



New Features Guide

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Table of Contents

Preface4
Trace chains of events that affect customer's balance, status, invoice calculation.....5
Access to log files for periodic tasks via web interface.....6
Online charging for roaming data via RADIUS.....7
Other features and enhancements.....8
 Full Polish language support for IVR.....8

Preface

PortaSwitch® Maintenance Release 96 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 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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Trace chains of events that affect customer's balance, status, invoice calculation

Administrators can trace the events that have affected a customer's balance, status, and invoice calculation right from the PortaBilling® web interface. Records now have extended descriptions, e.g., “Unallocated payments changed from 10.00 to 70.00 (increased by 60.00). Payments source – from customer payment transaction (xDR id 2204).” This helps administrators find the root of the issue faster when dealing with inquiries from customers.

Let's say, a customer John Doe receives an invoice for September with an amount of \$100 due. John calls the customer service manager to dispute the September invoice. During the call, the customer service manager agrees to reduce the amount due by \$30. In two weeks, John contacts the customer service manager again to clarify why he received a notification about an overdue invoice even though he paid in full.

To investigate the issue, the administrator opens **Customer > Audit log** and filters the records made in October. He finds the record that the invoice was adjusted by \$30 and the balance after adjustment was \$70. Also, he sees that a \$60 payment was made, so the amount due is now \$10. No payments were received after that and the invoice status was changed from “Partially paid” to “Overdue”. The administrator decides to check whether the invoice was adjusted correctly. He goes to the CRM system and finds a note about the disputed invoice, confirming that \$30 is the adjustment amount that was actually agreed upon with the customer. The administrator calls back the customer to explain that his payment didn't cover the adjusted invoice amount, so John still needs to pay \$10 to cover the invoice in full.

The screenshot shows the 'Customer Audit log' interface for customer 'John Doe'. The search criteria are set to 'APPLY TO \$300'. The audit log results are as follows:

Timestamp	Entity type	Description
2021-10-02 00:00	Invoices	Adjustments changed from 0.00 to 30.00 (increased by 30.00)
2021-10-02 00:00	Customers	The balance was adjusted for -10.00. xDR id: 2095, approximate balance before adjustment: 180.00/70.00
2021-10-02 00:00	Invoices	Invoice status was changed from 'Unpaid' to 'Partially Paid'. The reason of changing status - adjustment applied to unpaid invoice (Invoice status: 'Unpaid' -> 'Partially Paid')
2021-10-02 00:00	Customers	Unallocated payments changed from 0.00 to 60.00 (increased by 60.00). Payments source - from customer payment transaction (xDR id: 2095)
2021-10-02 00:00	Invoices	Applied 60.00 from unallocated payments to invoice. amount_paid changed from 0.00 to 60.00 (increased by 60.00). price_balance_paid changed from 0.00 to 60.00
2021-10-02 00:00	Customers	Balance adjusted for -60.00 by making the payment. xDR id: 2096, approximate balance before adjustment: 70.00/10.00
2021-10-02 00:00	Customers	Unallocated payments changed from 60.00 to 0.00 (reduced by 60.00) due to paying for (Invoice id: 2095)
2021-10-16 00:00	Invoices	Invoice status was changed from 'Partially Paid' to 'Overdue'. The reason of changing status - recalculate/update during periodic 'check_invoices' task execution

Benefit

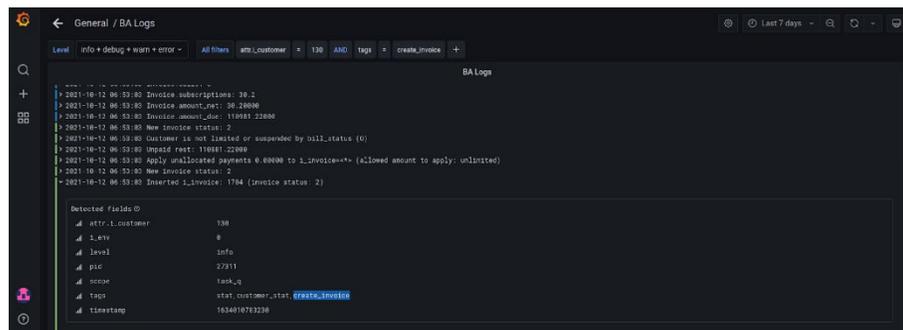
- Administrators can troubleshoot invoice-related issues faster via the PortaBilling® web interface.

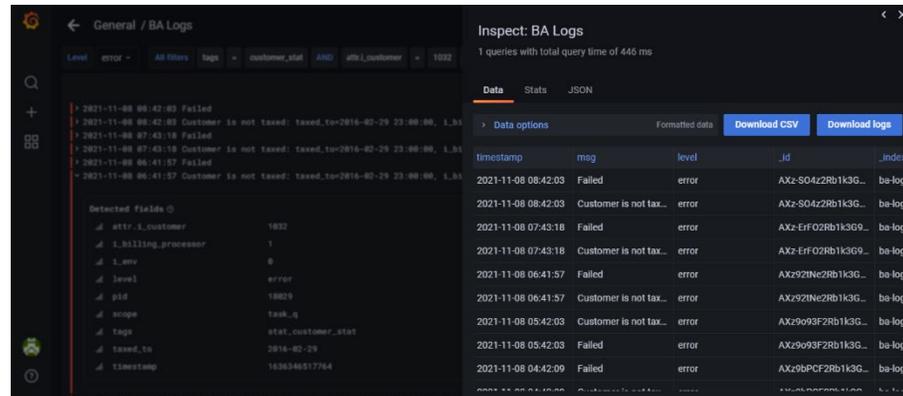
Access to log files for periodic tasks via web interface

Service providers' engineers now have an easier way to access and review periodic task logs such as invoice calculation, taxation, periodic payments, and reports. Previously, it took a lot of time to gather the information from text log files, potentially located across several servers. Now, with the integration with Grafana – an open-source platform for data visualization, monitoring, and analysis – a service provider's team of engineers can access all of them via one web interface.

Grafana is a single entry-point for displaying the periodic task logs (taskstack.log/task_queue.log files) that are collected from all servers and stored in Elasticsearch in JSON format.

Currently, the integration with Grafana allows using a simple dashboard to cover the most common troubleshooting requests: filtering logs, e.g., by customer or environment, reviewing them, and downloading logs in .txt format to submit them to support.





Also, service providers can create their own dashboards, e.g., graphs demonstrating the performance of specific tasks.

Grafana must be deployed on premises. To configure Grafana on your PortaSwitch, contact [PortaOne support](#).

Benefit

- Service providers' engineers can troubleshoot issues related to periodic tasks faster.

Online charging for roaming data via RADIUS

MVNOs with a “RADIUS only” infrastructure provided by their MNO can now charge their subscribers for roaming data in real time. MVNOs provide their subscribers with roaming Internet service when they visit other regions or countries. The country and network are identified by the mobile country code (MCC) and the mobile network code (MNC). With online charging for roaming data, MVNOs can provide their subscribers with roaming prepaid packages without risk of revenue leakage. And postpaid subscribers can avoid bill shock with a clear picture and better control of their roaming expenses.

You can find the information on how to configure PortaBilling® for roaming Internet service based on the country and network in the *Online charging for the LTE service in roaming* chapter in the [PortaBilling Administrator](#) guide.

Benefits

- Online charging for data in roaming decreases the risk of revenue leakage for MVNOs.

- MVNOs with a “RADIUS only” infrastructure provided by the MNO can now provide roaming prepaid packages.
- Online charging for data in roaming prevents bill shock for subscribers. Subscribers receive online notifications about data consumption and low quota alerts.

Other features and enhancements

Full Polish language support for IVR

The Polish language is now fully supported for all Interactive Voice Response (IVR) applications such as voice mailbox, auto attendant, balance information, etc. Service providers can expand their reach to Polish-speaking customers by providing services in their native language, and thus a better user experience. Find the full list of supported IVR applications in the [PortaSIP Media Applications](#) guide.