

Grandstream Networks, Inc.

**How to Manage Inbound/Outbound Routes**



# INTRODUCTION

This article explains how to configure and manage outbound and inbound routes on the IPPBX.

Outbound routes define how the system processes calls placed from internal extensions or features (such as IVR, DISA, or call forwarding) to external destinations. The guide describes how permissions, source Caller ID controls, and route-specific rules determine which users are allowed to dial out and which trunks are used.

Inbound routes define how external calls entering the IPPBX are matched and delivered to internal destinations. The guide explains how DID patterns and route rules determine where incoming calls are routed and how unmatched calls are handled.

The article also covers Caller ID and Direct Outward Dialing (DOD) configuration, including how Caller ID priorities work when Caller ID values are defined in multiple places. Finally, it introduces options that affect call presentation and routing behavior, such as DID Mode and Prepend Trunk Name.

## MANAGING OUTBOUND ROUTES

### Configuring Outbound Routes

Outbound routes define how the IPPBX processes calls from internal users or features (extensions, IVR, DISA, call forwarding) to external destinations. Each outbound route consists of one or more dial patterns linked to one or more trunks. When a user dials a number that matches a pattern, the system selects the corresponding route and places the call using the configured trunk.

Outbound routes also enforce dialing permissions, Caller ID rules, failover behavior, and various time and usage controls. To manage outbound routes, go to **Web UI→Extension/Trunk→Outbound Routes**.

| Outbound Routes                                                                                                                                                                                                                                                                                                |          |               |                                  |                 |                                   |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|----------------------------------|-----------------|-----------------------------------|---------|
| An outgoing calling rule associates an extension pattern with a trunk used to dial the pattern. This allows different patterns to be dialed through different trunks. A failover trunk can be set up to be used when the primary trunk fails. Note: This panel only manages individual outgoing calling rules. |          |               |                                  |                 |                                   |         |
| Add Delete Scheduled Sync Outbound Blocklist PIN Groups Failover Trunk Toggles Carrier Import Export                                                                                                                                                                                                           |          |               |                                  |                 |                                   |         |
| All Levels Q Name/Outbound Number Matc...                                                                                                                                                                                                                                                                      |          |               |                                  |                 |                                   |         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                       | Priority | Name          | Outbound Number Matching Pattern | Privilege Level | Total Time for Outbound Calls (m) | Options |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                       | 1        | OUT_LCR       | .06xxxxxxxx                      | Internal        | Unlimited                         |         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                       | 2        | OUT_MTEL_Code | .333#06xxxxxxxx                  | Internal        | Unlimited                         |         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                       | 3        | OUT_UCMB      | .1x                              | Internal        | Unlimited                         |         |

Total: 3 1 10 / page Geto

Outbound Routes Page

The overview page displays all configured outbound routes, including route name, dial pattern summary, assigned trunk, and status. From the overview page you can:

- **Add** a new outbound route
- **Edit** existing routes
- **Delete** single or multiple routes
- **Import/Export** routes using CSV or XLSX files

The following subsections explain each option in detail and describe how the settings interact during call processing.

### Outbound Permission

Outbound Permission controls which callers are allowed to use a specific outbound route and whether authentication is required.

When creating or editing an outbound rule under **Web UI→Extension/Trunk→Outbound Routes**, the following controls are available:

- **Privilege Level:** defines the minimum privilege required to use the route
- **Password/PIN Groups:** require authentication before dialing
- **Source Caller ID Allowlist:** restricts the route to specific extensions or caller ID patterns

**Note:**

When Source Caller ID Allowlist is enabled, Privilege Level becomes inactive. Only callers that match the allowlist can use the route.

Outbound Routes > Edit Outbound Rule: Rule\_2

Don't Call Me Blocklist ⓘ
☐

 Don't Call Me Blocklist Integration must be enabled first. [Click here](#) to jump to the settings page.

Disable This Route ⓘ
☐

**Outbound Permission**

Password Settings ⓘ

☒ Password
☐ PIN Groups

Password ⓘ
4 - 10 characters, digital supported

Privilege Level ⓘ

Internal

 Warning: Setting privilege level at "Internal" has potential security risks.

Enable Source Caller ID Allowlist ⓘ
☐

*Outbound Permission Configuration*

## Using Source Caller ID Allowlist

When creating/editing an outbound rule under **Web UI→Extension/Trunk→Outbound Routes**, enable Source Caller ID Allowlist to restrict the route so that only specific callers may use it.

Once this option is enabled, the **Privilege Level** field becomes inactive. Route access is controlled exclusively by the allowlist rules.

Outbound Routes > Edit Outbound Rule: Rule\_2

Outbound Permission

Password Settings ⓘ

☒ Password
☐ PIN Groups

Password ⓘ

4 - 10 characters, digital supported

Privilege Level ⓘ

Internal

Enable Source Caller ID Allowlist ⓘ
☒

Source Caller ID Pattern ⓘ

Separate each entry with commas.

Allowlisted Extensions/Extension Groups ⓘ

Call Duration Limit

Per-Call Duration Limit ⓘ
☐

Total Call Duration Limit ⓘ
☐

Source Caller ID Allowlist Settings

The Source Caller ID allowlist can be configured in two ways:

1. **Source Caller ID Pattern:** authorize callers by matching caller ID patterns.
2. **Allowlisted Extensions/Extension Groups:** authorize specific extensions or extension groups.

A caller is allowed to use the outbound route if it matches **any** configured pattern or belongs to any selected extension/group.

## Source Caller ID Pattern

Use this field when you want to authorize callers based on caller ID ranges rather than individual extensions. All patterns must begin with an underscore (`_`), and multiple entries are separated by commas.

The supported pattern characters are described in the following table:

| Symbol    | Meaning                                                                                      |
|-----------|----------------------------------------------------------------------------------------------|
| [12345-9] | Matches any digit listed inside the brackets. In this example 1,2,3,4,5,6,7,8,9 are allowed. |
| N         | Any digit from 2 to 9.                                                                       |
| X         | Any digit from 0 to 9.                                                                       |
| Z         | Any digit from 1 to 9.                                                                       |
| .         | Wildcard that matches one or more characters.                                                |
| !         | Wildcard that matches zero or more characters immediately.                                   |

|     |                                                                                                                           |
|-----|---------------------------------------------------------------------------------------------------------------------------|
| –   | Used only to indicate ranges inside brackets. It does not affect matching.                                                |
| [ ] | Used to group specific character choices. For example, [x], [n], and [z] simply match the literal characters x, n, and z. |

## Allowlisted Extensions/Extension Groups

This option allows the administrator to explicitly authorize specific extensions or extension groups.

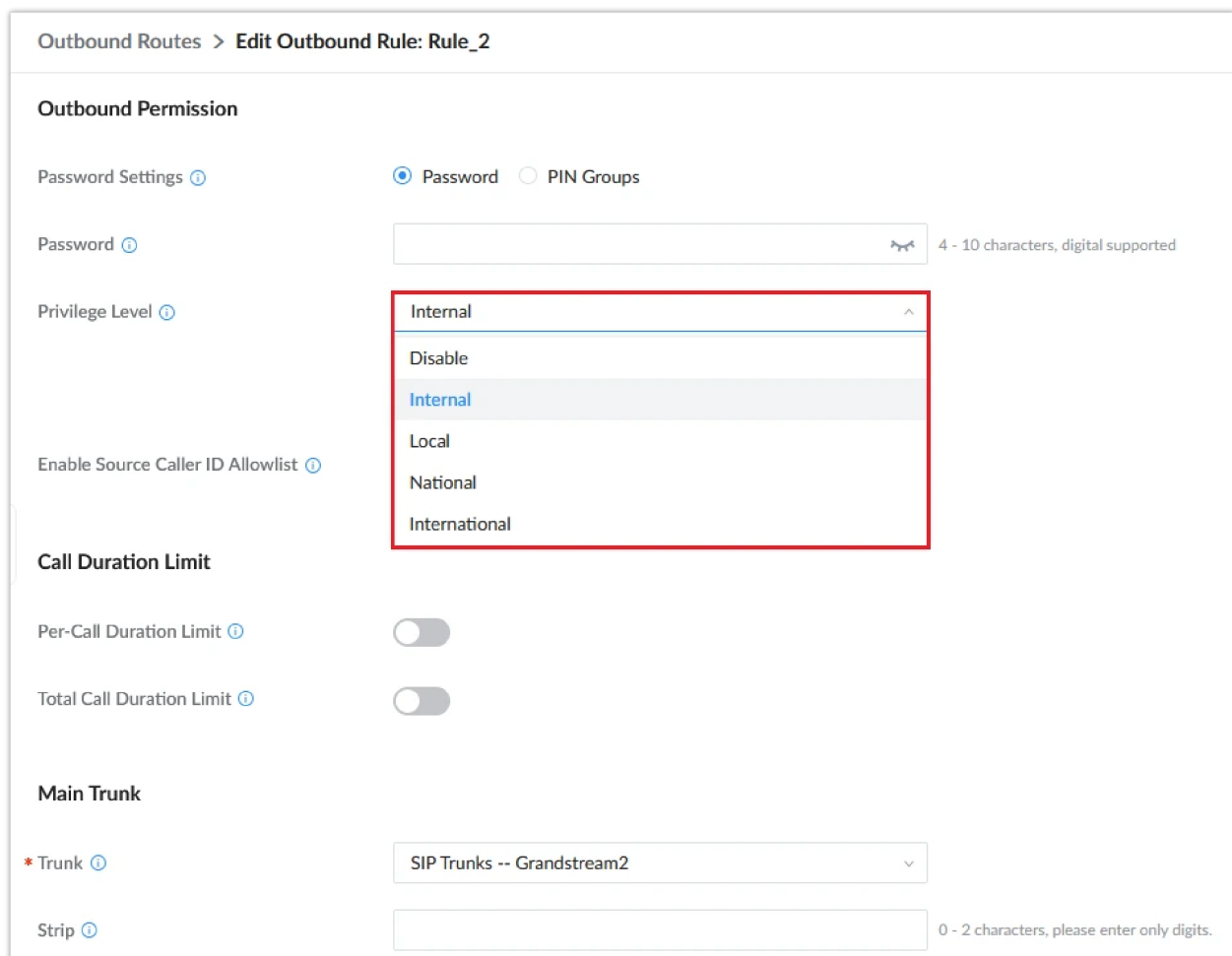
Users can select one or more entries. Only those extensions (or group members) are allowed to dial out using the route.

If Group1 contains extensions **1002** and **1003**, and the Source Caller ID Pattern is: \_NXXX

Then extensions **1001, 1002, 1003**, and any other four-digit extension beginning with 2–9 will be allowed to use this outbound rule.

## Using Privilege Level

When creating or editing an outbound route under **Web UI → Extension/Trunk → Outbound Routes**, the *Privilege Level* setting defines which callers are allowed to use the route.



Outbound Routes > Edit Outbound Rule: Rule\_2

**Outbound Permission**

Password Settings ⓘ ☒ Password ☐ PIN Groups

Password ⓘ  4 - 10 characters, digital supported

Privilege Level ⓘ

- Internal
- Disable
- Internal**
- Local
- National
- International

Enable Source Caller ID Allowlist ⓘ

**Call Duration Limit**

Per-Call Duration Limit ⓘ ☐

Total Call Duration Limit ⓘ ☐

**Main Trunk**

\* Trunk ⓘ

Strip ⓘ  0 - 2 characters, please enter only digits.

*Outbound Route Call Privilege Level*

Privilege levels are hierarchical from lowest to highest:

**Internal → Local → National → International**

A call is allowed only when the caller's privilege level is greater than or equal to the outbound route privilege.

### Notes:

- Setting "Privilege Level" to "Disable" will lead to the outbound route unavailable unless "Enable Source Caller ID Whitelist" option is enabled to control outbound privilege.
- The privilege levels in an outbound route **Internal**, **Local**, **National**, and **International** do not mean the destination of the call. i.e., International does not mean that the outbound will allow international calls to be made, or, National does not mean that international calls cannot be made.

On the IPPBX, an outbound call can be initiated by the following sources:

- local extensions
- IVR menus
- DISA
- Or an inbound route through which an external number is calling in.

In the following sections, we will introduce how to configure the privilege levels for each of them.

## Local Extension Privilege

Once the outbound route is created with a proper privilege level, the administrator could decide which extensions could use this outbound rule to dial external numbers by configuring "Privilege" for each extension.

On the IPPBX web GUI, create/edit an extension under **Web UI→Extension/Trunk→Extension→Basic settings**. Users shall see the "Privilege" option with four levels in the drop-down list.

The screenshot shows the 'Edit Extension: 1000' page in the IPPBX web GUI. The 'Basic Settings' tab is selected. Under the 'General' section, the 'Call Privileges' dropdown menu is open, displaying four options: Internal, Local (which is highlighted in blue), National, and International. Other visible fields include 'Extension' set to 1000, 'CallerID Number' set to 1000, 'SIP/IAX Password' (masked with dots), 'Concurrent Registrations' set to 1, and a 'Disable This Extension' checkbox.

*Extension Call Privileges*

The extension needs to be assigned with higher or equal level privilege compared to the outbound route's privilege level in order to make outbound calls using that route.

When making an outbound call via a route from a IPPBX extension, the IPPBX will compare the extension's privilege level with the outbound route's privilege level. If the extension's privilege level is higher than or equal to the outbound route's privilege level, the call will be allowed to go through.

Please see more descriptions for each privilege level below:

- If an outbound rule is set to "**Internal**": All extensions can use this rule.
- If an outbound rule is set to "**Local**": Extensions with Local, National, or International level are allowed to use this rule.
- If an outbound rule is set to "**National**": Extensions with National or International level are allowed to use this rule.
- If an outbound rule is set to "**International**": Only extensions with International level can use this rule.

## IVR Privilege

When creating/editing an IVR under **Web UI→Basic Call Features→IVR**, users shall see "Privilege" option when "External Number" is chosen for the IVR.

**Dialed Number**

Dial Other Extensions ⓘ

☐ All
 ☐ Extension
 ☒ External Number

☐ Multimedia Meeting
 ☐ Call Queue
 ☐ Ring Group

☐ Paging/Intercom Groups
 ☐ Voicemail Groups

☐ Fax Extension
 ☐ Dial By Name

\* Privilege ⓘ Internal

Dial Block/Allowlist ⓘ Disable

IVR Privilege Level Default Settings

By default, the **“External Number”** option is disabled. To allow users calling into this IVR to use the trunk to dial external numbers, the administrator should first enable the **“External Number”** option and select a proper level for the **“Privilege”** option.

The IPPBX will then compare the IVR’s privilege level with the outbound route’s privilege level. Only if the IVR’s privilege level is higher than or equal to the outbound route’s privilege level, the call will be allowed to go through.

## DISA Privilege

When creating/editing a DISA under **Web UI→Advanced Call Features→DISA**, users shall see **“Privilege”** options with 4 levels in the drop-down list.

**DISA > Create New DISA**

\* Name ⓘ Name

\* Password ⓘ

Privilege ⓘ Internal

\* Response Timeout (s) ⓘ 10

\* Digit Timeout (s) ⓘ 5

Allow Hang-up ⓘ ☐

Replace Display Name ⓘ ☐

DISA Privilege

To allow callers routed to a DISA to dial external numbers, assign an appropriate value to the **Privilege** option when configuring the DISA. After the DISA is created, it can be used as a destination for an inbound route or an IVR key event. When a call reaches DISA, the caller is first prompted for the DISA password. After successful authentication, a second dial tone is played and the caller can dial the external number.

At this point, the IPPBX compares the DISA privilege level and the outbound route privilege level. The call is allowed only when the DISA privilege is greater than or equal to the privilege level required by the outbound route.

## Inbound Route Privilege

When an external number calls into IPPBX through an inbound route, it will be directed to the default destination configured for that inbound route. If **“Default Destination”** of that inbound route is selected as **“By DID”** or **“External Number”**, the call could be routed out to another external number through an outbound route on the IPPBX. In this case, the administrator needs to configure the **“Privilege Level”** of that inbound route to control whether it is allowed to direct calls out to external numbers.

When creating/editing an inbound rule under **Web UI→Extension/Trunk→Inbound Routes**, users shall see “Privilege Level” option.

Pattern

\* Pattern

CallerID Pattern

CID Source

None

Seamless Transfer Whitelist

Dial Trunk

☒

Privilege Level

Internal

Inbound Route Privilege

This “**Privilege Level**” option applies to the inbound rule only when “Default Destination” is set to “by DID”. (IVR is handled in a different way; the other options in the “Default Destination” can be considered as internal extensions on the IPPBX).

When there is an incoming call from the trunk to the IPPBX via this inbound route, if DID pattern in this inbound route matches one of the outbound route on the IPPBX, the IPPBX will compare the inbound route’s privilege level with the matching outbound route’s privilege level. If the inbound route’s privilege level is higher than or equal to the matching outbound route’s privilege level, the call will be allowed to go through.

Outbound Route Selection

When a user dials an external number, the IPPBX evaluates all outbound routes whose dial patterns match the dialed number. If more than one outbound route matches, the system determines which route to use based on the *Outgoing Routing Priority Policy* configured on the Outbound Routes page.

The configured policy determines final route selection when multiple patterns match:

- 1. **List Sorting Priority:** The first matching outbound route in the list is used.
- 2. **Accuracy First:** The outbound route with the most specific dial pattern is used. List position is only relevant when two patterns are equally specific.

Outgoing routing priority policy

Priority Strategy

List Sorting Priority

List Sorting Priority

Matches outgoing routes from top to bottom by list priority. For example: For calls that start with 137, because the priority of **\_1** is above **\_137**, the outgoing call would be routed through the route **\_1**.

| Priority | Name | Outbound Number Matching Pattern | Privilege Level |
|----------|------|----------------------------------|-----------------|
| 1        | ...  | <b>_1</b>                        | ...             |
| 2        | ...  | <b>_137</b>                      | ...             |

Accuracy First

The outgoing route with more specific number matching will be prioritized. For example: For calls starting with 137, **\_137** is preferred because it is more specific than **\_1**.

| ID | Name | Outbound Number Matching Pattern | Privilege Level |
|----|------|----------------------------------|-----------------|
| 1  | ...  | <b>_1</b>                        | ...             |
| 2  | ...  | <b>_137</b>                      | ...             |

Cancel

OK

Outgoing Routing Priority Policy

The following examples illustrate how pattern matching works; the final route chosen depends on the active priority policy.

◦ **Example 1: Different starting digits**

Outbound Route 1: **\_1X**.

Outbound Route 2: **\_2X**.

Numbers beginning with **1** match Outbound Route 1 and numbers beginning with **2** match Outbound Route 2. Because the patterns do not overlap, the priority policy does not affect selection.

◦ **Example 2: Exact match vs. wildcard match**

Outbound Route 1: **\_XXXX**

Outbound Route 2: **\_1234**

Both routes match when **1234** is dialed. Under **Accuracy First**, Route 2 is chosen (more specific match). Under **List Sorting Priority**, whichever route appears first in the list is used.

◦ **Example 3: Specific prefix**

Outbound Route 1: **\_X**.

Outbound Route 2: **\_0X**.

A number starting with **0** matches both routes. **Accuracy First** selects Route 2 because **\_0X** is more precise. **List Sorting Priority** selects whichever route appears first.

◦ **Example 4: Length-based overlap**

Outbound Route 1: **\_123XXX**

Outbound Route 2: \_123XXX.

Numbers beginning with **123** match both patterns. Calls with exactly six digits beginning **123** match Route 1. Calls with more than six digits beginning **123** match Route 2. If both patterns match a number, the active priority policy decides which is used.

## Outbound Caller ID/DOD Configuration

On IPPBX web GUI, there are many options that allow users to configure the Caller ID to be displayed on the callee's LCD. These options are:

- **Trunk Caller ID**
- **Trunk DOD**
- **Caller ID Manipulation**
- **Outbound route CID**
- **Extension Caller ID**
- **Global Outbound Caller ID**

In this section, we will introduce the configuration of each of them and their priority.

### Trunk Caller ID

When editing a SIP peer trunk, users shall see "**Keep Trunk CID**", "**Caller ID**" and "**CallerID Name**" options.

The screenshot shows the 'Edit SIP Trunk: Grandstream' configuration page. The 'Basic Settings' tab is selected. The 'Keep Trunk CID' option is checked and highlighted with a red box. Other options include 'Disable This Trunk', 'Type' (Peer SIP Trunk), 'Provider Name' (Grandstream), 'Host Name' (192.168.6.20), 'Transport' (UDP), 'Auto Record', 'Keep Original CID', 'NAT', and 'TEL URI' (Disabled). A warning message is displayed: 'If TCP or TLS is selected, please enable the corresponding settings in PBX Settings -> SIP Settings -> TCP/TLS.'

Trunk Caller ID

To have "**Caller ID**" and "**CallerID Name**" to take effect, users must enable "**Keep Trunk CID**" option. Only if "Keep Trunk CID" is enabled, all outbound calls going through this trunk will use the "Caller ID" and "CallerID Name" configured for this trunk and have them displayed on the callee's LCD.

If **"Keep Trunk CID"** is disabled, even if "Caller ID" and "CallerID Name" are configured with values, they will not be used as the caller ID of the outbound call.

## Trunk DOD

The IPPBX provides Direct Outward Dialing (DOD) which is a service of a local phone company (or local exchange carrier) that allows subscribers within a company's PBX system to connect to outside lines directly.

### Example of how DOD is used:

Company ABC has a SIP trunk. This SIP trunk has 4 DIDs associated to it. The main number of the office is routed to an auto attendant. The other three numbers are direct lines to specific users of the company.

At the moment when a user makes an outbound call their caller ID shows up as the main office number.

This poses a problem as the CEO would like their calls to come from their direct line. This can be accomplished by configuring DOD for the CEO's extension.

### Steps to configure DOD on the UCM630x/A:

1. To setup DOD go to UCM630X Web GUI→**Extension/Trunk**→**VoIP Trunks** page.
2. Click on the **"DOD"** icon to access the DOD options for the selected SIP Trunk.
3. Click **"Add DOD"** to begin your DOD setup
4. Enter a SIP trunk DID number in the **"DOD number"** field. In this example, ABC company has a total of 4 DID numbers. Enter the phone number used by the CEO here.
5. When adding extensions, you can choose whether to **"Enable Strip"** according to your needs. If it is enabled, you can configure the number (0-64) that will be stripped from the extension number before being added to the DOD number. For example, if the entered digit is 2, and the DOD number for extension 4002 is 1122, then dialing out from 4002, 112202 will be used as the caller ID (DOD).
6. Select an extension from the **"Available Extensions"** list. Users have the option of selecting more than one extension. In this case, Company ABC would select the CEO's extension. After making the selection, click on the button to move the extension(s) to the **"Selected Extensions"** list.

**Create DOD**

\* DOD Number

DOD Name

Add Extension ☒

Strip Extension ☐

\* Strip

| Available                                         | Selected                   |
|---------------------------------------------------|----------------------------|
| <input type="checkbox"/> 126                      | <input type="checkbox"/> 0 |
| <input type="checkbox"/> 1111                     |                            |
| <input type="checkbox"/> 1200                     |                            |
| <input type="checkbox"/> 1300                     |                            |
| <input type="checkbox"/> 2222 "SDA 2222 SDA 2222" |                            |
| <input type="checkbox"/> 3333 "SDA 3333 SDA 3333" |                            |
| <input type="checkbox"/> 4001                     |                            |

*DOD Extension Selection*

7. Click **"Save"** at the bottom.

Once completed, the user will return to the **EDIT DOD** page that shows all the extensions that are associated with a particular DOD.

| DOD                      | DOD Name | Extensions     | Options |
|--------------------------|----------|----------------|---------|
| <input type="checkbox"/> | 0612345  | 1200 1300      |         |
| <input type="checkbox"/> | 0654321  | 4001 4444 5000 |         |

*Edit DOD*

From this page users can:

- Add Direct Outward Dialing (DOD) entries manually.
- Import DOD entries from CSV or XLSX files.
- Export DOD entries to CSV or XLSX files.
- Filter DOD entries by number or name.
- Select multiple DOD entries for bulk operations.
- Delete one or multiple selected DOD entries in batch.

## Outbound Route CID

Users can set up CID per Outbound. If no DOD or higher priority CID is configured the IPPBX uses the CID number and CID name configured on the outbound route to form the From header in the outgoing Invite.

**General**

\* Outbound Rule Name Rule\_1 2 - 64 characters, alphanumeric characters, chinese characters, and special characters \_ - are supported

\* Outbound Number Matching Pattern \_x. Enter additional entries on new lines.

Auto Record ☐

Local Country Code  0 - 8 characters, please enter only digits.

Outbound Route CID  0 - 32 characters, please use numbers, letters, spaces and special characters +<>\*-\_. only

Caller ID Manipulation ☐

Don't Call Me Blocklist ☐

Don't Call Me Blocklist Integration must be enabled first. [Click here](#) to jump to the settings page.

Disable This Route ☐

*Outbound Route CID*

## Caller ID Manipulation

Caller ID Manipulation allows the UCM630x/A to modify the outbound caller identity before the call is sent to the trunk. When this option is enabled, the system applies the configured *Strip* and *Prepend* values to the Caller ID. The updated Caller ID is written to both:

- The SIP **From** header
- The **Remote-Party-ID (RPID)** header

This ensures compatibility with ITSPs that rely on either header to process Caller ID.

**Example:**

- **Original Caller ID:** 0123456789
  - **Strip** = 1
  - **Prepend** = +333
- **Resulting Caller ID:** +333123456789 *(applied to From and RPID)*

The table below describes the configuration fields for the Outbound Route Caller ID Manipulation feature.

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Caller ID Manipulation | <p>Caller ID Manipulation supports two modes:</p> <ul style="list-style-type: none"><li>● <b>Original CID:</b> Transforms only the original incoming caller ID when the call is forwarded to an external number. This mode requires “Keep Original CID” to be enabled on the outbound trunk.</li><li>● <b>All:</b> Applies transformation to all outbound caller IDs that pass through this route, including internal extensions.</li></ul> <p>The default setting is “<i>Original CID</i>”.</p> |
| Strip                  | <p>Specifies how many leading digits are removed from the Caller ID before sending the call. Users can enter up to 2 digits and a value less than or equal to 32.</p>                                                                                                                                                                                                                                                                                                                            |
| Prepend                | <p>Specifies characters added in front of the Caller ID after stripping. Commonly used to add country codes or prefixes required by the ITSP. This field supports 0 to 20 characters and allows digits, letters and +-*# only.</p>                                                                                                                                                                                                                                                               |

**Extension Caller ID**

When creating/editing an extension, users shall see options “CallerID Number”, “First Name” and “Last Name”.

Extensions > Edit Extension: 2000

Basic Settings
Media
Features
Voicemail
Custom Time
Wave Client
Follow Me
Advanced Settings

### General

\* Extension
2000

CallerID Number

\* Call Privileges
Internal

\* SIP/IAX Password
.....

AuthID

\* Concurrent Registrations
3

Disable This Extension
☐

### User Settings

First Name
John

Last Name
Doe

Email Address

\* User/Wave Password
\*\*\*\*\*

\* User Portal/Wave Privileges
Wave Administrator

Mobile Number
+1

Add / Edit Privileges

Department
Casablanca

Job Title

### Contact Privileges

Cancel

Save

#### Extension Caller ID

“**First Name**” and “**Last Name**” together define caller ID name. When the extension makes an outbound call, its “CallerID Number”, “First Name” and “Last Name” will be used as the caller ID and caller ID name of the outbound call if the following conditions are satisfied:

- “Keep Trunk CID” of the trunk is disabled
- DOD of the trunk not configured

### Global Outbound Caller ID

On IPPBX, **PBX Settings**→**General Settings** page, users shall see “Global Outbound CID” and “Global Outbound CID Name” options:

General Settings

General Preference

Global Outbound CID Number ⓘ

Global Outbound CID Name ⓘ

\* Ring Timeout (s) ⓘ

60

Call Duration Limit ⓘ

☐

International Call Prefix ⓘ

00

Domestic Long Distance Call Prefix ⓘ

Local Area Code ⓘ

Recording Settings

Record Prompt ⓘ

☐

Allow External Numbers to Cancel Recording ⓘ

☐

Merge Same Call Recordings ⓘ

☒

Global Outbound CID Configuration

“**Global Outbound CID Number**” and “**Global Outbound CID Name**” will be used as call ID and call ID name of an outbound call if following conditions are satisfied:

- “Keep Trunk CID” of the trunk is disabled.
- DOD of the trunk is not configured.
- The Outbound Route CID is not configured.
- The extension initiating the outbound call doesn’t have caller ID number and caller ID Name configured.

## Outbound Caller ID Priority

- If trunk caller ID is configured and “Keep Trunk CID” is enabled, then trunk CID is of the highest priority. “Caller ID” and “CallerID Name” of the trunk will override caller ID configured in DOD, Outbound route CID, extension and global settings.
- If “Keep Trunk CID” is disabled, the priority of the other four caller id configuration is as following:
  1. DOD has the highest priority
  2. Outbound Route CID has the second priority
  3. Extension CID has third priority
  4. Global outbound caller ID has the lowest priority

## Outbound Blocklist

The IPPBX provides centralized outbound blocking to prevent specific destinations from being dialed. These controls are evaluated before outbound route selection. If a call matches a blocklist rule, it is rejected immediately and never reaches a trunk.

Outbound blocking is typically used to prevent dialing to fraudulent or high-cost destinations, enforce organizational dialing restrictions, as well as comply with regulatory “do-not-call” requirements.

**Note:**

The blocklist rules operate globally and apply to all outbound routes.

**Blocklist Manage**

Outbound blocking can be applied at a country or prefix level. Administrators can block:

- Entire geographic regions
- Specific countries or national prefixes
- Individual numbers or dial-plan style patterns

This allows flexible policies such as blocking international destinations while still allowing selected regions, or blocking premium-rate prefixes while allowing normal calls. If a dialed number matches a blocklist entry, the call is denied regardless of any permission configurations.

Blocklist Manage Configuration Page

**Don't Call Me Blocklist Integration**

In addition to blocklist rules, the IPPBX can optionally query an external “Don't Call Me” database at call time. When enabled:

1. The UCM sends the dialed number to the database API.
2. If the number is registered as non-contactable, the call is rejected.
3. If the lookup times out, behavior follows the configured timeout policy (allow or block).

## Call Duration Limit

Outbound routes support multiple timers to control outbound call usage. These limits operate at the route level and apply to all calls that pass through the route.

Administrators can configure these limits under the **Web UI→Extension/Trunk→Outbound Routes→Call Duration Limit**.

Outbound Routes > Edit Outbound Rule: Rule\_2

**Call Duration Limit**

Per-Call Duration Limit [?](#) ☐

Total Call Duration Limit [?](#) ☐

**Main Trunk**

\* Trunk [?](#)

Strip [?](#)  0 - 2 characters, please enter only digits.

Prepend [?](#)  0 - 20 characters, allow digits, letters and +-\*# only.

Call Duration Configuration

The following sections describe the options available for this feature.

### Per-Call Duration Limit

The Per-Call Duration Limit controls the maximum length of a single outbound call placed through this route. When the configured limit is reached, the PBX plays a warning tone and then terminates the call.

The following configuration parameters are available:

- **Maximum Call Duration (s):** Specifies the maximum allowed call length, in seconds.
- **Warning Time (s):** Defines when the first warning tone is played before the call is disconnected.
- **Warning Repeat Interval (s):** Specifies the interval between repeated warning tones (in seconds) after the first warning tone has been played.

**Call Duration Limit**

Per-Call Duration Limit [?](#) ☒

\* Maximum Call Duration (s) [?](#)  Valid Range: 0-86400, where 0 indicates no limit

Warning Time (s) [?](#)  Range 1 - 86399

Warning Repeat Interval (s) [?](#)  Range 1 - 86399

Total Call Duration Limit [?](#) ☐

Per Call Duration Limit Settings

### Total Call Duration Limit

In some deployments, it is necessary to prevent excessive outbound usage on a route, for example, when a trunk has cost limits or when administrators want to control abuse or unexpected peaks. The Total Call Duration Limit feature allows the PBX to track the total talk time for all calls placed through a route and automatically stop additional calls once a threshold is reached.

**Call Duration Limit**

Per-Call Duration Limit ⓘ ☐

Total Call Duration Limit ⓘ ☒

Period ⓘ ☒ Monthly ☐ Quarterly

\* Total Time (m) ⓘ

*Total Call Duration Limit Settings*

To configure it, create/edit the outbound route and set:

- **Total Call Duration Limit:** When enabled, the PBX starts accumulating the duration of every outbound call that uses this route.
- **Period:** Choose how often the counter resets:
  - **Monthly:** the counter resets at the beginning of each calendar month.
  - **Quarterly:** the counter resets every three months, starting from the current month.
- **Total Time (m):** Enter the maximum total call time (in minutes) allowed during the selected period. Once the total outbound talk time reaches this value, the PBX will block new calls on this route until the next cycle begins.

**Notes:**

- When the total call duration limit period resets, the accumulated timer returns to 0, and calls can again be placed through the route.
- The total limit applies to all extensions using the route, regardless of privilege level or PIN authentication.

## MANAGING INBOUND ROUTE

### DID Pattern Configuration

When creating/editing an inbound rule under **Web UI→Extension/Trunk→Inbound Routes**, users shall see the “Pattern” option. The user could use the following characters to define the DID pattern:

- **X:** Any Digit from 0-9.
- **Z:** Any Digit from 1-9.
- **N:** Any Digit from 2-9.
- **“.”:** Wildcard. Match one or more characters.
- **“!”:** Wildcard. Match zero or more characters immediately.

All patterns will be prefixed with “\_”.

- The pattern can be composed of two parts, Pattern and CallerID Pattern. The first part is used to specify the dialed number while the second part is used to specify the caller ID and it is optional, if set it means only the extension with the specific caller ID can call in or call out. For example, pattern ‘\_2XXX/1234’ means the only extension with the caller ID ‘1234’ can use this rule.
- Multiple patterns can be used. Each pattern should be entered in new line.
- Users can add comments to a dial plan by typing “/\*” and “\*/” before and after each comment respectively.

### Examples:

| Pattern                                  | CallerID Pattern |
|------------------------------------------|------------------|
| _X.                                      |                  |
| _NXXNXXXXXX /* 10-digit long distance */ | 1000             |
| _818X. /* Any number with leading 818 */ | 1001             |

**Inbound Routes > Create New Inbound Rule**

**General**

Trunks

SIP Trunks -- Grandstream

Inbound Route Name

Rule\_2

Disable This Route☐

**Pattern**

Pattern

\_XXXX

CallerID Pattern

\_XXXX

CID Source

None

Seamless Transfer Whitelist

**Call Setting**

Ringback Tone

None

Alert-info

None

Auto Record

☐

Fax Detection

☐

Block Collect Calls

☐

**CallerID Setting**

Prepend Trunk Name

☐

Set CallerID Info

☐

Cancel

Save

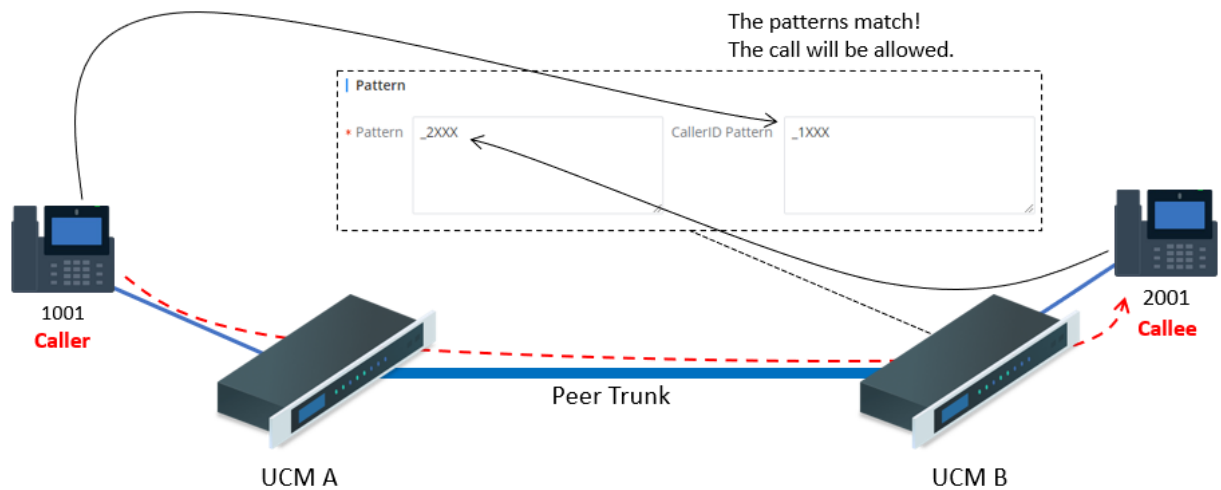
#### Edit Inbound Rule DID Pattern

1. The field **Pattern** defines the allowed pattern of the dialed number
2. The field **CallerID Pattern** defines the allowed pattern of the caller number

Only if both patterns are matched, the inbound call can successfully go through.

To illustrate it more clearly, here is an example. Assuming a peer trunk is configured between two IPPBX.

1. An extension 10000 on IPPBX-A wants to call an extension 5000 on IPPBX-B.
2. This call must go through an inbound route configured on IPPBX-B to reach extension 5000. IPPBX-B will examine if the caller number and the dialed number match the DID pattern of the inbound rule.



*Edit Inbound Rule DID Pattern*

In this case, 10000 is the caller number and it will be restricted by the pattern defined in the second field and 5000 is the dialed number and it will be restricted by the pattern defined in the first field.

3. If the caller number and the destination number match the DID pattern, the call will successfully go through. In this example, assuming the inbound rule is configured with DID pattern shown in the figure [\[Edit Inbound Rule – DID Pattern\]](#), the call is allowed to go through.

## DID Mode

When editing the SIP peer trunk, users shall see the “**DID Mode**” option. This option is for user to configure how to obtain the destination ID of an incoming SIP call.

There are two modes available for users to select: **To-header** and **Request-line**.

Select “To-header” to use To header in SIP message as the destination ID; select “Request-line” to use Request-line header in SIP message as the destination ID.

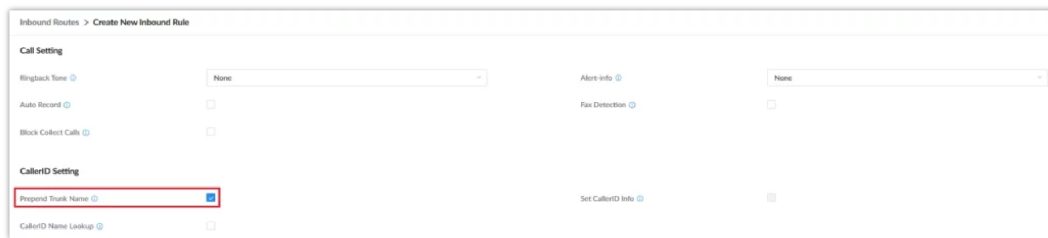
*DID Mode Trunk Configuration*

## Prepend Trunk Name to Caller ID for Inbound Call

When creating/editing an inbound rule, user shall see “**Prepend Trunk Name**” option. If this option is enabled, IPPBX will prepend the trunk name to the caller ID name for all incoming calls through this inbound rule. Therefore, the caller ID name displayed on the called extension will be the trunk name plus the caller ID. Thus, users would be able to tell from extension’s LCD which trunk the inbound call goes through.

### Important Note

If "Prepend Trunk Name" is enabled, "Prepend User Defined Name" will be deactivated.

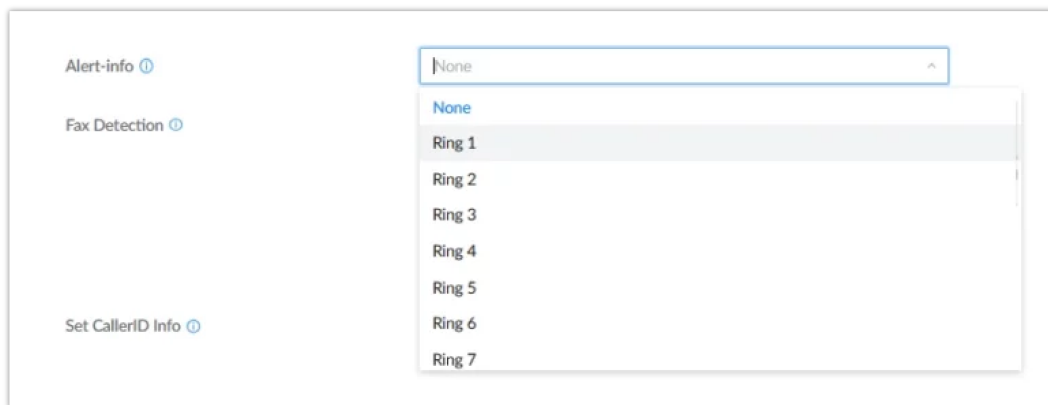


The screenshot shows the 'Inbound Routes > Create New Inbound Rule' configuration page. Under the 'Call Setting' section, the 'Prepend Trunk Name' checkbox is checked and highlighted with a red box. Other options like 'Ringback Tone', 'Alert-info', 'Auto Record', 'Fax Detection', 'Block Collect Calls', and 'CallerID Name Lookup' are visible but not highlighted.

*Prepend Trunk Name Configuration Option*

## Alert-Info

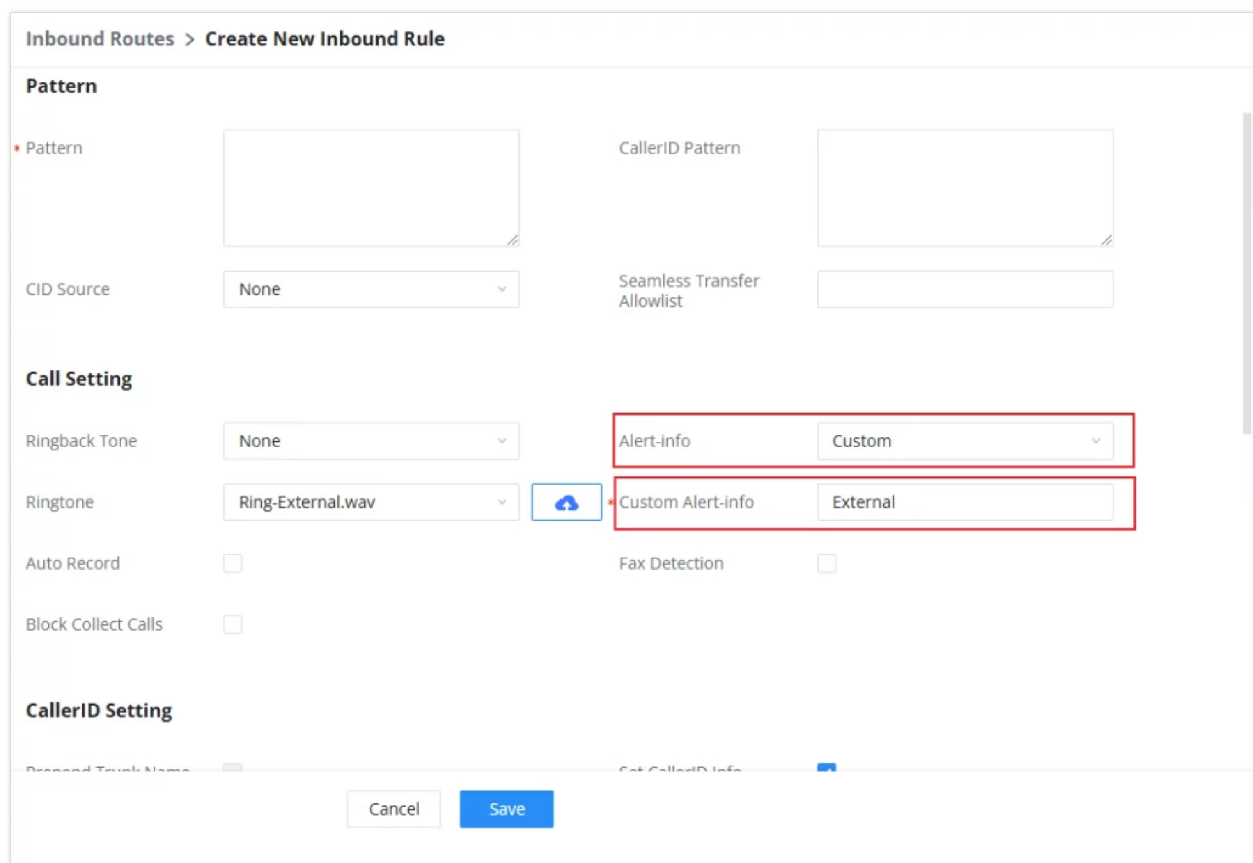
When creating/editing an inbound rule, user shall see "**Alert-Info**" option. If this option is enabled, the PBX will include Alert-info header with selected/defined value in INVITE to destination. Therefore, destination device will use as an alternative ringtone. Thus, users would be able to tell from extension's phone ringtone which trunk the inbound call goes through.



The screenshot shows the 'Alert-info' dropdown menu open, displaying a list of ringtone options: 'None', 'Ring 1', 'Ring 2', 'Ring 3', 'Ring 4', 'Ring 5', 'Ring 6', and 'Ring 7'. The 'Alert-info' label is visible to the left of the dropdown.

*Inbound Route Alert Info Configuration*

Users can set "Alert-info" option in Inbound Route to "Custom" and specify "Custom Alert-Info" as "External" for instance, and the phones can be configured to use a specific ringtone if matching rule is set to "External". If the call is coming through the trunk, the phone will ring using specified ringtone and user will know the call is external, otherwise, the phone will ring using default ringtone letting the user know that the call is Internal.



The screenshot shows the 'Inbound Routes > Create New Inbound Rule' configuration page. Under the 'Call Setting' section, the 'Alert-info' dropdown is set to 'Custom' and the 'Custom Alert-info' dropdown is set to 'External'. Both dropdowns are highlighted with red boxes. The 'Ringtone' dropdown is set to 'Ring-External.wav'. The 'Pattern' section shows 'Pattern' and 'CallerID Pattern' fields. The 'CID Source' is set to 'None' and 'Seamless Transfer Allowlist' is empty. The 'CallerID Setting' section is partially visible at the bottom.

## Manipulating Caller ID for Inbound Calls

Users are now able to manipulate the CallerID number and names for inbound calls using a predefined syntax.

The screenshot shows the 'Inbound Routes > Create New Inbound Rule' configuration page. Under the 'Call Setting' section, 'Ringback Tone' and 'Alert-info' are set to 'None'. 'Auto Record' and 'Fax Detection' are unchecked. 'Block Collect Calls' is also unchecked. Under the 'CallerID Setting' section, 'Prepend Trunk Name' is unchecked. The 'Set CallerID Info' checkbox is checked and highlighted with a red box. Below this, the 'CallerID Name' field contains the syntax `${CALLERID(name)}` and the 'CallerID Number' field contains `${CALLERID(num)}`. These two fields are also highlighted with a red box. The 'CallerID Name Lookup' checkbox is unchecked.

CallerID Manipulation

### CallerID Number Syntax Explanation

- **`${CALLERID(num)}`**: Default value which indicates the number of an incoming caller (CID). The CID will not be modified.
- **`${CALLERID(num):n}`**: Skips the first n characters of a CID number, where n is a number.
- **`${CALLERID(num):-n}`**: Takes the last n characters of a CID number, where n is a number.
- **`${CALLERID(num):s:n}`**: Takes n characters of a CID number starting from s+1, where n is a number and s is a character position (e.g. `${CALLERID(num):2:7}` takes 7 characters after the second character of a CID number).
- **`n${CALLERID(num)}`**: Prepends n to a CID number, where n is a number.

### CallerID Name Syntax Explanation

- **`${CALLERID(name)}`**: Default value. Indicates the name of an incoming caller.
- **`A${CALLERID(name)}B`**: Prepend a character 'A' and append a character 'B' to `${CALLERID(name)}`.

#### Important Note

Entering text without any syntax will set a fixed name for CID Name

## Global Inbound Mode

In the IPPBX, the user can configure multiple modes on one or multiple inbound routes, the user can change the modes of the inbound trunks manually using the corresponding feature. The inbound multiple mode can be enabled under Inbound Route settings. See the figure below.

#### Note

In Global Inbound Mode, dialing the feature code to change to, for example, mode 2, it will change all the created inbound routes modes to mode 2, given that mode 2 is already configured on the inbound routes.

To configure changing the inbound mode for a specific inbound mode, please refer to the section [\[Inbound Modes For Individual Routes\]](#)

| Inbound Routes                                                                                                        |             |                  |              |                           |                |                 |                                                                          |         |
|-----------------------------------------------------------------------------------------------------------------------|-------------|------------------|--------------|---------------------------|----------------|-----------------|--------------------------------------------------------------------------|---------|
| <div> Add Blocklist Set Global Inbound Mode 3rd Party Database Search Import Export Filter SIP Trunks -- UCM_B </div> |             |                  |              |                           |                |                 |                                                                          |         |
| Inbound Route Name                                                                                                    | Pattern     | CallerID Pattern | Inbound Mode | Inbound Mode Feature Code | Time Condition | Time            | Destination                                                              | Options |
| Rule_1                                                                                                                | _*X.<br>_X. | No Limit         | Default Mode |                           | --             | Default Default | Default Mode B<br>y DID -- Strip 0<br>Mode 1 User Ex<br>tensions -- 2020 |         |
| Total: 1 <div> 1 10 / page Goto </div>                                                                                |             |                  |              |                           |                |                 |                                                                          |         |

Inbound Routes Set Global Inbound Mode

Inbound Routes > Set Global Inbound Mode

This feature can be used to change inbound modes either through the web UI or feature codes. To use this feature, please enable "Inbound Multiple Mode" and configure each mode.

Global Inbound Multi-Mode

☒

Global Inbound Mode

Mode 1

BLF Subscription Number

Inbound Mode Toggle Feature Code

Default Mode

\*61

Mode 1

\*62

Mode 2

\*63

Mode 3

\*64

Mode 4

\*69

Mode 5

\*70

Add Mode

Cancel

Save

Global Inbound Mode Configuration

Note

A total of 10 modes can be configured, including the Default Mode.

Edit Inbound Rule Multiple Mode

When Multiple Mode is enabled for the inbound route, the user can configure a “Default Destination” and a “Mode 1” destination for this route. By default, the call coming into this inbound route will be routed to the default destination.

SIP end devices that have registered on the IPPBX can dial feature code **\*62** to switch to inbound route “**Mode 1**” and dial feature code **\*61** to switch back to “Default Destination”. Switching between different modes can be easily done without a web UI login.

For example, the customer service hotline destination has to be set to a different IVR after 7 p.m. The user can dial **\*62** to switch to “**Mode 1**” with that IVR set as the destination before off work.

## Global Inbound Mode BLF Monitoring

The user can use the BLFs on the IP phones to monitor the global mode set for all inbound routes or the modes set for each individual inbound route.

### Settings BLF monitoring for all the inbound routes:

To set BLF monitoring for when switching the inbound mode for all the inbound routes, follow the steps below.

1. Navigate to **Extension Trunk/Inbound Routes**, then click on “Set Global Inbound Mode”, as shown in the figure below.

2. Enter the BLF Subscription Number. The user can choose any number which does not conflict with an existing extension number. This number will be used in the BLF configuration on the IP phone.

**Inbound Routes > Set Global Inbound Mode**

This feature can be used to change inbound modes either through the web UI or feature codes. To use this feature, please enable "Inbound Multiple Mode" and configure each mode.

Global Inbound Multi-Mode ☒

Global Inbound Mode Mode 1

BLF Subscription Number 44445

**Inbound Mode Toggle Feature Code**

\* Default Mode ⓘ \*61

\* Mode 1 ⓘ \*62

[Add Mode](#) +

Cancel Save

*BLF Subscription Number Configuration*

3. On the IP phone (GXP2170 in this case), navigate to **Settings→Programmable Keys→Virtual Multi-purpose Keys**

**Grandstream GXP2170** Admin Logout | Reboot | Provision | Factory Reset English

**GRANDSTREAM** CONNECTING THE WORLD

STATUS ACCOUNTS **SETTINGS** NETWORK MAINTENANCE PHONEBOOK

Version 1.0.11.85

**Status** **Account Status**

Account Status

Network Status

System Info

Programmable Keys ⊕

Status

Extension Boards Status ⊕

Open Source Licenses

| Account   | SIP User ID | SIP Server   |
|-----------|-------------|--------------|
| Account 1 | 2000        | 192.168.6.60 |
| Account 2 |             |              |
| Account 3 |             |              |
| Account 4 |             |              |
| Account 5 |             |              |
| Account 6 |             |              |

**General Settings**

**BroadSoft**

**External Service**

**Call Features**

**Call History**

**Multicast Paging**

**Outbound Notification**

**Preferences**

**Programmable Keys**

**Extension Boards**

**Web Service**

**XML Applications**

**E911 Service**

**Virtual Multi-Purpose Keys Settings**

**Virtual Multi-Purpose Keys**

**Softkeys Settings**

**Idle Screen Softkeys**

**Call Screen Softkeys**

**NO**

**NO**

*GXP IP Phone Web Interface*

4. On the multi-purpose keys list, click "Edit VPK" of the key you wish to set for monitoring.

## Virtual Multi-Purpose Keys

| Order                                                                     | Mode    | Account | Description | Value | Locked                    |
|---------------------------------------------------------------------------|---------|---------|-------------|-------|---------------------------|
| 1                                                                         | Default | 1       |             |       | <button>Edit VPK</button> |
| 2                                                                         | Default | 2       |             |       | <button>Edit VPK</button> |
| 3                                                                         | Default | 3       |             |       | <button>Edit VPK</button> |
| 4                                                                         | Default | 4       |             |       | <button>Edit VPK</button> |
| 5                                                                         | Default | 5       |             |       | <button>Edit VPK</button> |
| 6                                                                         | Default | 6       |             |       | <button>Edit VPK</button> |
| 7                                                                         | None    | 1       |             |       | <button>Edit VPK</button> |
| 8                                                                         | None    | 1       |             |       | <button>Edit VPK</button> |
| 9                                                                         | None    | 1       |             |       | <button>Edit VPK</button> |
| 10                                                                        | None    | 1       |             |       | <button>Edit VPK</button> |
| 11                                                                        | None    | 1       |             |       | <button>Edit VPK</button> |
| 12                                                                        | None    | 1       |             |       | <button>Edit VPK</button> |
| <button>Add VPK</button> <button>Reset</button> <button>Save VPK</button> |         |         |             |       |                           |

*Virtual Multi purpose Keys*

5. In "Mode", select "Busy Lamp Field", and in "Value", enter 44445.

Edit VPK

Mode

Busy Lamp Field (BLF) ▼

Accounts

Account 1 ▼

Description

Value

44445

Locked

☐

Save

Reset

*Edit VPK*

When the global inbound mode is changed using the corresponding feature code, the BLF will indicate the new mode which has been set.

### Inbound Modes for Individual Routes

In addition to the ability to toggle the global inbound mode, the users can monitor and toggle the inbound mode of individual inbound routes. To do that, enable "Custom Inbound Mode", select

**Inbound Mode**

Inbound Multi-Mode ☒

Custom Inbound Mode ☒

Inbound Mode Mode 1

Inbound Mode Feature Code 33

Allowed DID Destination Extension

Default Mode Mode 1

\* Default Destination Extension 2020

**Time Condition**

Add

| Time Condition | Time | Week | Month | Day | Destination | Options |
|----------------|------|------|-------|-----|-------------|---------|
|----------------|------|------|-------|-----|-------------|---------|

Cancel Save

*Inbound Modes for Individual Routes*

The global inbound mode must be enabled before users can configure route-level inbound mode. Additionally, mode 1 must be configured.

Users can change the mode of the inbound route by dialing both the feature code of the intended mode and the Inbound Mode Feature Code to specify the inbound mode, for example, if the user wants to select mode 1 for this route, he/she can dial the feature code of mode 1, which is, by default, \*62, alongside the Inbound Mode Feature Code of the intended Inbound Rule. The code dialed in this case is \*6233.

The user can also cycle through the modes which are configured for this Inbound Rule by dialing the Inbound Mode Feature Code, which is, in this case, 33.

#### Important Notes

- Toggling the global inbound mode will not affect routes that have Route-level Inbound Mode enabled.
- If all routes have the option enabled, toggling the global inbound mode via BLF will trigger a voice prompt indicating that none of the routes will be affected by the global inbound mode change.

## Individual Inbound Route Mode Monitoring

To monitor the inbound mode in a specific Inbound Route, the user can use the Inbound Mode Feature Code to enter the BLF value configuration on the IP phone. The steps are similar to the configuring the Global Inbound Mode, please follow the same steps in [\[Global Inbound Mode BLF Monitoring\]](#). Instead of entering the BLF Subscription Number in the BLF value, enter the Inbound Mode Feature Code.

## 3rd Party Database Search

The 3rd Party Database Search feature allows the IPPBX to perform a real-time lookup in an external SQL database (MySQL or SQL Server) when an inbound call is received. If the inbound caller number matches a record in the database, the PBX retrieves the associated name and uses it as the Caller ID display.

A global SQL connection must be configured under **Integrations→3rd Party Database Integration** before inbound lookup can function. For full configuration details, see the [Third-Party SQL Database Integration Guide](#).

To configure third-party database lookup on inbound routes, please refer to these instructions:

1. Navigate to **Extension/Trunk → Inbound Routes**

## 2. Enable 3rd Party Database Search.



*3rd Party Database Search Feature for Inbound Routes*

## 3. Configure the Query Key fields described below.

| Field              | Description                                                                                                                                                                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Table</b>       | Specifies the name of the database table that contains caller information. This table is queried when an inbound call is received.<br><br><b>Note:</b> The table name must exist in the configured database and be accessible by the database user defined under the Global SQL Integration. |
| <b>Caller Name</b> | Specifies the column in the selected table that stores the caller's display name. When a matching record is found, the value from this column is used as the inbound caller ID name.                                                                                                         |
| <b>Number</b>      | Specifies the column in the selected table that stores the phone number. The UCM compares the inbound caller number against this column to determine whether a matching record exists.                                                                                                       |

Based on the configured query keys, the UCM automatically generates and executes a SQL query in the following format:

```
SELECT <Caller Name Column>
FROM <Table>
WHERE <Number Column> LIKE '%[INBOUND_NUMBER]%' ;
```

The inbound caller number is dynamically substituted at call time.

## Blocklist Configurations

The UCM supports a global inbound blocklist that applies to all inbound routes. Numbers added to the blocklist are rejected before they reach any destination. This feature is useful for blocking spam callers, abusive callers, or known fraudulent numbers.

To manage the inbound blocklist, click *Blocklist* on the Inbound Routes page.

**Inbound Routes > Blocklist**

① This caller ID blocklist is used for all inbound routes.

⚠ Warning: Too many blocklist entries will lower overall system performance.

Enable Blocklist ☒

**Blocklist Manage**

\* Add Blocklist Number

Apply to

**Add**

**Blocklist list**

| <input type="checkbox"/>                                                          | Number | Apply to | Options |
|-----------------------------------------------------------------------------------|--------|----------|---------|
|  |        |          |         |

*blocklist Configuration Parameters*

Once opened, the following actions are available:

- **Enable/Disable blocklist:** Select the checkbox for "Enable Blocklist" to turn on the Blocklist feature for all inbound routes. Blocklist is disabled by default.
- **Add a blocked number:** Enter a number in the "Add Blocklist Number" field and then click "Add" to add to the list. Anonymous can also be added as a Blocklist Number by typing "Anonymous".
- **Remove entries:** Select one or more entries and click Delete, or click Clear to remove all blocklist entries.
- **Export:** Click **Export** to download the current blocklist in CSV or XLSX for backup or review.
- **Import:** To add blocklisted numbers in batch, click on "Import" to upload the blocklist file in CSV or XLSX format.

|                                                                                                              |             |             |             |                |   |
|--------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|----------------|---|
| <div> <div>Paste</div> <div>Format Painter</div> <div>B I U</div> <div></div> <div></div> <div></div> </div> |             |             |             |                |   |
| Clipboard                                                                                                    |             | Font        |             |                |   |
| F8                                                                                                           |             | X           | ✓           | f <sub>x</sub> |   |
|                                                                                                              | A           | B           | C           | D              | E |
| 1                                                                                                            | 13238680006 | 12135958547 | 12136268547 | 6262357999     |   |
| 2                                                                                                            |             |             |             |                |   |
| 3                                                                                                            |             |             |             |                |   |
| 4                                                                                                            |             |             |             |                |   |
| 5                                                                                                            |             |             |             |                |   |

*Blocklist CSV File*

Users could also add a number to the blocklist or remove a number from the Blocklist by dialing the feature code for "Blocklist Add" (default: \*40) and "blocklist Remove" (default: \*41) from an extension. The feature code can be configured under Web GUI **Basic Call Features**→**Feature Codes**.