

Location Based Call Routing

sipXecs Location Based Call Routing

sipXecs has the ability to route calls based on the **Branch Location** of a calling phone. This allows for flexibility in routing calls for certain dial patterns out of specific gateways based on which groups and gateways are assigned to a particular branch.

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Branches

By themselves, branches are little more than descriptions of locations. Branches become useful by assigning groups, gateways, and servers to each branch.

Setting Up Branches

To set up a branch in sipXecs browse to **System >> Branches**. To add a new branch, click the **Add Branch** link. You will need to enter the following information:

Field	Data
Name	Branch Name (NO SPACES ALLOWED) such as AdminBldg
Description	Description of the branch, such as Administration Building
Street	Physical street address of the branch
City	City of the branch
State/Province	State or Province of the branch
Country	Country of the branch
Zip/Postal Code	Zip Code of branch
Mail stop	Unknown, not used
Phone	Main phone number for branch
Fax	Main fax number for branch

Click **OK** to save the location.

Adding Groups to a Branch

Assuming you already have a group created:

1. Browse to **Users >> Groups**
2. Select the group you wish to modify
3. Select the branch you wish to assign to the user group
4. Click OK

Adding Gateways to a Branch

There are two ways a gateway can be configured for a branch, **exclusive** and **shared**. **Exclusive** gateways can only be used by members of the branch that is assigned to the gateway while **shared** gateways can be used by anyone on the system provided they have proper permissions for the dialplan the gateway is assigned to (more on this later), but members of the location assigned to this gateway will use this gateway first in the dialplan should there be multiple shared gateways assigned to different branches.

Assuming you already have a gateway set up in sipXecs:

1. Browse to **Devices >> Gateways**
2. Select the gateway you wish to modify

3. In the **Location** drop down menu select the branch you wish to assign to the gateway
4. If you wish to make this gateway a **shared** gateway, select the **Shared** checkbox.
5. Click OK

Dialplan Configuration

In general, it is best practice in the dialplan order to set exclusive gateways to come before shared gateways so that calls will be attempted through exclusive gateways before they are attempted through shared gateways. For example, you always want users to be able to dial emergency services such as 911 even if the local voice gateway is malfunctioning or otherwise offline.

As a configuration example we'll create a fictitious 3 branch system, with branches **AdminBldg**, **IT**, and **Warehouse**, each with an FXO gateway. The branches and gateways would be configured as follows:

Branch	Gateway	Shared
IT	IT-FXO (10.1.10.5)	Yes
AdminBldg	Admin-Bldg-FXO (10.1.11.5)	No
Warehouse	Warehouse-FXO (10.1.12.5)	No

Now you'll need to edit the appropriate dial plan rule (in this example, Emergency Dialing) under **System >> Dial Plans** and add the gateways by selecting the **More Actions** dropdown menu and adding them in the following order:

1. Warehouse-FXO
2. AdminBldg-FXO
3. IT-FXO



Notice how the shared IT-FXO gateway is last in the list. This is so that if a call cannot be placed through one of the location specific gateways then as a last resort the call will be routed through the IT-FXO gateway.