PORTA ONE

PortaSwitch

New Features Guide

Maintenance Release

45

Documentation

www.portaone.com

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Preface

PortaSwitch® Maintenance Release **45** is the next long-life release which is mainly focused on improved system stability. It will be supported for a long time and will include multiple incremental builds. Starting from this release, the **long-life releases** will have fewer large-scale new features and instead, focus on reliability growth, bug-fixing and minor improvements.

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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Midterm Invoices

It might occur that in the middle of a billing period, a customer wants to pay for services consumed and does not want to wait until the end to receive an invoice. For such customers, administrators may now generate a midterm invoice.

Let's assume that a customer with a monthly billing period wishes to pay for services consumed up to the 13th of May and informs the administrator about this. On the 14th of May the administrator generates a midterm invoice for this customer, which covers the period from the 1st of May until the 13th of May. The invoice is then immediately sent to the customer. The regular invoice that's generated at the end of the billing period will cover the rest of the period – from the 14th of May until the 31st of May.

Thus, midterm invoice functionality will help administrators to manage customers who prefer receiving several smaller invoices rather than a single large one, even if the total amount is the same.

BCC Field Is Added to Notification Templates

When certain events take place in the system, an administrator might need to be informed so they can respond immediately according to the situation. For example, if a customer makes a payment by credit card and their credit card charge is declined, a corresponding notification is sent to this customer. However, the administrator might require receipt of such notifications as well.

To expand the list of users who will receive alerts / notifications about particular events, the **BCC** field has been added to email notification templates (accessed from a customer class and a user account).

With the **BCC** field available, the administrator just adds his email address to the corresponding notification template, and from then on, he will receive messages notifying him about credit card charge failures (invisible to other message recipients).

If there are several stakeholders who want to receive a copy of a particular notification, the administrator enters their email addresses separated by a comma in the **BCC** field.

With the **BCC** field in the email notification templates, you can now clearly define a list of recipients who will receive notification emails about certain events taking place in the system.

Subscriptions Assignment Concepts

The introduction of add-on products in PortaBilling® gave administrators the ability to easily adjust service configurations according to customers' needs. Each add-on product represents a value-added service provided to end users for a fixed price (subscription). Assigning an add-on product to an account activates a new service configuration and automatically produces correct current charges.

The price charged, once an add-on product is consigned to a customer's account, is explicitly defined by the subscription plan assigned to it. To simplify subscriptions management and add-on products' configuration procedures, the following best practice was introduced: 'one service configuration – one price.' Thus, assigning multiple subscriptions to an add-on product is no longer valid. This best practice approach has been strengthened with this release. Starting now, to define a flat rate for provided service(s) and avoid discrepancies between subscription plans with different configuration parameters, only one subscription plan per product (both main and add-on ones) is allowed.

Customer Notification Before Reaching a Volume Discount Threshold

Now you can notify your customers that they are reaching the threshold for when a current discount stops being provided to them.

This is implemented with the help of an additional warning threshold for volume discount. When a consumed volume of service reaches its warning threshold, as defined by an administrator for a particular

discount, a corresponding notification is delivered to the customer by email or SMS.

Consider the following example:
A customer wants to sign up for 200 free minutes of calls to Canada. Moreover, he asks to be notified when he is down to only 20 free minutes.

An administrator creates a volume discount plan for him that provides 200 minutes of free calls for Canadian destinations and then configures the requested customer notifications: to inform him when he has used up 180 minutes and again, when the whole 200 minutes are used up.

Then he assigns this discount plan to the customer's account.

When the customer has used up 180 of the 200 minutes for outgoing calls, he is notified by email accordingly.

NOTE: It is possible to specify warning thresholds only for value-defined discount thresholds, i.e. notifications cannot be defined for unlimited calls within a volume discount plan.

Sending threshold notifications to your customers gives them a clear idea of the amount of services consumed and other charges. And it may also encourage them to buy additional discounted service bundles, thus raising your sales revenue.

Login to the Participant Self-care Interface with Your Own ACL

Imagine that your customer wants to set up a certain service and this action should be performed on the customer self-care interface, but the customer's access level settings don't allow the customer to perform it.

(This can happen, for example, if you have created and assigned to the customer an ACL that forbids access to certain features.)

Now you can aid your customers without making changes to their access levels: you can simply login to the customer self-care interface with your own ACL and perform all necessary setting-up on behalf of the customer.


Login options are available on the PortaBilling® **admin interface** and on the **reseller self-care interface.**

You can choose between these login options when you login to the web interfaces of your resellers, customers, distributors and their sub-entities.

You can grant and deny permission to use the **Login with your own ACL** option to the users of your choice.

Firewall Protection for MySQL Database Instances

More effective control of access to your MySQL databases is introduced with this new release. The firewall will immediately reject access attempts from any other hosts except those specified in the white list. And now you can conveniently set up your databases' white lists using the Configuration Server web interface.
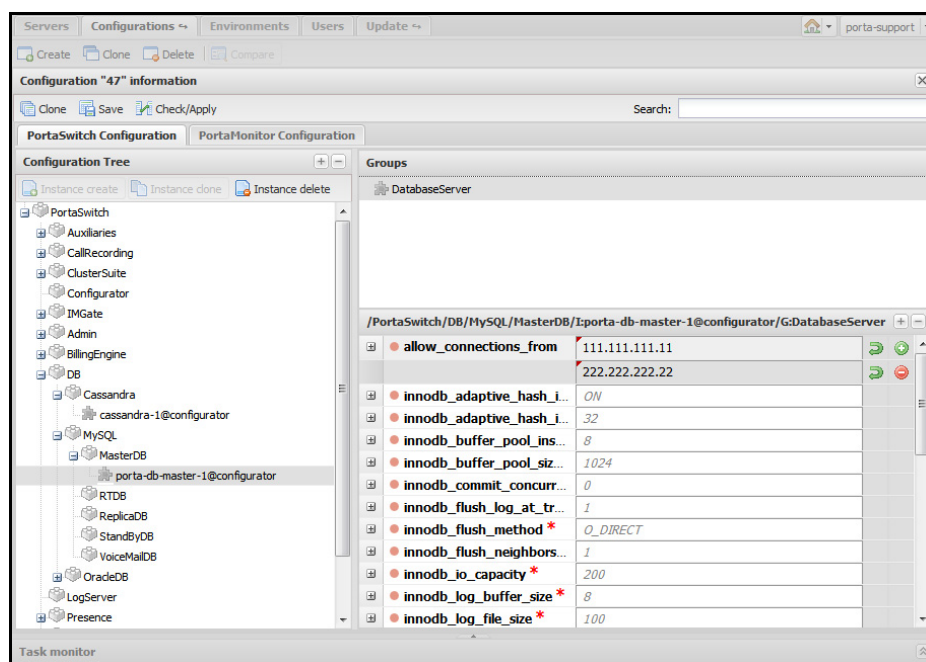
Note: This new firewall protection of the MySQL database is introduced as a replacement for the old tcp-wrapper access control, and therefore you will need to port your previous list of allowed hosts to the new white list via the configuration server web interface.

PortaBilling® API Now Allows Users to Purchase Extra Quota

This feature is mainly intended for ISPs. They may now allow their users to purchase extra Internet quota on the company's web site without any actions required from PortaBilling® administrators.

This new feature is based on a PortaSwitch® Add-on Products solution that appeared in previous releases. It allows the user to add Internet quotas (provided by one and the same or similar add-on products) to an account more than once and it will aggregate these quotas.

Configuration

The PortaBilling® administrator creates a range of options (add-on products), that each provide their own quantity of Internet quota (e.g. 5GB, 10GB, 20GB, 50GB, etc.) and price. All of these add-on products must have the *same* precedence level and contain volume discount plans having the *same* destination group set.

API

The interconnection between PortaSwitch® and the company's web site, where users may purchase extra quota, can be realized via the PortaSwitch® API interface, as usual.

To apply Internet quota to a user, the *update_account* API method must be used with the appropriate add-on product specified in the *assigned_addons* property.

This add-on product must have the following property specified in its *ProductInfo* structure:
>   *topup_addon* – "Y"
>   *i_product* – the unique ID of a respective add-on product with usage quota configured

This new functionality will generate more revenue from existing customers by offering and selling extra Internet quotas. In future releases, we plan to implement this feature on the PortaBilling® admin interface.

# What's New in Maintenance Release 45?

This release includes several new features and improvements:

- **Improved pricing parameters definition for owner DID batches** – When creating an owner DID batch you are notified about two types of batches: a *free* batch that will be used for grouping DIDs or online web signup and a batch with the *DID markup* that contains additional charges to be applied to your customers for DID usage. The latter batch should be assigned to a customer so that this customer's provisioned DIDs will be automatically added to the batch. The customer will be charged for every provisioned DID according to the pricing parameters defined within the owner batch.

    With this enhancement you can clearly distinguish between two types of owner batches and their intended usage and will not miss revenue received from DID provisioning.

- **Brazilian Portuguese versions of self-care interfaces** – We have now added Brazilian Portuguese to the customer and account self-care interfaces. Translation has 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.

- **Improved presentation of volume discounts on the account self-care interface** – The presentation of volume discounts has become more convenient on the account self-care interface. Now the **Volume Discounts** section displays only *Active* discounts assigned to a user's account. This clearly shows which discount the end user will receive when making a call or consuming traffic, as well as what volume of services is still available with a discount.
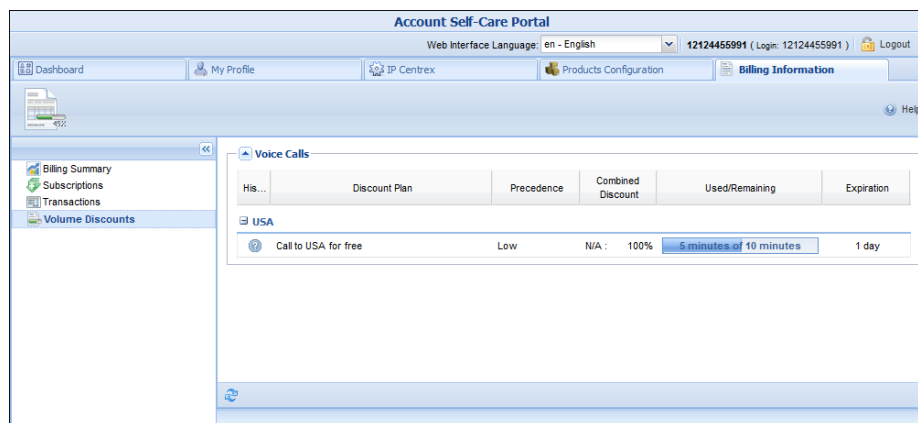
Information about *Consumed / Used up* and *Not Yet Active* volume discounts and volume discounts' usage history can be obtained (if available) in the **Discount History** window, which is visible by pressing the ⊘ **History** button.

- **The Customer Statement report enhancement** – The Customer Statement report has been enhanced, so now, along with information about a customer's invoices, payments and running balance for a selected period, it also provides totals for all these categories.

- **Direct access to account self-care interface from the reseller web interface** – Resellers can now switch to account self-care interface directly from their web interface. To access the self-care interface of the account in question, a reseller simply clicks either the **Login with edited 'Account' ACL** button (to login to the account self-care interface via the access level currently assigned to the account) or the **Login with your own ACL** button (to login to the account self-care interface via the reseller's own ACL settings.) No additional reauthorization is required.

- **A new call handling rule Remote IP has been added** – It provides authorization based on an IP address taken from a custom *Remoteip* SIP header. Note that this IP address is used "as is," without validation.

- **New service functions for email notification templates** – New service functions have been introduced for editing email notification templates:

  - `column ()` – This outputs a space padding string of a given width. The text alignment can be either flush left or flush right.
  - `line ()` – This outputs a string of repeated characters (e.g. it can be used to underline.)

  More detailed descriptions of these service functions and their parameters are covered in the **PortaBilling Templates Guide**.

- **Forwarding from an account to a huntgroup where this very account is listed, has been improved** – The routing algorithm has been corrected for cases when an account doesn't have the "ring" mode in the account's default answering mode.

- **A new attribute sip.sticky_1xx_sdp has been added to the Service Policies feature** – When enabled, B2BUA registers the first SDP received in 18x SIP response from the callee and sends it to all consequent 18x SIP responses sent to the caller. This is required for those rare cases when a caller UA violates the RFC3261 and after receiving the first 183 SIP response, is unable to process the consequent provision SIP responses (180, 183,
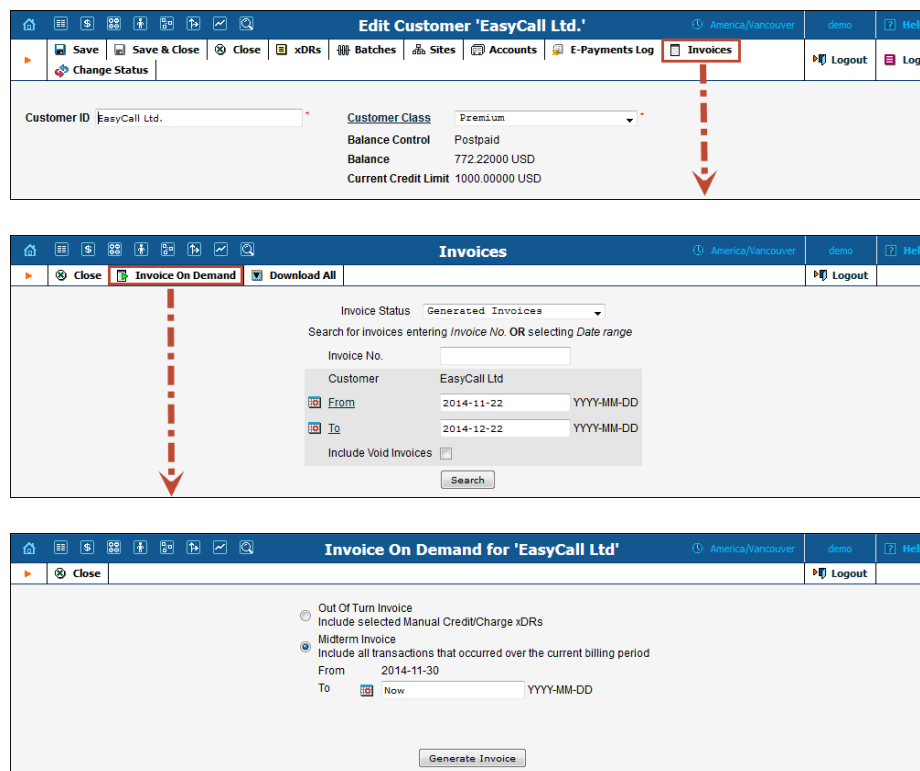
etc.) without an SDP. A Service Policy with this attribute should be applied to the caller.

- **Enhanced ACL modes** – The "Developer" ACL *mode* has been modified to the "Admin" ACL *mode* on the Configuration server. When enabled, the "Admin" ACL *mode* allows your root users to see the access level components and dependencies between these components. This will help you to easily create your own access levels on the basis of these components, and to allocate them to the entities of your system (administrators, resellers, retail customers, etc.). This way, you can easily implement the PortaBilling® security policy and customize it to suit your business environment.

- **xDR importer improvement** – The *call_id* field can now be imported.

- **The New Media Server supports two more applications and two features** – The New Media Server now supports the **Account Top-Up via Credit Card** and **One-Stage Calling** applications. Also, the **DISA** and **Dial Directory** functionalities have been implemented.

- **The New Media Server enhances support of the One's Own Mailbox Access IVR application** – The New Media Server now supports the **Make Outgoing Calls** menu for the **One's Own Voice Mailbox Access** IVR application.

- **The status of the LCR blending report generating process has been added** – It can now be found in the `httpd-error-web.log` and `taskstack.log`, thus allowing you to monitor the report generating process and estimate when it will be completed.

- **Prepaid card calling IVR application on the New Media Server now supports dynamic re-authorization** – Dynamic re-authorization is now supported for the Prepaid card calling IVR application on the New Media Server. Therefore, with the migration of IVR applications to the New Media Server, all benefits of the overdraft protection functionality are preserved.

- **Additional services are now available for IPTV subscribers** – Three more services such as "Has PPV," "Has Promo Channel" and "Has VOD" are now provisioned for Minerva subscribers from PortaBilling®. When new accounts are auto-provisioned on Minerva via the API, these services are enabled by default, thus sparing you a few mouse clicks. However, if necessary, they can be manually disabled on the Minerva side.

Important Upgrade Notes

- **The Terminate and Restore Buttons have been replaced with the Change Status button** - Note that the **Terminate** and **Restore** buttons on the **Customer Info** toolbar have been replaced with the 🔄 **Change Status** button, which will redirect you to the **Change Customer Status** window. In the **Change Customer Status** window you will be able to block / unblock the customer, terminate the customer (provisionally or permanently) and restore the customer after provisional termination.

- **The Invoice On Demand Window has been introduced** – In the **Invoice On Demand** window, administrators can generate out-of-turn invoices (which include manual credit / charge transactions) and *midterm* invoices, which cover smaller intervals during a billing period for the selected customer.

  It is accessed by pressing the **Invoice On Demand** button located on the **Invoices** page toolbar.

Note that as a result of these interface changes, the **Out-Of-Turn Invoice** button is no longer present on the **Customer Info** toolbar.

- **Limitation of Subscription Plans per Product** – To define a flat rate for provided service(s) and avoid discrepancies that may arise between subscription plans with different configuration parameters – starting from this release, only one subscription plan per product is allowed (main and add-on ones.) Backward compatibility will be maintained for the products that have several subscription plans assigned – the number of subscription plans for such products will remain unchanged after an update. For newly created products, only one subscription plan is allowed.

- **The xdrimport._Soap group of options has been removed from the Configuration Server web interface** – PortaBilling® accepts xDR info only via RADIUS. The xDR files are uploaded from an external source to PortaBilling®, where they are immediately processed and sent to the billing engine for rating. As a result, the customer's balance is updated and CDRs are produced practically in real time.

- **Only PortaBilling® administrators (users who log in to the admin web interface) can now create complex custom dialing rules (e.g. use an external module to translate a number)** – All other rules (e.g. containing regular expressions, *local_to_e164* and *e164_to_local* functions) can still be created by other users (e.g. resellers.)

- The **Holiday Line Management** IVR application hasn't been in use for some time, therefore we removed it since we've come out with a new release.

- We've discontinued **Voice-to-Text** support. This feature used a third-party service, but that service is no longer available on the provider's side.

- The **PortaSIP® Media Server now keeps the display name blank for outgoing calls if the initial INVITE request doesn't have it** – Previously, the calling party number was introduced as a display name.