



PortaSwitch New Features Guide

MAINTENANCE RELEASE 89

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Table of Contents

Preface	4
Sale discounts for commitments.....	5
Making calls to mobile phones via PortaPhone	8
Smart Contacts feature to display PortaPhone users.....	11
Passing number portability parameters in outgoing calls.....	12
Other features and enhancements	14
<i>Waiving subscription fee when no service was provided depending on the billing period.....</i>	<i>14</i>
<i>Ability to provide PortaPhone services to both corporate and individual users, simultaneously</i>	<i>17</i>
Web interface changes.....	17
<i>Set the bandwidth upload/download rates in Gbps.....</i>	<i>17</i>

Preface

PortaSwitch® Maintenance Release 89 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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Sale discounts for commitments

With the commitments feature, service providers can offer services with discounts for set periods of time. This release allows service providers to grant additional discounts, called Sale discounts, to encourage hesitant customers to sign up for a long-term commitment. Sale discounts may cover multiple periods, each with a different discount level.

For example, Panda telecom offers the IPTV service at a standard price of \$25 per month. If customers sign up for a 24-month commitment, they pay \$20 monthly.

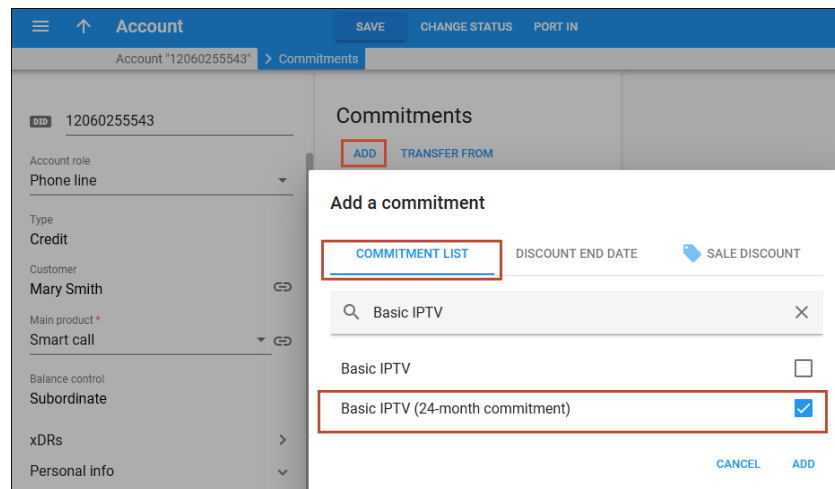
On November 20, Mary Smith contacts her service provider to sign up for the IPTV service. The sales manager offers Mary the Basic IPTV package for \$25 per month without commitment and the Basic IPTV package for \$20 per month, if she signs up for a 24-month commitment. Mary is not eager to pay even \$20 monthly and decides to think it over. To encourage Mary to sign up for a Basic IPTV commitment right now, the sales manager offers the following discounts:

- The first 3 months will have a \$15 per month discount. The monthly rate is \$5.
- The next 6 months will have a discount of \$8 per month. The monthly rate is \$12.
- Each following month will be \$20 per month.

Mary agrees and signs up for the Basic IPTV commitment on November 20, 2020.

To define the sale discounts, the sales manager performs the following steps:

- Opens the Mary Smith's **Account > Finances > Commitments**.
- Clicks **Add** and selects the **Basic IPTV (24-month commitment)** from the commitment list.



- Selects **Sale discount** tab.
- Clicks **Add+** to add sale discount periods.
- Sets 3 months for a **discount period** and a \$15 **sale discount**, clicks **Add+**.
- Sets 6 months for a **discount period** and an \$8 **sale discount**,
- Clicks **Add** and **Save**.

Add a commitment

COMMITMENT LIST DISCOUNT END DATE **SALE DISCOUNT**

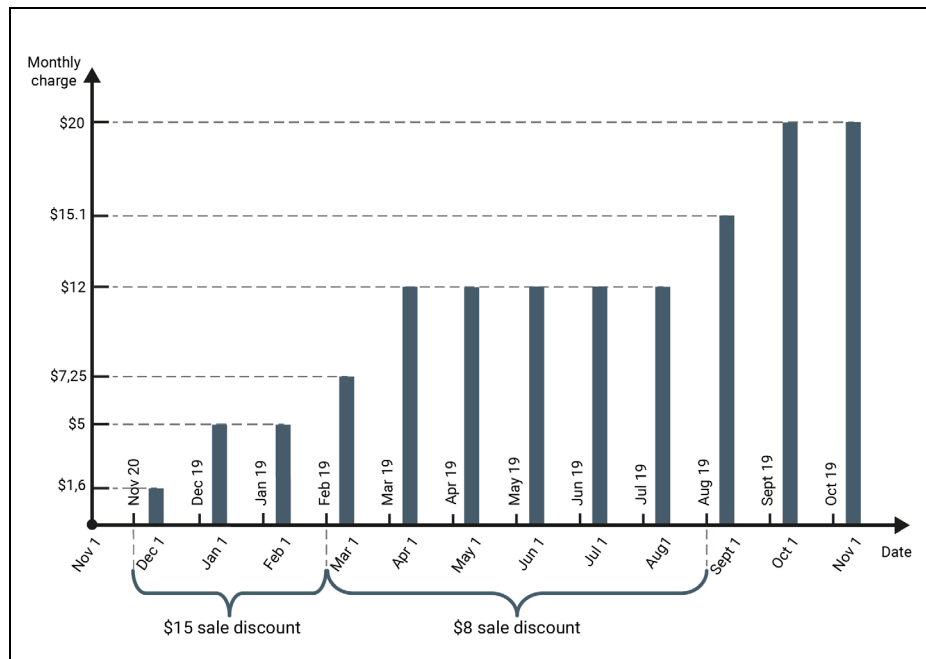
Basic IPTV (24-month commitment)

Basic IPTV

Number of monthly intervals *	Sale discount, USD per interval *
3	15
Discount last day is 2021-02-25	
Number of monthly intervals *	Sale discount, USD per interval *
6	8
Discount last day is 2021-08-25	

CANCEL **ADD**

The configured sale discount schema is illustrated by the following diagram:



Date	Description
November 20	Mary Smith signs up for the Basic IPTV commitment.
December 1	Mary receives the November invoice with its \$1.6 total – the prorated fee of \$6.6 for the 10 days of service usage in November minus a \$5 prorated sale discount.
January 1, February 1	Mary is charged \$5 for December and January.
February 19 (3 months have passed)	February 19 is the last day when the \$15 sale discount applies.
February 20	The next sale discount of \$8 applies.
March 1	Mary receives the February invoice with its \$7.25 total: \$20, the standard price for the Basic IPTV package, minus a \$10.18 prorated sale discount for the 19 days of service usage in February (\$15 first level sale discount is prorated), and minus \$2.57 prorated sale discount for the 9 days of service usage in February (\$8 second level sale discount is prorated).
April 1-August 1	The following months Mary is charged \$12 per month, with a discount of \$8.
August 19 (6 months have passed)	The sale discount of \$8 ends.
August 20	The standard price of \$20 applies.
September 1	Mary receives the August invoice with its \$15.1 total: \$20 the standard price for the Basic IPTV package minus a \$4.9 prorated sale discount for the 19 days of service usage in August (\$8 second level sale discount is prorated).
October 1	Mary is charged \$20 for September.

If Mary Smith cancels her two-year Basic IPTV commitments after 12 months of usage, she pays a \$153 penalty, which is the sum of all the discounts provided since she signed up for the commitment: \$93 for the

sale discount plus the \$60 commitment discount for her 12 months of service usage.

Important conditions

1. Sale discounts can be set only during commitment assignment to the account. When the commitment is assigned, sale discounts and their periods can't be changed or removed.
2. Sale discounts can be applied only to recurring fees.
3. When customers sign up for a commitment in the middle of a billing period, the sale discount is prorated by default.
4. The sale discount period can be bigger than the standard commitment discount period.

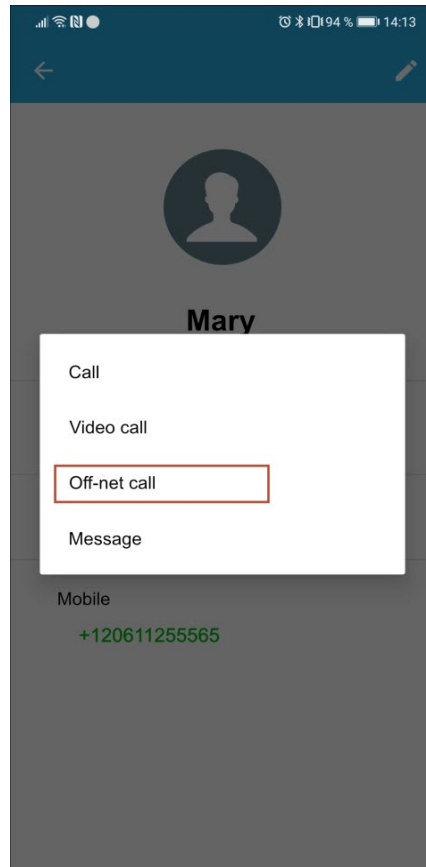
Benefits

- Service providers have a flexible tool to convince customers to sign up for long-term commitments.
- Customers get the same service at a lower price.

Making calls to mobile phones via PortaPhone

With this release, communication service providers (CSPs) that launch a WhatsApp-like mobile application based on PortaPhone can enable users to make either app-to-app or app-to-mobile calls. App-to-mobile means a call made via the app to another user's mobile phone.

For example, John and Mary use the PortaPhone mobile app. Via the app, they can call each other for free using an Internet connection. If Mary has no Internet connection, John can't reach her when making an app-to-app call, so John calls her mobile phone. To do that, he taps and holds Mary's contact on his contact list. Next, he selects "Off-net call" in the pop-up menu to initiate an app-to-mobile call. The call goes through and Mary picks up the phone.



Specifics:

1. When a user signs up for the app using their mobile number, their account in PortaBilling® is automatically provisioned with a DID number (that serves as an account ID) that is associated with their mobile number.
NOTE: DID numbers must be previously uploaded to the DID/MSISDN inventory and assigned a specific pricing batch.
2. The DID number is used as a caller ID in both app-to-app and app-to-mobile calls.
3. CSP can optionally configure the automated call forwarding from the DID number to the mobile number. Therefore, if a call goes to the DID number, and the app is unavailable, e.g., no Internet connection, the call automatically forwards to the mobile phone number.

NOTE: When forwarding is enabled for a user, the user is charged for the call forwarded to their mobile number according to their tariff.

Benefits

CSPs that launch a mobile application can offer their users to take advantage of on-net communications and be able to call each other off-net to their mobile phones.

Configuration

To enable this feature for PortaPhone users, configure the provisioning in PortaBilling® and the PortaPhone app via the Acrobits' web-portal:

1. In PortaBilling®, make sure that DID numbers are available in the DID/MSISDN inventory: released to the pool, assigned to a specific pricing batch, and not yet in use.
2. Configure the Acrobits signup on the Configuration server.

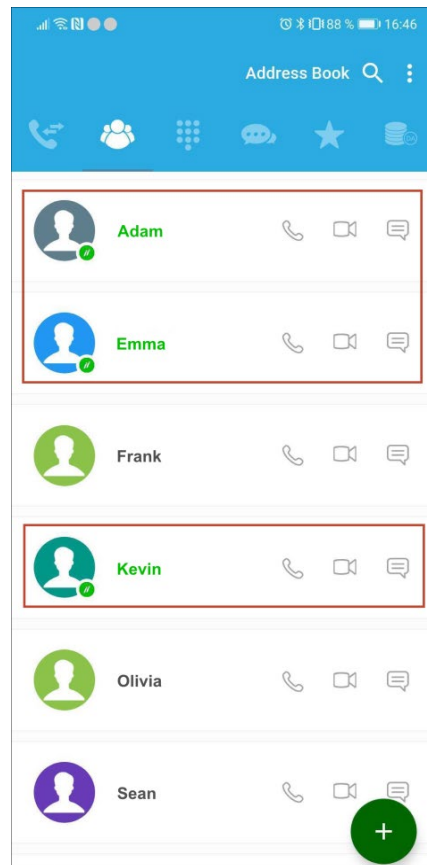
Attribute	Description
AdvancedSignupDidModeEnabled	Set Yes to enable provisioning for the Acrobits app with DID numbers.
DidOwnerBatchName	Specify the name of a pricing batch from which to assign DID numbers when creating new accounts. The account ID is the same as the DID number.
AliasRealm	Specify the realm to be used for account aliases. For each account, an alias is created with an ID that is the same as the “mobile number@realm” as a postfix.
OriginPhoneForwarding	Optionally enable forwarding from a DID number to a mobile phone when the app is unavailable.

3. On the Acrobits web-portal:
 - Configure the dialing options for app-to-app and app-to-mobile calls (e.g., “Call” and “Off-net call”) in the PortaPhone app interface.

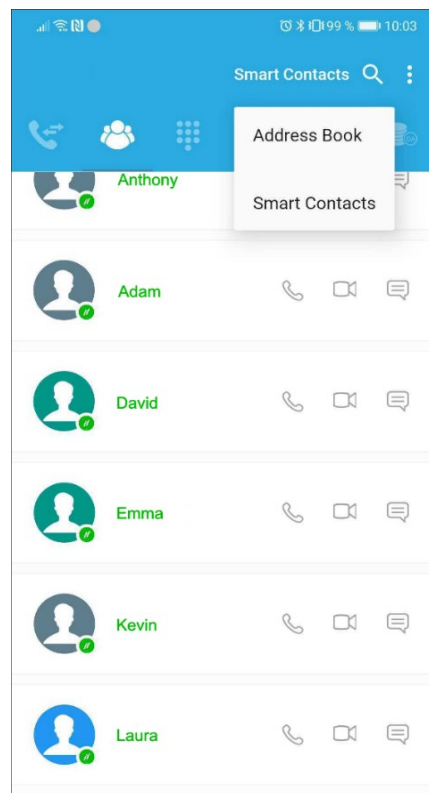
Smart Contacts feature to display PortaPhone users

Communication service providers (CSPs) that launch a WhatsApp-like mobile application based on PortaPhone can now provide users with the Smart Contacts feature.

The Smart Contacts feature displays the contacts in the address book of those who use the same app and can be reached app-to-app. In the address book, PortaPhone users are indicated by color and icon.



Also, all the PortaPhone users from an address book are listed separately in the Smart Contacts tab.



To clarify, let's say that John installs the PortaPhone app, signs up, and opens the Smart Contacts tab to see which contacts he can now call for free. John sees that his friend Adam also uses PortaPhone, so with a single tap, John makes an app-to-app call to Adam. When someone from John's address book starts to use PortaPhone, their contact is automatically added to the Smart Contacts list and highlighted in the general address book.

The Smart Contacts tab is only available if at least one of the user's contacts also uses PortaPhone.

This feature allows PortaPhone users to quickly see which of their contacts also use PortaPhone.

Passing number portability parameters in outgoing calls

In some countries, for example, the Dominican Republic, service providers are obliged to pass number portability parameters when initiating outgoing domestic calls. The vendors are allowed to drop calls that do not contain number portability parameters. This can negatively influence the quality of service provided to customers and reduce

customers' satisfaction. Thus, service providers could lose customers and suffer financial losses.

With this release, PortaSip® can add number portability parameters **npdi** (number portability database dip indicator) and **rn** (routing number) to outgoing calls. The vendor can define that a number lookup in the PortaSwitch® local ported numbers database is made and whether that number is ported.

The parameters of number portability are as follows:

- **npdi** – This indicates that number lookup in the PortaSwitch® local ported numbers database was made.
- **rn** – This defines a target prefix used instead of originally dialed number to authorize, rate, and route the call. It contains the value defined in the `origin` field in the `Number_Portability` table.

If the call is to be routed to a non-ported number, PortaSIP® adds an **npdi** parameter to the outgoing INVITE request. If the call is to be routed to a ported number, PortaSIP® adds both an **npdi** and an **rn** parameter with the value defined in the `origin` field in the `Number_Portability` table.

This is how it works:

Let's say a service provider enables local number portability functionality in PortaSwitch® and imports the list of ported numbers to the database of local ported numbers in PortaSwitch®.

For example:

destination	origin (routing number)	Prefix used for routing and charging
18295550000 (Claro)	18097262222 (Viva)	1809726
18295551111 (Claro)	18097263333 (Viva)	1809726

Also, the service provider enables PortaSIP® to pass the number portability parameters in the outgoing INVITE requests.

For example:

The service provider's customer, John Doe, makes a call to **18295550000**. This number originally belonged to the mobile operator Claro, but has been recently ported to another operator, Viva. The billing engine looks up the number in the local ported numbers database in PortaSwitch® and discovers that **182955500000** now belongs to Viva. For this reason, **18097262222** must be used for further routing and the call must be

charged according to Viva's rates. Thus, PortaSIP® passes number portability parameters in the outgoing INVITE request like this:

```
INVITE sip:
18295550000;rn=18097262222;npdi=yes@190.123.72.1:5060;user=
phone SIP/2.0.
```

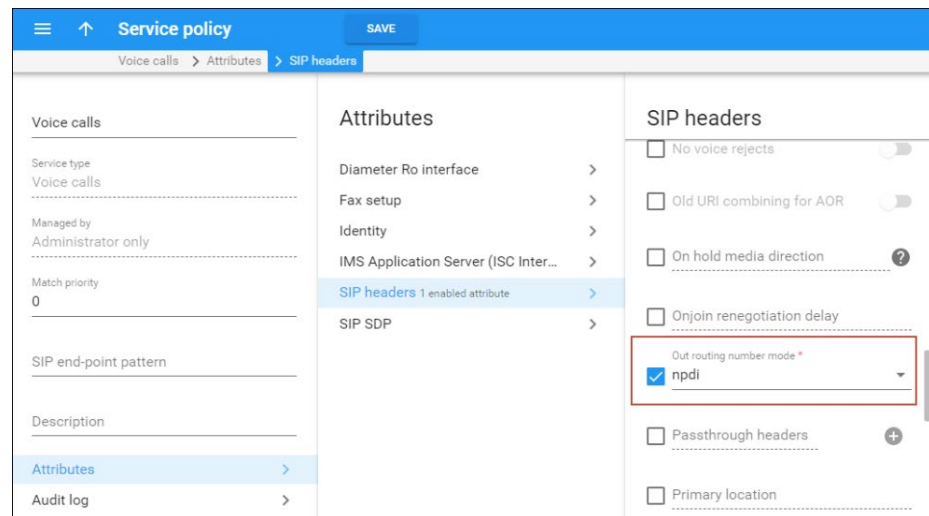
Benefits:

- Service providers comply with local regulations.
- Service providers can provide their customers with good quality service (domestic calls) and thus suffer no financial losses.

Configuration:

To enable PortaSIP® to pass the number portability parameters during the outgoing call, open your service policy for voice calls and do the following:

1. On the **Attributes** panel, select **SIP headers**.
2. On the **SIP headers** panel, check the box next to the **Out routing number mode** option and select **npdi** from the list.
3. Click **Save** on the toolbar.



Other features and enhancements

Waiving subscription fee when no service was provided depending on the billing period

If market conditions or local regulations require that customers not be charged when they don't have access to the service, then service providers must configure subscription plans accordingly. To do that, service providers can choose to not charge a subscription fee for the days when a

customer can't use the service (due to service suspension, block, having exceeded credit limit, etc.). Now it's possible to configure this option for the first, last, and regular billing periods separately.

Let's consider the example of service provider ABC, which resells their partner's IPTV services to end users for a monthly subscription fee.

The content provider charges ABC a full monthly fee no matter if an ABC customer cancels the subscription or has no access to the service. To cover the cost, ABC always charges customers a full fee for the first month of the subscription, even if a customer cancels the subscription earlier. If a customer was suspended or blocked during the first month of the subscription, charges still apply for those days. This allows ABC to prevent revenue leakage, for example, in situations when a customer signs up for an expensive IPTV subscription only for the days of sports competitions and cancels it once a favorite team is eliminated or the competitions end.

However, to encourage customers who don't cancel the subscription to continue using the services after suspension or block, ABC doesn't apply subscription charges for the days when no service was available during regular billing periods.

By default, the **Waive the charges for the days when no service was provided** option is enabled for all billing periods. To apply charges in full in the first and last billing period, the administrator goes to **Subscription plans > General configuration >** and clears the checkboxes for the first and last billing periods.

The screenshot displays the 'Subscription plan' configuration page for 'TV Basic'. The left sidebar lists configuration sections: 'TV Basic', 'General configuration', and 'Fees'. The 'General configuration' section is active and shows the following settings:

- Subscription plan name visible to end users: TV Basic
- Currency: USD - US Dollar
- Managed by: Administrator only
- Subscription charges applied: At the end of the billing period
- Activation mode: At the given start date
- Share with resellers: (toggle off)

The 'General configuration' panel on the right includes the following options:

- Waive the charges for the days when no service was provided** (highlighted in a red box):
 - First billing period
 - Regular billing period
 - Last billing period
- Can be applied more than once:
- Description: (empty text field)

The ability to configure this option for the first, last, and regular billing periods separately is available for subscriptions charged **At the end of the billing period** or **In advance** and is not available for **Progressive** (daily) subscriptions.

NOTE: If a customer signs up for a commitment and temporarily pauses the service for a specific period, subscription charges don't apply for this period, regardless of the **Waive the charges for the days when no service was provided** option configuration.

With this enhancement, service providers can adjust subscriptions to their business requirements. To retain customers who become suspended or blocked and encourage them to continue using the service, service providers can exclude charges for the days when no service was provided. At the same time, to balance the cost and revenue side while reselling the partner's services on a recurring fee basis, they can charge customers in full during some billing periods.

Ability to provide PortaPhone services to both corporate and individual users, simultaneously

Now, upon PortaPhone installation, users can be authenticated using SMS or email. After an administrator creates accounts for corporate (IP Centrex) users they can download the app and sign up using a one-time password received via email. Individual users who sign up using their mobile number receive a one-time password via an SMS.

With this enhancement, CSPs can offer PortaPhone to both corporate and individual users at the same time.

Web interface changes

Set the bandwidth upload/download rates in Gbps

With this release, you can define the bandwidth upload/download rates in the Internet access policy in Gbps. Rates are available in Gbps, in addition to bps, kbps, and Mbps. This enhancement simplifies the bandwidth management for the administrator.

