PortaSwitch™

New Features Guide

Maintenance Release 17

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Maintenance Release 17
V1.17.3

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Preface

This document describes the new features found in PortaSwitch Maintenance Release 17.

Where to Get the Latest Version of This Guide

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

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

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

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

Tips provide information that might help you solve a problem.

1. New Features in PortaBilling100

Adaptive Routing

As customers' expectations grow, the ability to control quality of service becomes increasingly important. Today many VoIP users are dissatisfied with "unacceptable call quality" – and without happy customers you will probably not stay in business very long. Until now, call quality monitoring was largely a manual operation, with human operators and network engineers tracking and analyzing a specific route and evaluating acceptable vendors for terminating VoIP calls. PortaBilling100 presents a fully automatic adaptive routing model for controlling quality of service, without the need for any manual activity.

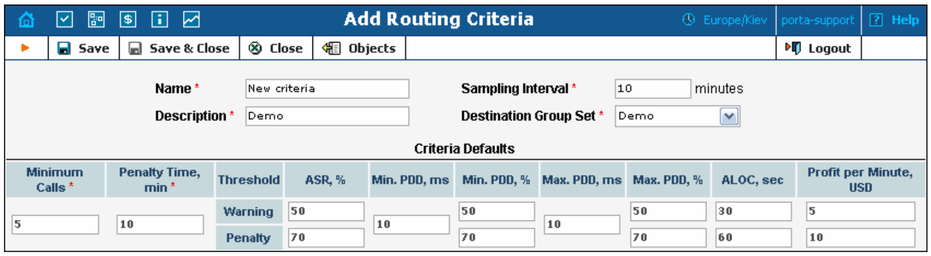
The main idea of adaptive routing is to dynamically measure a vendor's quality parameters, and adjust the routing priority accordingly. These quality requirements are predefined in the form of threshold parameters on the **Routing Criteria** page, and are then automatically applied to specific vendors. Any vendor who fails to satisfy your quality requirements will go to the "penalty box" – the very bottom of the routing list. This means that the system will try first to terminate calls using other carriers (with a good quality evaluation). However, if all of them fail or are unavailable, the "penalized" carrier will have a chance to terminate the call. It is still better to send a call via an inferior vendor than to have it fail completely.

In earlier releases, a carrier's place on the routing list was determined by the route category, assigned preference value, and cost parameters (the LCR model). Now, an evaluation process based on quality criteria is added.

For effective quality measurement, the administrator should specify the following key control parameters:

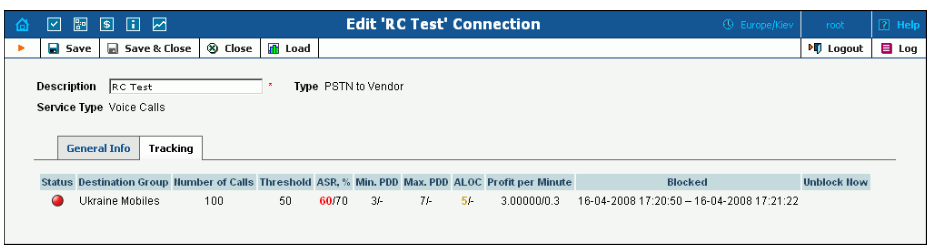
- ASR (Answer Seizure Ratio) – The number of successfully connected calls divided by the total number of call attempts.
- PDD (Post Dial Delay) – The time interval between the connection request to a vendor and ring-back.
- ALOC (Average Length of Call).
- PPM (Profit per Minute) – The aggregated profit, i.e. the difference between the actual charged amounts in the CDRs for your customers and vendors.

You may have experienced a situation in which you charged your customer for just a few seconds, but were charged by the vendor for a full minute, due to different time-rounding intervals. As a result, if a call was made for 17 seconds, you could still lose the money even if the given vendor's cost per minute was lower. Now with the help of the **PPM** control parameter, routing can be adjusted to avoid such events. The PPM calculation is based on previous calls, and thus takes into consideration all the special rating elements applied to a call, such as fixed and relative surcharges, rounding intervals, and so on. By providing accurate profit figures, it helps to maximize your future profits.



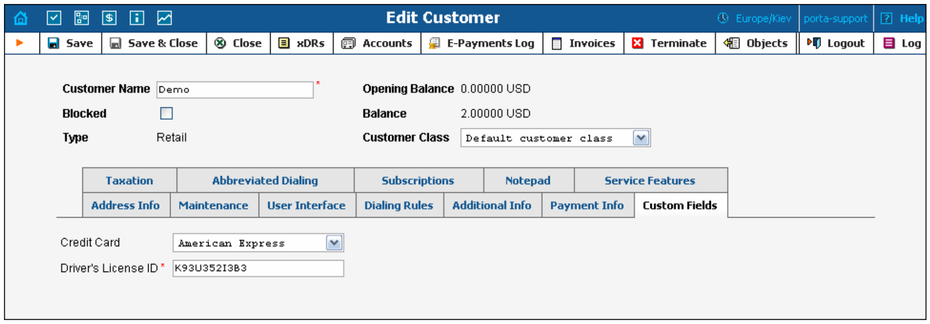
Each of the above parameters requires two values, which define the warning and penalty thresholds, respectively. When the value of a parameter reaches the predetermined threshold, the administrator receives an e-mail alert about the latest connection threats. Moreover, the administrator can track the current connection status on the **Tracking** page. This status is represented by different colors, as follows:

- GREY – the number of calls is not enough to apply filtering differentiation;
- GREEN – the route meets the quality requirements;
- YELLOW – the route is active, but some of its quality parameters are outside the warning thresholds;
- RED – this route is currently being penalized.



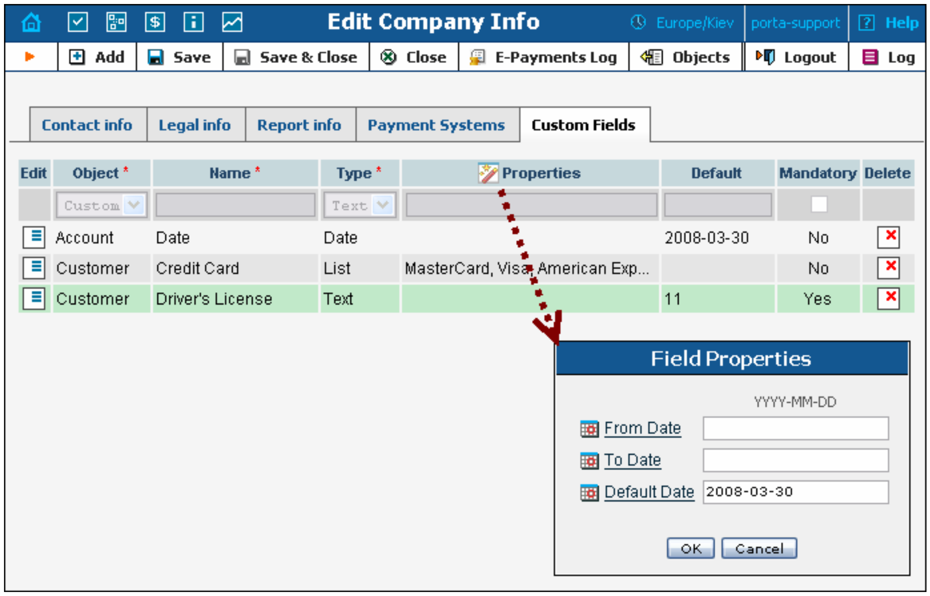
Customized Account / Customer Info

Sometimes it is desirable to store some extra customer or account attributes (e.g. driver's license or tax code) to supplement the standard PortaBilling100 information. Starting with the latest release, you have the ability to create your own **Custom Fields** and give them whatever name you like, set a field type, and so on. Custom fields are treated like any other field; they can be set on the Customer/Account Info page and used for search queries.



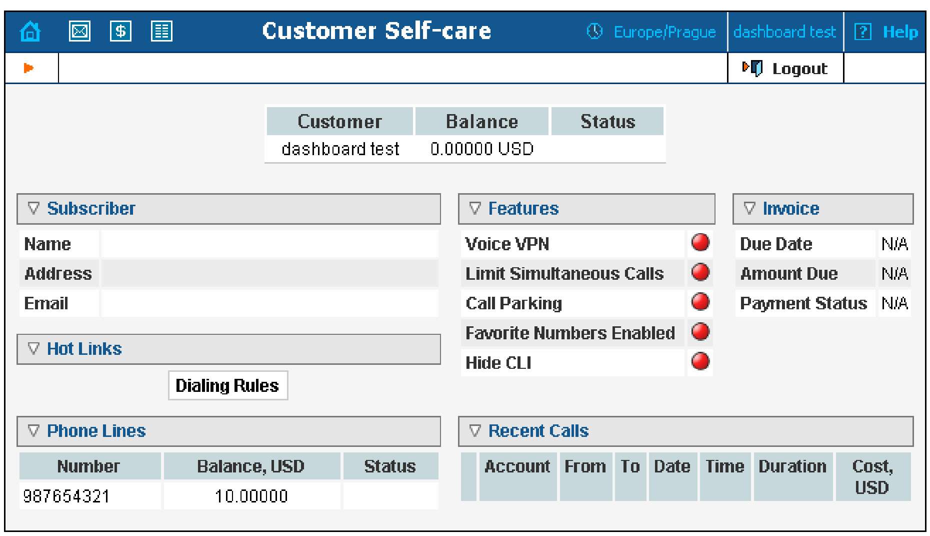
Administrators can manage extra user information using the **Custom Fields** tab on the Company Info page. For each new custom field, the following attributes must be set:

- **Object** – Defines whether the custom field applies to the Customer or the Account.
- **Name** – Descriptive name of the field. This is the name that will be displayed next to the custom field on Customer/Account Info page.
- **Type** – You may choose what type of field this is:
  - Text - basic single line input field;
  - Number – input field used to store and validate numeric values;
  - Date – date field type used to store dates;
  - Date & Time – custom field that stores dates with a time component;
  - List - single select list with a configurable list of options.
- **Properties** – Enables you to customize the field properties which define its state, appearance, or value. The properties are specific depending on the field type. Click the **Properties** or wizard icon to invoke the wizard, which will enable you to define a new field format or change an existing one, and specify the default value a custom field should have.
- **Default** – Read-only attribute, which must be specified in the **Properties** attribute.
- **Mandatory** – Defines the mandatory status of the field.

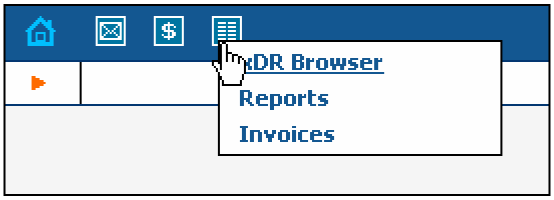


Customer Interface

The customer self-care interfaces become more intuitive with each new release. This release delivers a new dashboard on the customer's home page and account self-care interfaces when logged in. The dashboard provides easy access to the most important billing information, and enables easy management of various service parameters.

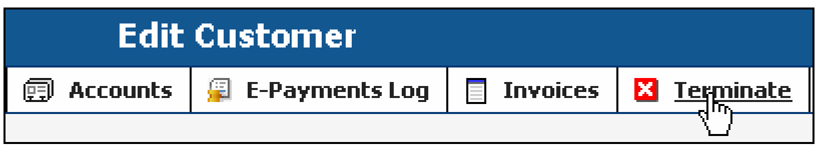


All functional areas can still be accessed using drop-down menus:



Enhanced Account Management

PortaBilling100 MR16 allowed you to terminate a specific account. Starting with MR17, you may now terminate a customer, including all his accounts. If for some reason you do not want a customer to remain in your PortaBilling environment any longer, use the **Terminate** button on the Customer Info toolbar. This option allows you to stop all the customer's activities, and later to remove him and all his accounts from the environment. When terminated, the customer is no longer available for any operations. The only way to trace such a customer is by using Advanced Search with the "closed status" filter.

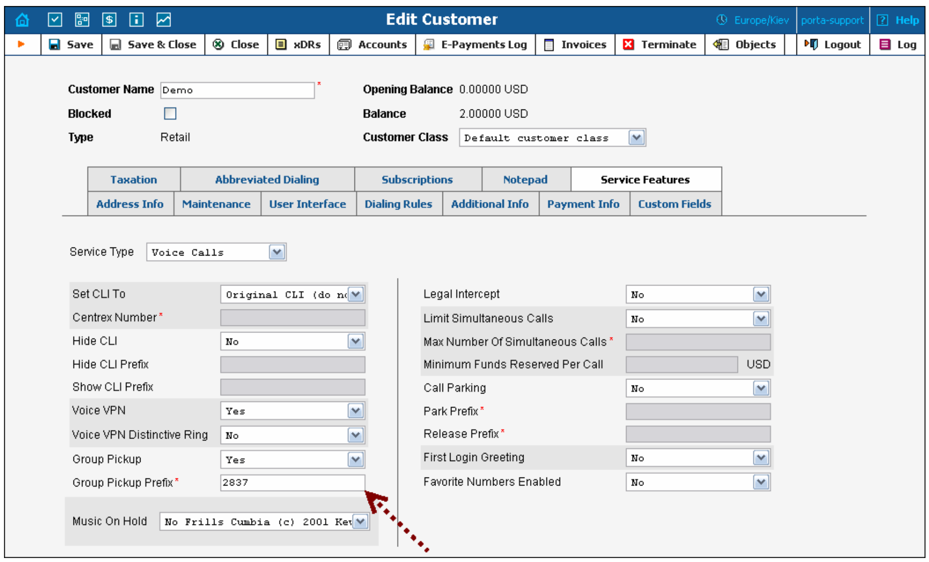


Note: Please make absolutely sure you want to terminate the customer, since no recovery process is available.

2. New Features in PortaSIP

Group Pickup

Sometimes you may want to answer an incoming call that is ringing on someone else's phone without leaving your desk. A new feature allows phones in the same IP Centrex environment (all accounts under the same customer) to answer each other's calls by dialing a special code on their phones. To activate this feature, the administrator should enable the **Group Pickup** option and specify the **Group Pickup Prefix** using the *Service Features* tab.

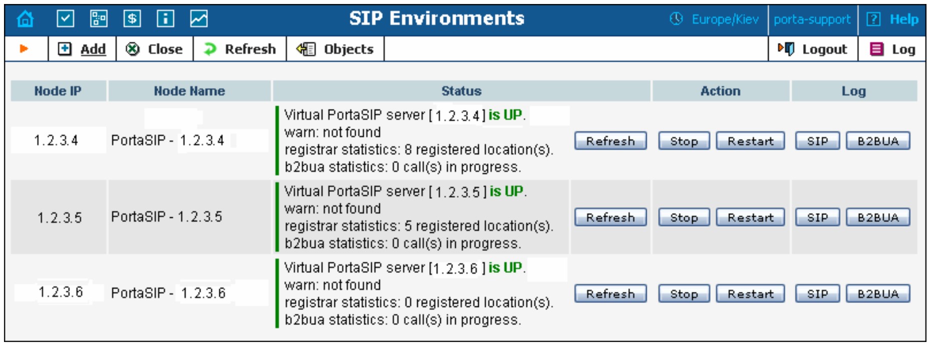


When an incoming call is received, any user belonging to the same group can pick up the call by dialing the group pickup prefix.

NOTE: Each prefix may belong to only one pickup group.

Web Administration

You may now configure the network interface on the SIP server using the web interface. The **SIP Environments** page allows administrators to create and edit virtual PortaSIP instances. On a single PortaSIP installation (one physical server, one license) you can run multiple virtual PortaSIP instances that can be used in a PortaBilling100 virtual environment.



To create a new SIP instance on the SIP server side, you must provide an extra IP address (IP alias), since a gateway (node) may be registered to one environment only. Thus, you cannot have a node with the same IP address in two different environments.

Presence Services

Sometimes you may wonder: Who's on my network? Are they available to take a call? How can I manage how my availability is publicly displayed? This is all about getting your "presence" right. PortaSIP has taken the first step towards displaying information about the availability of SIP user agents in real time, based on the SIP protocol.

The SIP-based protocol supports any form of real-time communication, regardless of whether the content is voice, video, or instant messaging. It also contains presence location information, in the form of registrations. Now PortaSIP delivers presence, a service that allows users to keep others informed of their status, availability, and how they may be contacted – all before a communication session even begins. A SIP user agent is able to receive subscribe requests, respond to them, and generate notifications of changes in presence status. This is all done by providing real-time availability information to contacts with SIP addresses.

Supported by nearly all VoIP multimedia clients, such as eyeBeam, x-Lite, and MS Messenger, the presence service can easily be implemented to display your availability and view the availability of others.

Presence information is extracted with the help of a presence server. This is a dedicated entity which must be installed on a separate server so as not to increase the load on the main PortaSIP server.

3. New Features in PortaUM

Call Forward Management

The IVR application has been enhanced by self-care account administration, including call forward management by end-users. Following a voice prompt, customers can select the required forwarding mode and specify a call forward phone number.

Note: In order to use this feature, account users must activate the **UM Enabled** option.

Improved Callback Application

Using a callback service has become easier thanks to CLI registration. Now you do not need to enter your PIN every time the system calls you back. Rather, PIN identification is required for the first session only. After that you need only use the access number in order to initiate a callback.

The typical call flow for a **new** customer will look like this:

1. The user dials the access number, and the incoming call is disconnected.
2. The callback server calls the user back.
3. The system asks the user to enter his PIN (ID of his voucher account).
4. A new debit account is created in PortaBilling100.
5. The voucher's balance is transferred to the newly created account.

The typical call flow for an **existing** customer with zero balance will look like this:

1. The user dials the access number, and the incoming call is disconnected.
2. The callback server calls the user back.
3. The system checks the account ID.
4. The existing account is recharged by the card cost.

Spanish Language Support

In addition to English and Russian language, support for Spanish has been added to PortaUM management IVRs and the prepaid card application.

We plan to include more languages shortly. Your requests for particular languages are welcome.