



Outbound Routes

User Guide

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Overview

Outbound routing is a set of rules that the PBX uses to decide which trunk to use for an outbound call. Having multiple trunks allows you to control cost by routing calls over the least costly trunk for a particular call.

Outbound routes are used to specify what numbers are allowed to go out a particular route. When a call is placed, the actual number dialed by the user is compared with the dial patterns in each route (from highest to lowest priority) until a match is found. If no match is found, the call fails.

If the number dialed matches a pattern in more than one route, only the rules with the highest priority in the route are used.

“Outbound Route Dial Patterns” can be used to strip off leading digits before passing them to a trunk. This is most useful if you use a specific dialing code to access a particular route. For example, “9” to access an outside line.

Logging In

- Log into the Outbound Routes module and you should see a screen like this. There are five sections to the module.

Add Route

Route Settings

Route Name: ?	<input type="text"/>	
Route CID: ?	<input type="text"/>	<input type="checkbox"/> Override Extension ?
Route Password: ?	<input type="text"/>	
Route Type: ?	<input type="checkbox"/> Emergency <input type="checkbox"/> Intra-Company	
T38-Gateway Enabled: ?	<input type="button" value="Yes"/> <input type="button" value="No"/>	
Music On Hold? ?	<input type="text" value="default"/>	
Time Group: ?	<input type="text" value="---Permanent Route---"/>	
Route Position: ?	<input type="text" value="Before Fax"/>	

Add Route
↕ International
↕ Fax
↕ Integrity
↕ Cell-Phones
↕ Schmooze
↕ FreePBX-Support

Configuring Outbound Routes

- Once logged we can add outbound routes by defining the following fields.
 - **Route Settings**

Add Route

Route Settings

Route Name: ?	<input type="text"/>	
Route CID: ?	<input type="text"/>	<input type="checkbox"/> Override Extension ?
Route Password: ?	<input type="text"/>	
Route Type: ?	<input type="checkbox"/> Emergency <input type="checkbox"/> Intra-Company	
T38-Gateway Enabled: ?	<input type="button" value="Yes"/> <input type="button" value="No"/>	
Music On Hold? ?	<input type="text" value="default"/> ▼	
Time Group: ?	<input type="text" value="---Permanent Route---"/> ▼	
Route Position: ?	<input type="text" value="Before Fax"/> ▼	

- **Route Name**- This is used to identify the current route. It can't contain any spaces. The name is usually descriptive for example, "local" or "international."
- **Route CID**- Optional route CID to be used for this route. If set, this will override all CIDs specified except:
 - Extension/device EMERGENCY CIDs if this route is checked as an EMERGENCY route type
 - Trunk CID if trunk is set to force it's CID
 - Forwarded call CIDs (CF, Follow Me, Ring Groups, etc)
 - Extension/user CIDs if checked
- **Route Password**- (OPTIONAL) A route can prompt users for a password before allowing calls to progress. This is useful for restricting calls to international destinations or 1-900 numbers. A numerical password or the path to an authenticate password file can be used. Leave this field blank to not prompt for a password.
- **Route Type**-
 - **Emergency**- (OPTIONAL) Selecting "Emergency" will enforce the use of a device's Emergency CID setting (if set). Select this option if the route is used for emergency dialing (ie: 911).
 - **Intra-Company**- (OPTIONAL) Selecting "Intra-Company" will treat this route as an intra-company connection, preserving the internal caller ID information instead of the outbound CID of either the extension or trunk.
- **Music On Hold**- You can choose which music category to use. For example, choose a

type appropriate for a destination country which may have announcements in the appropriate language.

- **Time Group**- If this route should only be available during certain times then select a time group created under the Time Groups module. The route will be ignored outside of times specified in that time group. If left as default, "Permanent Route," then it will always be available.
- **Route Position**- Where to insert this route or relocate it relative to the other routes.

Additional Settings

Additional Settings

+ Extension Routing: ?

PIN Set: ?

None ▾

Call Limit: ?

None ▾

Notification: ?

None ▾

- **+Extension Routing**- This section is collapsed by default, so click on the "+" to expand it.
 - Once expanded, we can now see on the right side which extensions are blocked from using this route and on the left side we can see which extensions are allowed to use the route. You can drag any extension from either the blocked or allowed section to the other extension using your mouse.

Additional Settings

+ Extension Routing: ?

Allowed Extensions ?

1000 (CGN3's)
2000 (Moshe Brevda KX-UT670)
2001 (Moshe Brevda 6753i)
2002 (Moshe Soft Phone)
2003 (Moshe Soft Phone)
2004 (Moshe 9143i)
2005 (Moshe 6731i)
2006 (Moshe 9133i)
2007 (Moshe VP530)

Blocked Extensions

4007 (Philippe Lindheiner)

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- In our example, the only blocked extension is “4007-Philippe Lindheiner.” We will drag this extension to the “Allowed Extensions” list and bring “100-CGN#” to the “Blocked Extensions” list.

Additional Settings

+ Extension Routing: ?

Allowed Extensions ?

2000 (Moshe Brevda KX-UT670)
2001 (Moshe Brevda 6753i)
2002 (Moshe Soft Phone)
4007 (Philippe Lindheiner)
2003 (Moshe Soft Phone)
2004 (Moshe 9143i)
2005 (Moshe 6731i)
2006 (Moshe 9133i)
2007 (Moshe VP530)

Blocked Extensions

1000 (CGN3's)

- When creating a new outbound route, the default is for it to include all extensions in the route. You can drag any extensions to the “Blocked Extensions” list when creating a route.
- Any route that is blocking an extension will also block that extensions “Follow Me” and call forward number from using that outbound route. Other things, such as a ring group with an external phone number, will still be able to use the route. This is only an allow/block list for extensions of the PBX. You can also block outbound routes in the Extensions module. Both places show the same data.
- **Pin Set-** (OPTIONAL) Select a pin set to use. If using this field, leave the route password blank. Pin sets are used to manage lists of PINs that can be used to access restricted features. The PIN can also be added to the CDR record’s “accountcode” field. Use the Pin Set module to create pin sets. Pin requirements for outbound routes can also be overridden in the Extensions module on a per extension basis.
- **Call Limit-** Limits the number of calls that can be made using this route over a specified time period. Outbound call limits are defined in the Outbound Call Limit module or at the extension level.
- **Notification-** Please note the Notification option will not be available until after you submit and save the route. The purpose of the Notification option is to be able to setup the ability to notify a group of phones when a user uses this outbound route. Any existing page group can be linked to this route. When a call is placed, a page will go out to the page group notifying them of what number was dialed and what user dialed the number. Any user of the page group can then dial “*1” to barge into the call to listen and speak. Notifications would also be for emergency routes, such as 911.

◦ Dial Patterns That Will Use This Route

Dial Patterns that will use this Route 

+ | [] / 

+ Add More Dial Pattern Fields

Dial patterns wizards:  (pick one) 

- **Dial Patterns**- A dial pattern is a unique set of digits that will select this route and send the call to the designated trunks. If a dialed pattern matches this route, no subsequent routes will be tried. If time groups are enabled, subsequent routes will be checked for matches outside of the designated time(s).
 - **X = Any whole number from 0-9**
 - **Z = Any whole number from 1-9**
 - **N = Any whole number from 2-9**
 - **[###] – Any whole number in the brackets. Note that multiple numbers can be separated by commas and ranges of numbers can be specified with a dash ([1.3.6-8]) would match the numbers 1,3,6,7 and 8.**
 - **. = It matches one or more characters and (acts as a wildcard).**
 - **Prepend**- Digits to prepend to a successful match. If the dialed number matches the patterns specified by the subsequent columns, then this will be prepended before sending to the trunks.
 - **Prefix**- Prefix to remove on a successful match. The dialed number is compared to this and the subsequent columns for a match. Upon a match, this prefix is removed from the dialed number before sending it to the trunks.
 - **Match Pattern**- The dialed number will be compared against the prefix + this match pattern. Upon a match, the match pattern portion of the dialed number will be sent to the trunks.
 - **CallerID**- If caller ID is supplied, the dialed number will only match the prefix + match pattern if the caller ID being transmitted matches this. When extensions make outbound calls, the caller ID will be their extension number and NOT their outbound CID. The above special matching sequences can be used for caller ID matching similar to other number matches.
- **Dial Patterns Wizards**- These are pre-constructed dial patterns. Selecting the name of one of the pre-made patterns will populate the **Dial Pattern Fields**.
 - **Emergency**- Dedicate a route just for this purpose. Calls for emergency services should never be mangled by another dial pattern.

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() + | [] /] 

- **International-** Calls outside of the country, if permitted.

() + | [] /] 

- **Toll-Free-** Calls to toll-free numbers, such as 1-888 or 1-800.

() + | [] /] 

() + | [] /] 

() + | [] /] 

- **Long Distance-** Calls outside of the local calling area, if permitted.

() + | [] /] 

- **Local- Calls to local numbers.**

() + | [] /] 

() + | [] /] 

- **Special-** Calls such as operator (0) and directory assistance (411).

() + | [] /] 

() + | [] /] 

- **Lookup Local Prefixes-** This looks up your local number on www.localcallingguide.com (available for North America only). It sets up so you can dial 7, 10 or 11 digits (5551234, 9205551234, 19205551234) to access this route.

- **Disclaimer-** The information on this wizard comes from a variety of sources and is not guaranteed to be 100% complete or correct. For authoritative information, please consult the appropriate company or trunk provider.

What is your areacode + prefix (NPA-NXX)?

(Note: this database contains North American numbers only, and is not guaranteed to be 100% accurate. You will still have the option of modifying results.)

This may take a few seconds.

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- **Upload from CSV-** Upload patterns from a CSV file replacing existing entries. If there are no headers, then the file must have 4 columns of patterns in the same order as in the GUI. You can also supply headers for prepend, prefix, and match pattern. Also, caller ID in the first row. If there are less than 4 recognized headers, the remaining columns will be blank.

Dial patterns wizards: 

Upload from CSV 

Choose File

No file chosen

- **Trunk Sequence for Matched Routes-** The trunk sequence controls the order of trunks that will be used when the above dial patterns are matched. For dial patterns that match long distance numbers, for example, you would want to pick the lowest cost route for long distance, followed by more expensive routes.

Trunk Sequence for Matched Routes 

0 

1 

2 

- **Outbound Route Priority-** All existing routes are listed on the right hand side of the screen in the order they are processed. You can drag and drop this order by clicking on the arrows and rearranging the priority of the given routes.



- Make sure to press the “Submit Changes” button when done. You can also create a duplicate route by clicking the “Duplicate Route” button.

Submit Changes

Duplicate Route

- **Tips-** You will want to make sure you define routes for all types of calls. Not defining a route can leave your users frustrated when they need to make an important call.
- Outbound dial rules work in conjunction with trunk dial rules. Trunk dial rules are **ONLY** used for adding numbers to, or subtracting numbers from the number being sent to the trunk. Trunk dial rules are never used to allow or restrict numbers that may be dialed. See the Trunk module user guide for additional information.



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