PORTA ONE

M2M / IOT FOR CSP

PortaSwitch

New Features Guide

71

MAINTENANCE
RELEASE

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Preface

PortaSwitch® Maintenance Release 71 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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Integration with Salesforce CRM

PortaBilling® is now integrated with the Salesforce customer relationship management (CRM) system designed for the automation of business processes. This integration enables your sales team to:

- perform marketing campaigns for PortaBilling® customers via CRM; and
- use all the CRM features that are built into the system – contact and follow up with customers, review history, analyze campaigns, etc.

To create a marketing campaign, your sales manager needs a list of customers that he can contact (e.g. via calls or SMSs). He filters existing PortaBilling® customers using different criteria – country, product, last day of service usage, etc. These selected customers become campaign members. When your sales manager opens a customer profile in Salesforce, the **PortaBilling® details** tab appears and there he can see the payment history, products and service usage details of the customer.

For your sales team's convenience, they can do the following via the CRM, without logging into PortaBilling®:

- access relevant information about customers (e.g. their products, service usage history, invoices and balance), and
- manage customer products and / or add-on products.

Consider the following example:

A sales manager, John Doe, creates a marketing campaign in which he wants to sell international calls to Mexico, already configured in the MegaGo add-on product. To make this happen, he filters for customers who:

- live in the USA;
- use the SuperCall main product;
- do not use the MegaGo add-on product; and

- have spent more than $30 in the last month on voice calls.

When the list of customers is ready, John opens the first customer profile, that of Abigail Curry, and starts the call by offering additional services – 100 minutes of free calls to Mexico (the MegaGo add-on product). Abigail Curry is interested and agrees to pay for a new service. John opens the product configuration page in the CRM and adds the MegaGo add-on product. When he saves the changes, the CRM relays the data to PortaBilling®.

This integration helps boost your sales by organizing your marketing campaigns. In addition, this allows your sales team to manage customer products via the CRM web interface and this ensures they have up-to-date information about your customers' service usage.

# Call control API for custom IVR application

With this release, the call control API has been extended and now provides the ability to operate with custom IVR applications. This functionality is of special interest to call centers, since it permits them to develop their own IVR applications including specific features (e.g. auto attendant to track the status of the parcel.) That introduces their own call processing flow, therefore improving customer interaction. The IVR application communicates with PortaSwitch® via the API and it can be implemented in any programming language.

Consider the following example.

Your customer, a visa processing center, wants to automate the process of providing their users with relevant information such as their visa

application status. To make this happen, they implement an IVR application in Java and store it on their external server. The application can gather user inputs and retrieve the necessary information from the visa center's database. To participate in call processing, the application connects to PortaSwitch® via the API, requests the access number (e.g. 1733355700) and subscribes to call state notifications for that access number.

When Mary Smith dials 1733355700 to call and check her visa application status, the following occurs:
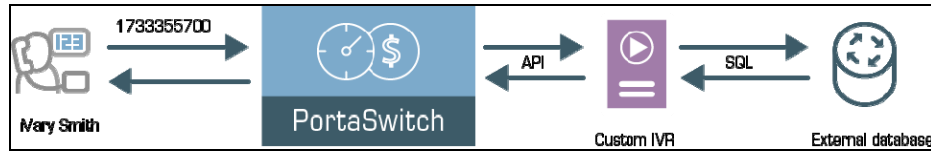
- PortaSwitch® matches the access number (1733355700) and notifies the customer's IVR application about the call.
- The IVR application sends the API request to PortaSwitch® with an instruction to answer the call and provides the path to the prompts.
- PortaSwitch® answers the call and plays a prompt for Mary to enter her registration number, etc.
- PortaSwitch® collects Mary's input and sends it to the IVR application via the API.
- The IVR application retrieves the data from the external database and sends the API request to PortaSwitch® to inform Mary that her visa has been approved.

This feature enables your customers to implement their own IVR applications in the programming language of their choice. Thus, they can manage incoming calls and automate their workflow.

Your benefit comes from being more competitive in the marketplace and therefore, extending your customer base.
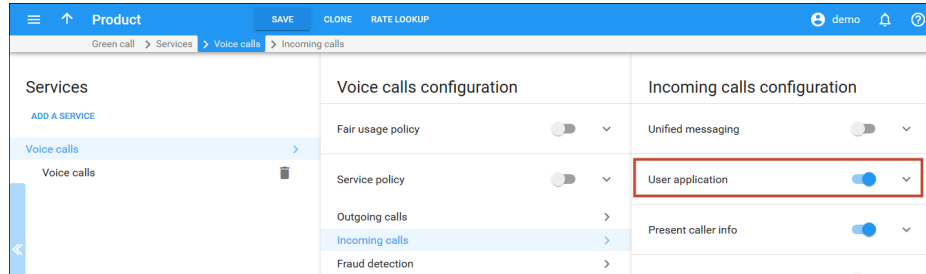
Configuration

To enable the use of a custom IVR application, a PortaSwitch® administrator needs to do the following:
- Create an IVR application of the User Application type.

- Add access numbers that can be used by the application.
- Enable the User application option for the IVR owner account, either explicitly or within the product configuration.


The IVR application owner needs to:

- Develop an IVR application that can communicate with PortaSwitch® via the API.
- Add an access number to the application.
- Subscribe the application to call state notifications for the access number.

Failover for RADIUS proxy

The RADIUS proxy in dual-version PortaSwitch® is used to distribute RADIUS requests across systems based on customer location. This ensures uninterrupted service provisioning during gradual customer migration.

Now you can make the RADIUS proxy redundant to preserve service provisioning if it becomes unavailable (e.g. due to hardware failure). To make this happen, add several RADIUS proxy nodes and then organize them into a cluster. Assign a virtual IP address to the cluster to serve as the communication point for the external RADIUS clients (e.g. NAS).
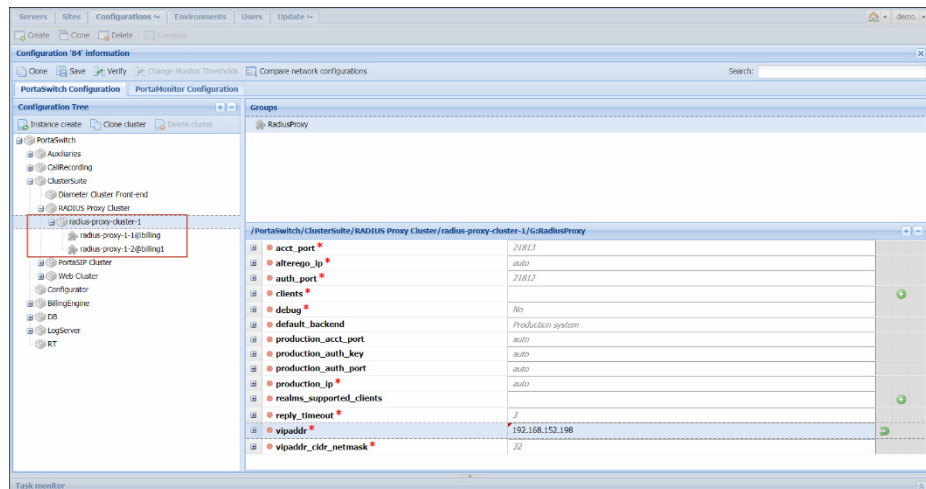
This virtual IP address is shared among all RADIUS proxy nodes though only active on one of them. If, for some reason, the active RADIUS proxy node becomes unavailable, the virtual IP address switches to another node. That node then becomes active and handles RADIUS request processing.

This enhancement adds fault tolerance to the RADIUS proxy service, thus increasing overall system stability.

New Version of Linux

PortaSwitch® Maintenance Release 71 utilizes Oracle Enterprise Linux version 7.5.

Oracle Enterprise Linux version 7.5 includes a new version of kernel and an updated collection of applications that offer the following benefits:
- Faster performance.
- Straightforward administration.
- Advanced reliability.

Other features and enhancements

- **Define access code prefix for the Prepaid card IVR** – Now you can group all of the access numbers that you provide for prepaid card calling under a single rating entry within a product. This significantly simplifies product configuration and saves you from having to enter separate rating entries for every access number.

  To illustrate how this works, consider the following example:

  Let's say that you operate within the USA and sell international calling cards with local access numbers in several states (e.g. 12125551111, 16015551111, and 12015551111). When a call arrives to one of these access numbers, PortaBilling® uses this number to authorize a call and then charge a user.

  With this release, an administrator can set a **grouping access code prefix** (e.g. USA) for the prepaid card calling IVR application. The system then adds this prefix to the access number (e.g. USA.12125551111) when a call arrives.

PortaBilling® authorizes calls by matching the longest access code (e.g. USA). So now, an administrator can add just a single rating entry for the product's usage charges instead of having to add a separate one for each access number.

This enhancement speeds up product configuration and therefore saves an administrator's time.

- **Porter enhancements** – This release introduces enhancements to the Porter data transfer tool; they are especially beneficial if you migrate customers in batches:
  - o **Parallel processing mode for data migration.** Now Porter can migrate several customers in parallel. This allows you to increase data migration performance.

    To enable parallel processing for Porter, the number of threads for data migration must be defined in the Porter configuration. This maximum thread number depends on the server's processing capacity and the load caused by other operations running on that same server. Please contact PortaOne Support to evaluate the number of threads available for Porter in your installation.
  - o **Terminated customers are not migrated by default.** If, during the data migration process, a customer is terminated, Porter ignores this customer record and leaves it in the main system. This facilitates data migration.
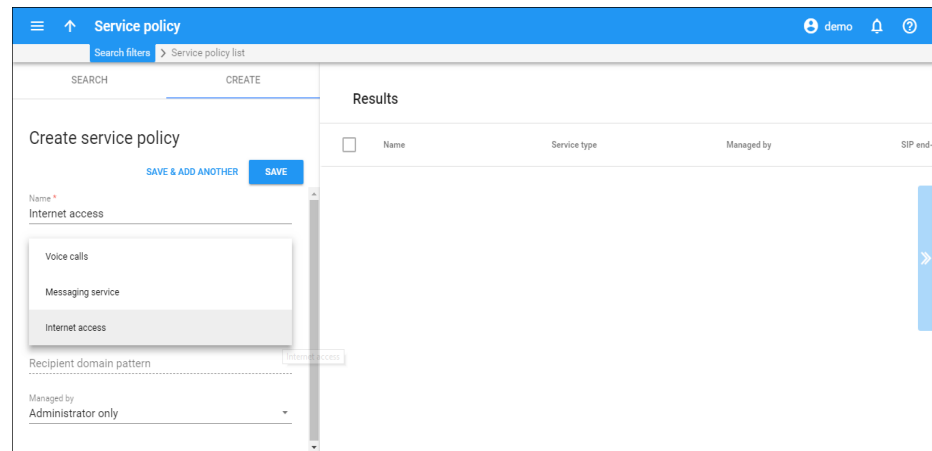
Web interface changes

- **Adjust the interval for call queue announcements** – With this release, your IP Centrex customers (e.g. call center owners) can change the interval between call queue announcements on their self-care portal. This interval defines how often the system

informs callers about their place in the queue and the estimated wait time until someone attends to them.

This enhancement allows customers to fine-tune call queues according to the peculiarities of their business (e.g. average call duration, number of operators, etc.).

- **Predefined auto attendant service feature in a product –** With this release, the auto attendant service feature is enabled by default on products with an auto attendant account role. This speeds up service configuration and improves user experience.

- The **localization for Brazilian Portuguese has been updated** for customer and account self-care portals. This increases customers' satisfaction with PortaSwitch®.

- **Single page for service policy creation** – Previously, the administrator created service policies for Voice calls, Messaging and Internet access services on separate pages.

  With this release, all service policies are created and stored on a single dedicated page.

The attributes are configured separately for each service policy, depending upon the service type.

This enhancement simplifies navigation on the web interface.

- **Create a tariff from within a product configuration** – If you have not created a tariff, now you can do it while configuring a product. Simply type the tariff name into the **Add a new tariff** dialog window and click **Save.** The new tariff automatically inherits all of the product configuration options such as service, currency and to whom it applies (customer or reseller).
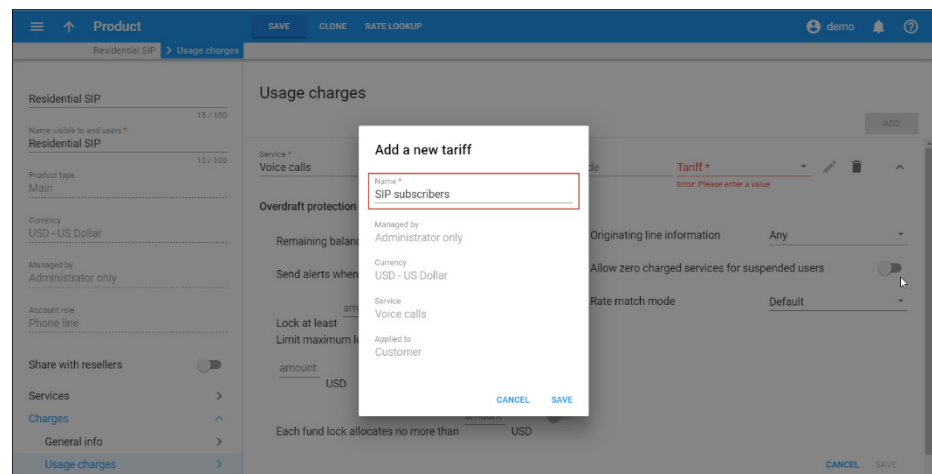
This enhancement speeds up the service configuration process since even if a tariff is missing, it can be added on the spot. This increases users' overall experience with PortaBilling®.

Important upgrade notes

- **TLSv1.1+ as the default security type for PortaSIP®** – SSL and TLS protocols are used to secure communications among applications over the Internet. In PortaSIP**®**, TLS is used to encrypt communications between PortaSIP**®** and a SIP end-point to prevent their communications from being intercepted.

  To meet the PCI requirements regarding security, the PortaSIP**®** dispatching SBC and dispatching nodes now use TLSv1.1 and TLSv1.2 as default protocols for SIP signaling encryption.

  For this reason, your user and vendor equipment must support TLSv1.1+ for calls over TLS service provisioning.

  For backward compatibility, the legacy SSLv3 and TLSv1.0 protocols are still available in PortaSIP**®**. Thus, to preserve their use (e.g. if your vendor or user devices do not yet support TLSv1.1), adjust the **sip_ports_tls** option value on the Configuration server as follows:
    - 5070:example.com::1 to enable the SSLv23. This is the compatibility mode, which includes support for TLSv1.0, TLSv1.1, TLSv1.2 and SSLv3 protocols.
    - 5070:example.com::2 to enable only the TLSv1.0.
  where example.com is the domain name of your PortaSIP**®** or dispatching SBC. This value is mandatory.