



Grandstream Networks, Inc.

Configuring Permissions Privilege Level Settings on UCM6XXX



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OVERVIEW

This document introduces the concepts of permission and privilege levels along with related settings on the UCM6XXX series IP PBX. The permission and privilege settings are used to control the calls on extensions, IVRs, inbound and outbound routes so that the UCM6XXX can securely handle the calls as desired.

The following levels are the four levels of permission/privilege settings on the UCM6XXX:

- **Internal:** The lowest level. This is the default level.
- **Local.**
- **National.**
- **International:** The highest level.

Those options apply to extension setting (Permission), IVR setting (Permission), inbound route setting (Privilege Level) and outbound route setting (Privilege Level).

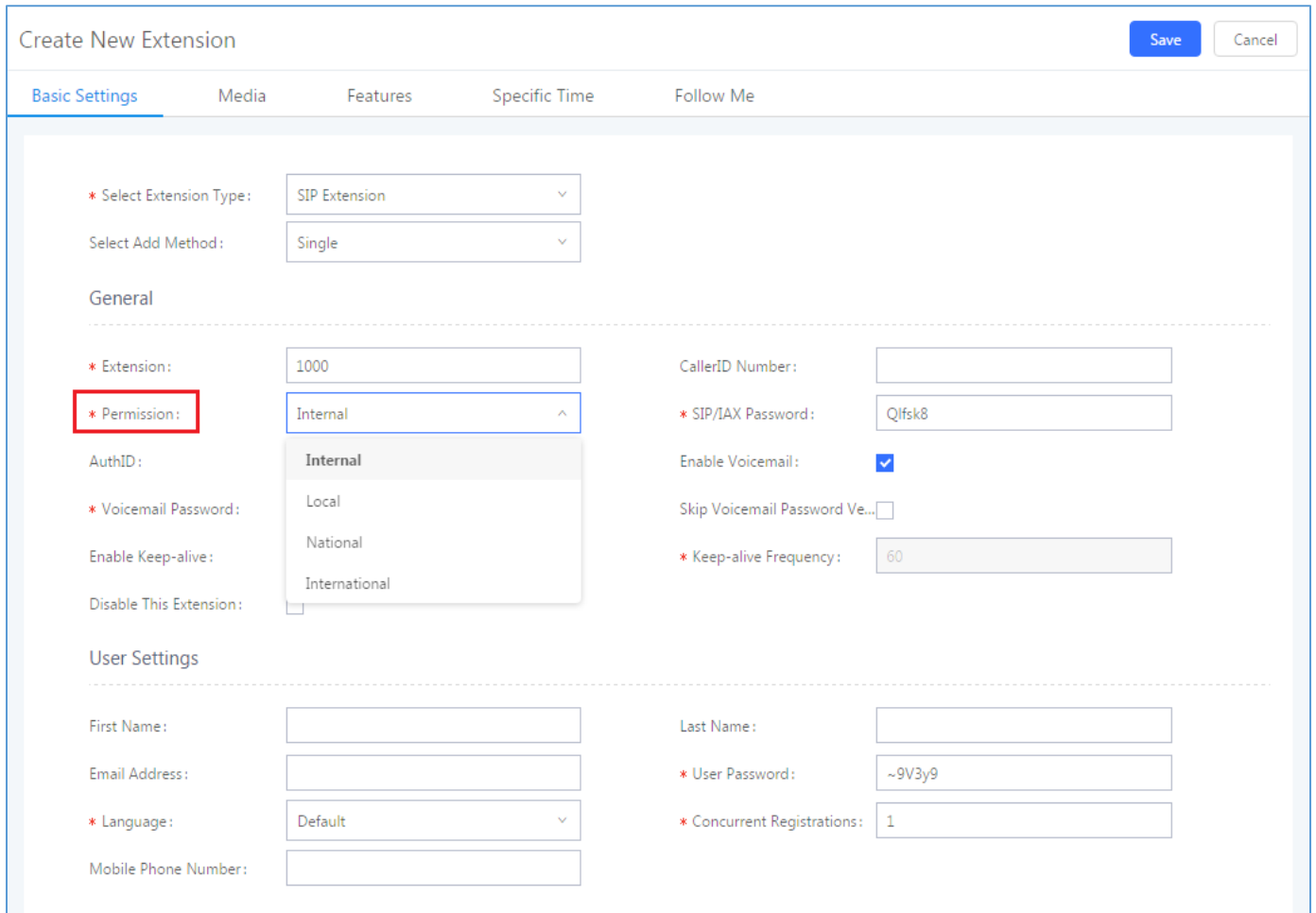
Please note that these levels are for classification purpose only and don't reflect any permission on real call service type (as local, long-distance calls ...) which you need to check with your service provider.

Note: UCM6XXX series include UCM6100 series (UCM6102, UCM6104, UCM6108 and UCM6116), UCM6200 series (UCM6202, UCM6204 and UCM6208) and UCM6510.



CONFIGURING EXTENSION PERMISSION

On the UCM6XXX web GUI, create an extension under **Extension/Trunk→Extensions**. Users shall see "Permission" option with four levels in the drop down list.



The screenshot shows the 'Create New Extension' web GUI. The 'Basic Settings' tab is active. The 'Permission' dropdown menu is highlighted with a red box, showing the following options: Internal, Local, National, and International. The 'Internal' option is currently selected.

Fields visible in the form include:

- Select Extension Type: SIP Extension
- Select Add Method: Single
- Extension: 1000
- Permission: Internal
- AuthID: Internal
- Voicemail Password: Local
- Enable Keep-alive: [checkbox]
- Disable This Extension: [checkbox]
- CallerID Number: [text box]
- SIP/IAX Password: Qlfsk8
- Enable Voicemail: [checked]
- Skip Voicemail Password Ve... [checkbox]
- Keep-alive Frequency: 60
- First Name: [text box]
- Last Name: [text box]
- Email Address: [text box]
- User Password: ~9V3y9
- Language: Default
- Concurrent Registrations: 1
- Mobile Phone Number: [text box]

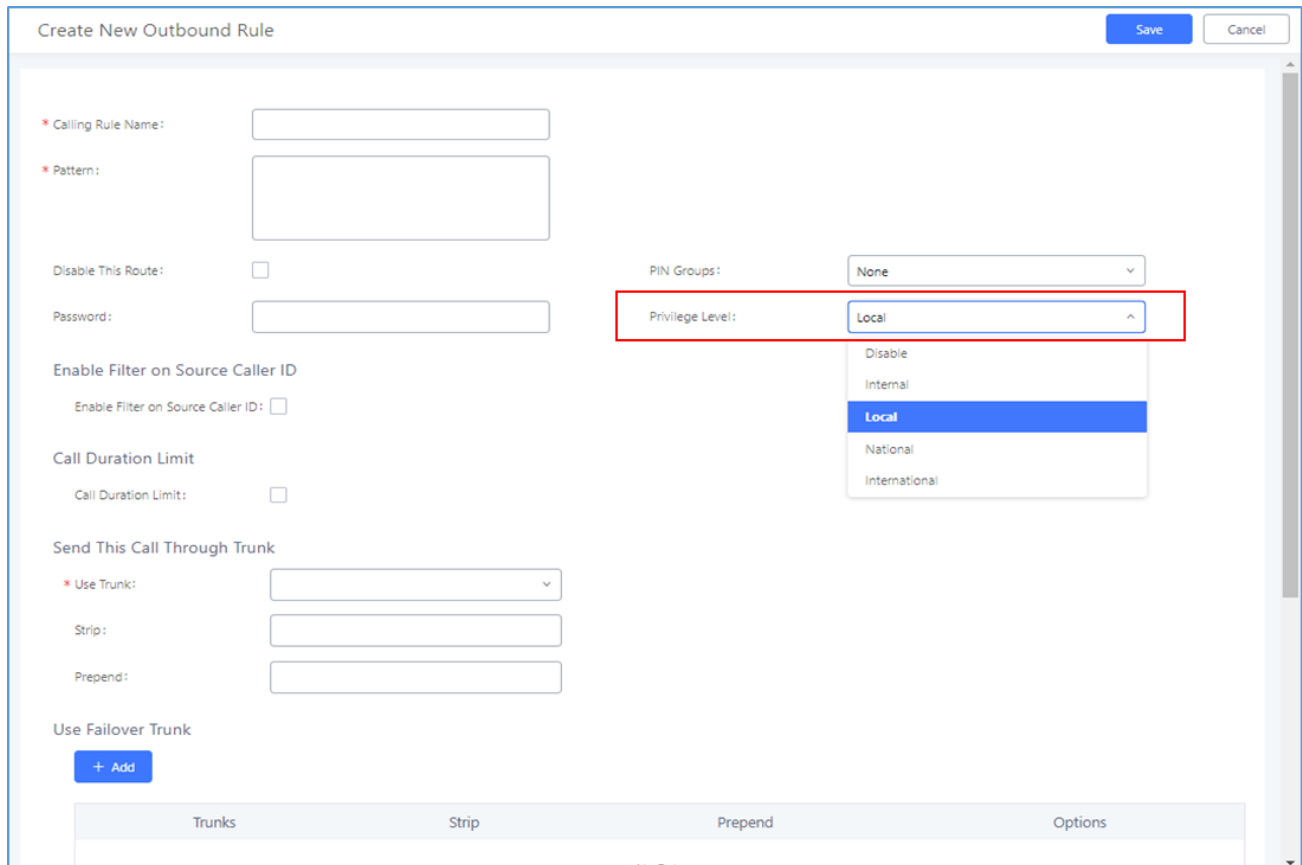
Figure 1: Create an extension on UCM6XXX

This "**Permission**" option restricts whether this extension could be used to make desired outgoing calls. The extension needs to be assigned with higher level (or equal level) permission compared to the outbound rule's privilege in order to make outbound calls with that rule.



CONFIGURING OUTBOUND ROUTE PRIVILEGE

When creating a new outbound rule under **Extension/Trunk→Outbound Routes**, users shall see "Privilege Level" option with four levels in the drop-down list.



The screenshot shows the 'Create New Outbound Rule' configuration window. The 'Privilege Level' dropdown menu is highlighted with a red box, showing the following options: Disable, Internal, Local (selected), National, and International. Other fields include: Calling Rule Name, Pattern, Disable This Route, Password, PIN Groups (set to None), Enable Filter on Source Caller ID, Call Duration Limit, Send This Call Through Trunk, and Use Failover Trunk.

Figure 2: Create an Outbound Route on UCM6XXX

When making an outbound call via this route from an UCM6XXX extension, the UCM6XXX will compare the extension's permission level with the outbound route's privilege level. If the extension's permission level is higher than (or equal to) the outbound route's privilege level, the call will be allowed to go through.

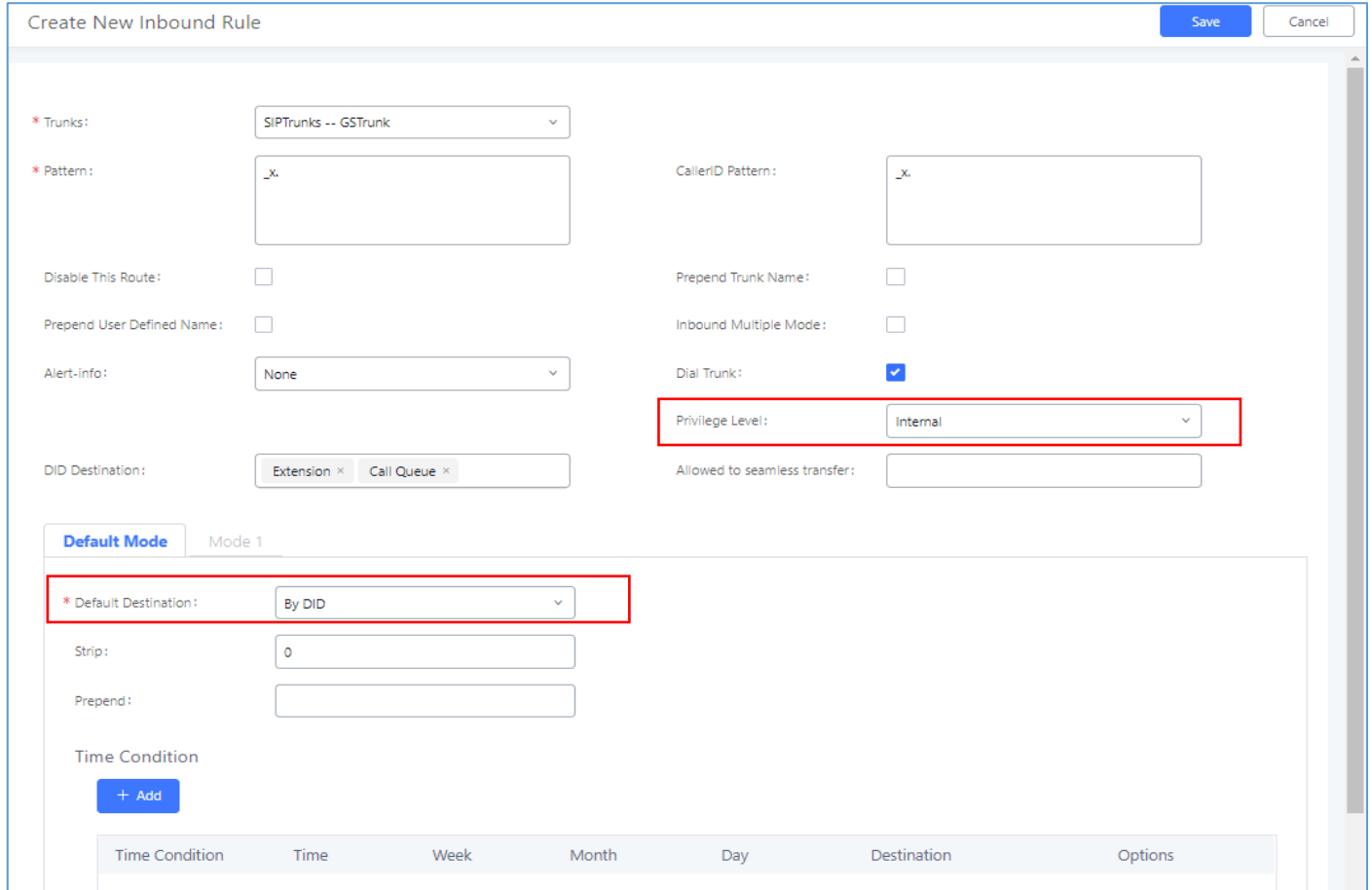
Please see more descriptions below:

- **Disable:** It can only be used by matched Source Caller ID.
- **Internal:** The lowest level required. All users can use this rule.
- **Local:** Users with Local, National, or International level are allowed to use this rule.
- **National:** Users with National or International level are allowed to use this rule.
- **International:** The highest level required. Only users with international level can use this rule.



CONFIGURING INBOUND ROUTE PRIVILEGE

When creating a new inbound rule under **Extension/Trunk→Inbound Routes**, users shall see "Privilege Level" option with four levels in the drop-down list.



The screenshot shows the 'Create New Inbound Rule' configuration interface. Key elements include:

- Trunks:** SIPTrunks -- GStrunk
- Pattern:** _x.
- CallerID Pattern:** _x.
- Disable This Route:**
- Prepend Trunk Name:**
- Prepend User Defined Name:**
- Inbound Multiple Mode:**
- Alert-info:** None
- Dial Trunk:**
- Privilege Level:** Internal (highlighted with a red box)
- Allowed to seamless transfer:** (empty field)
- DID Destination:** Extension × Call Queue ×
- Default Mode:** Mode 1
- * Default Destination:** By DID (highlighted with a red box)
- Strip:** 0
- Prepend:** (empty field)
- Time Condition:** + Add
- Table:**

Time Condition	Time	Week	Month	Day	Destination	Options

Figure 3: Create an Inbound Route on UCM6XXX

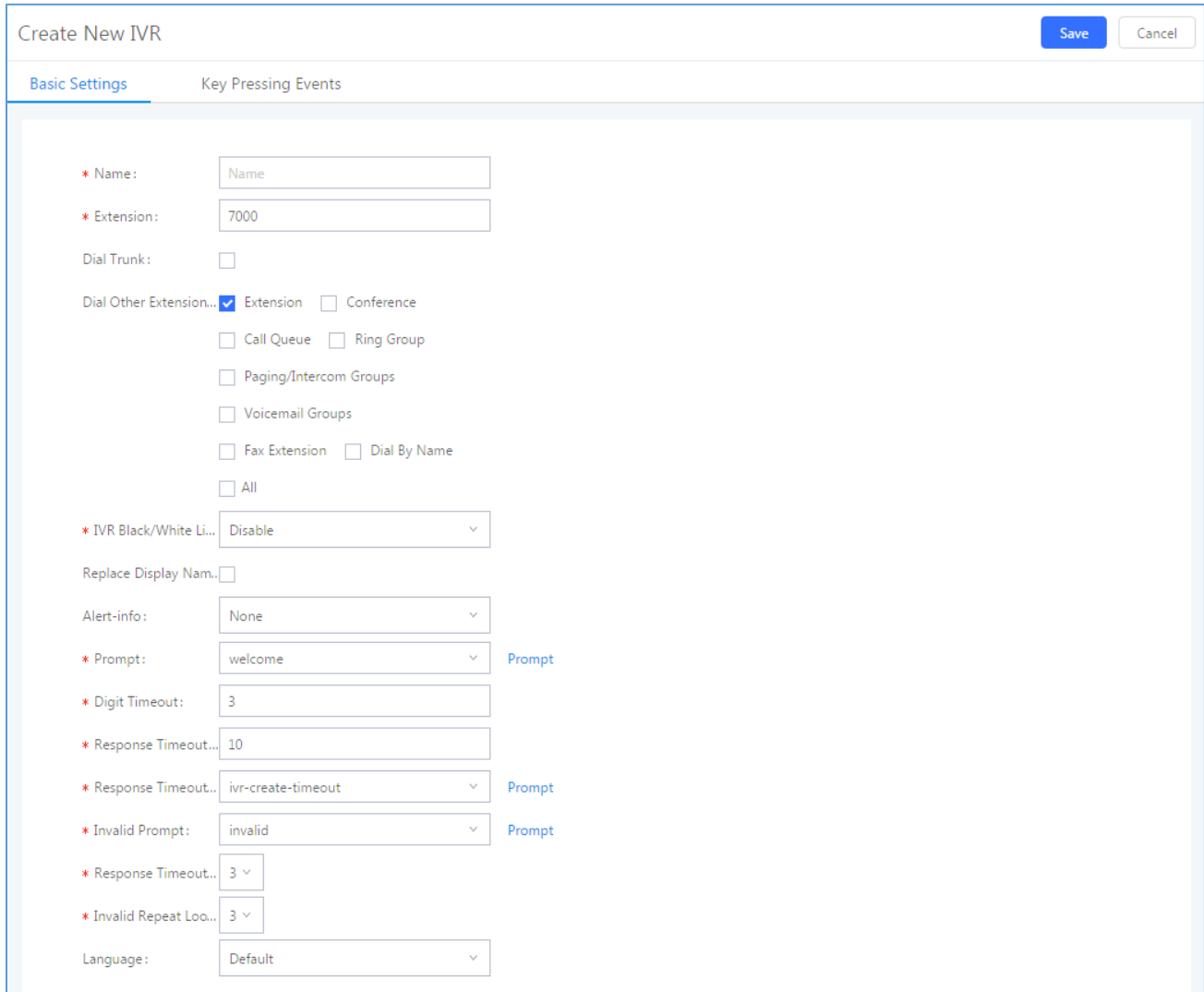
This "**Privilege Level**" option applies to the inbound rule only when "Default Destination" is set to "By DID" and "Dial Trunk" option is enabled. (IVR is handled in a different way, the other options in the "Default Destination" can be considered as internal extension on the UCM6XXX).

When there is an inbound call from the trunk to the UCM6XXX via this inbound route, the UCM6XXX will compare the inbound route's privilege level with the matching outbound route's privilege level (i.e. the DID pattern in this inbound route matches one of the outbound route). 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.



CONFIGURING IVR PERMISSION

When creating an IVR under **Call Features**→**IVR**, users shall see "Dial Trunk" and "Permission" options. By default, the "Dial Trunk" option is disabled. Also, the "Permission" level is set to "Internal" (lowest level) and not configurable.



The screenshot shows the 'Create New IVR' configuration interface. It has two tabs: 'Basic Settings' (selected) and 'Key Pressing Events'. The 'Basic Settings' tab contains the following fields and options:

- Name:** Text input field with 'Name' as a placeholder.
- Extension:** Text input field with '7000' as the value.
- Dial Trunk:** A checkbox that is currently unchecked.
- Dial Other Extension...** A group of radio buttons:
 - Extension
 - Conference
 - Call Queue
 - Ring Group
 - Paging/Intercom Groups
 - Voicemail Groups
 - Fax Extension
 - Dial By Name
 - All
- IVR Black/White Li...:** A dropdown menu with 'Disable' selected.
- Replace Display Nam...:** A checkbox that is unchecked.
- Alert-info:** A dropdown menu with 'None' selected.
- Prompt:** A dropdown menu with 'welcome' selected, with a 'Prompt' label to its right.
- Digit Timeout:** A text input field with '3' as the value.
- Response Timeout...:** A text input field with '10' as the value.
- Response Timeout...:** A dropdown menu with 'ivr-create-timeout' selected, with a 'Prompt' label to its right.
- Invalid Prompt:** A dropdown menu with 'invalid' selected, with a 'Prompt' label to its right.
- Response Timeout...:** A dropdown menu with '3' selected.
- Invalid Repeat Loo...:** A dropdown menu with '3' selected.
- Language:** A dropdown menu with 'Default' selected.

At the top right of the form, there are 'Save' and 'Cancel' buttons.

Figure 4: Create an IVR on UCM6XXX - Default Setting

If "**Dial Trunk**" is enabled, users can specify the IVR permission level. Therefore, the calls coming into IVR can dial outbound via trunk. In this case, the UCM6XXX will compare the IVR's permission level with the outbound route's privilege level. If the IVR's permission level is higher than (or equal to) the outbound route's privilege level, the call will be allowed to go through.

The figure below shows the related settings to use IVR for making outbound calls and set its permission level.



Create New IVR Save Cancel

Basic Settings Key Pressing Events

* Name:

* Extension:

Dial Trunk:

* Permission: ^

Dial Other Extension... **Internal**

- Local
- National
- International

Fax Extension Dial By Name

All

* IVR Black/White Li... v

Replace Display Nam...

Alert-info: v

* Prompt: v Prompt

* Digit Timeout:

* Response Timeout...

* Response Timeout... v Prompt

* Invalid Prompt: v Prompt

* Response Timeout... v

* Invalid Repeat Loo... v

Language: v

Figure 5: Create an IVR on UCM6XXX - Dial Trunk Enabled

