved based on customer feedback. Starting from MR44, calls made to voicemail will not be automatically recorded. This

includes: calls diverted to voicemail and calls made to a voice mailbox to retrieve messages.