



## Configuring Route Lists

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Route lists are made up of route groups which consist of a list of resources (gateways). A route list associates a set of route groups with a route pattern and determines the order in which those route groups are accessed. The order controls the progress of the search for available trunk devices for outgoing calls.

A route list is a collection of resources (gateways, route groups) that route calls that match the defined route pattern. Once a call is determined by the Cisco CallManager to be routed through a defined route list, the Cisco CallManager finds the first available device based on the order of the route group(s) defined in a route list. There should be at least one route group in each route list. Within each route group, there should be at least one device, such as a gateway, available. Some, or all, ports can be selected as resources in each route group based on device type. Some devices, such as digital access, only allow you to select all ports.

Each route list can contain the same route groups that have already been selected by other route lists.

Use the following procedures to add or remove route lists or to add, remove or change the order of route groups in a route list:

- Adding a Route List, page 25-6
- Adding Route Groups to a Route List, page 25-8
- Removing Route Groups from a Route List, page 25-10
- Changing the Order of Route Groups in a Route List, page 25-11
- Deleting a Route List, page 25-12

# Understanding Calling Party Transform Settings

Calling party transform settings allow you to manipulate the appearance of the calling party's number for outgoing calls. The calling party's number is used for Calling Line Identification (CLID). During an outgoing call, the CLID is passed to each private branch exchange (PBX), central office (CO), and inter-exchange carrier (IXC) as the call progresses. The CLID is also delivered to the calling party when the call completes.

The calling party transform settings used in route lists are assigned to the individual route groups comprising the list, rather than the route list as a whole. The calling party transform settings assigned to the route groups in a route list override any calling party transform settings assigned to a route pattern associated with that route list.

Table 25-1 describes the fields, options, and values used to specify calling party transform for a route group.

**Table 25-1 Calling Party Transform Settings**

Field Name	Description
Use Calling Party's External Phone Number Mask	<p>This field determines whether or not the full, external phone number is used for CLID on outgoing calls. The options for this field are Default, Off, and On.</p> <ul style="list-style-type: none"> <li>• <b>Default:</b> This setting indicates that the calling party external phone number and calling party transform masks are not governed by the route group. If a calling party external phone number mask or transform mask is selected for the route pattern, calls that are routed through this route group will use those masks.</li> <li>• <b>Off:</b> This setting indicates that the calling party's external phone number is not used for CLID. If no transform mask is entered for this route group, calls that are routed through this group are not associated with a CLID.</li> <li>• <b>On:</b> This setting indicates that the calling party's full, external number is used for CLID.</li> </ul>
Calling Party Transform Mask	<p>This field specifies the calling party transform mask for all calls routed through this route group. Valid values for this field are the numbers 0 through 9, and the wildcard character X. This field can also be left blank. If it is blank and the preceding field is set to Off, no calling party number is available for CLID.</p> <p>The calling party transform mask can contain up to 50 digits.</p>

**Related Topics**

- Route Plan Overview, page 6-1
- Understanding Route Pattern Wildcards and Special Characters, page 6-7


# Understanding Called Party Transform Settings

Called party transform settings allow you to manipulate the dialed digits, or called party's number, for outgoing calls. Examples of manipulating called numbers include appending or removing prefix digits (outgoing calls), appending area codes to calls dialed as seven-digit numbers, appending area codes and office codes to interoffice calls dialed as four- or five-digit extensions, and suppressing carrier access codes for equal access calls.

The called party transform settings used in route lists are assigned to the individual route groups comprising the list, rather than the route list as a whole. The called party transform settings assigned to the route groups in a route list override any called party transform settings assigned to a route pattern associated with that route list.

Table 25-2 describes the fields, options, and values used to specify called party transform for a route group.

**Table 25-2 Called Party Transform Settings**

Field Name	Description
Dial Plan	<p data-bbox="674 321 1233 412">This field determines which dialing plan is used. If it is not already selected, change this field to North American Numbering Plan.</p> <div data-bbox="674 431 1233 675"> <b>Note</b> The Dial Plan field only appears when inserting a route group in a route list. Once the route group is inserted, this field cannot be modified.</div>
Discard Digits	<p data-bbox="674 740 1233 990">This field contains a list of discard patterns that control the discard digit instructions. For example, in a system where users must dial 9 to make a call to the Public Switched Telephone Network (PSTN), the PreDot discard pattern causes the 9 to be stripped from the dialed digit string. Refer to the “Understanding Discard Digits Instructions” section on page 6-12 for more information.</p>

*Table 25-2 Called Party Transform Settings (continued)*

Field Name	Description
Called Party Transform Mask	<p>This field specifies the called party transform mask for all calls routed through this route group. Valid values for this field are the numbers 0 through 9, and the wildcard character X. This field can also be left blank. If this field is blank, no transformation takes place—the dialed digits are sent exactly as dialed.</p> <p>The calling party transform mask can contain up to 50 digits.</p>
Prefix Digits (Outgoing Calls)	<p>This field contains a prefix digit or a set of Prefix Digits (Outgoing Calls) that are appended to the called party number on all calls routed through this route group. Valid values for this field are the numbers 0 through 9 and blank. Prefix Digits (Outgoing Calls) can contain up to 50 digits.</p>

**Related Topics**

- Route Plan Overview, page 6-1
- Understanding Route Pattern Wildcards and Special Characters, page 6-7
- Understanding Discard Digits Instructions, page 6-12

## Adding a Route List

The following procedure describes how to add a route list.

**Procedure**

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- Step 1** Open Cisco CallManager Administration.
  - Step 2** Select **Route Plan > Route List** in the menu bar.

- Step 3** Enter a name in the Route List Name field. The name can consist of up to 50 alphanumeric characters, and can contain any combination of spaces, periods (.), hyphens (-), and underscore characters (\_). Each route list name must be unique to the route plan.

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Use concise and descriptive names for your route lists. The CompanynameLocationCalltype format usually provides a sufficient level of detail and is short enough to enable you to quickly and easily identify a route list. For example, CiscoDallasMetro identifies a route list for toll free inter-LATA (Local Access and Transport Area) calls from the Cisco office in Dallas.

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- Step 4** Click **Insert** to add this route list.
- Step 5** Type a description for the route list in the Description field and click **Update**.
- Step 6** Click **New** and repeat Steps 3 through 5 to add another route list. Click **Add Route Group** and perform Steps 5 through 9 of the “Adding Route Groups to a Route List” section on page 25-8 to add a route group to this list.
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**Related Topics**

- Route Plan Overview, page 6-1
- Understanding Route Groups, page 24-2
- Adding Route Groups to a Route List, page 25-8
- Changing the Order of Route Groups in a Route List, page 25-11
- Removing Route Groups from a Route List, page 25-10
- Deleting a Route List, page 25-12

# Adding Route Groups to a Route List

You can add route groups to a new route list or an existing route list. The following procedure describes adding a route group to an existing route list.

## Before You Begin

You must build one or more route groups and add a route list before performing this procedure.

## Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Select **Route Plan > Route List** in the menu bar.
- Step 3** Select a name from the route lists on the left side of the page.
- Step 4** Click **Add Route Group**.
- Step 5** Select a route group to add to the list from the Select Route Group drop-down list box.
- Step 6** Click **Add**.
- Step 7** If you need to manipulate the calling party's number on calls routed through this route group, set up the calling party transform in the appropriate fields.



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**Note** For more information on calling party transform, see [Understanding Calling Party Transform Settings, page 25-2](#).

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- Step 8** If you need to manipulate the dialed digits on calls routed through this route group, set up the called party transform in the appropriate fields.



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**Note** For more information on called party transform, see [Understanding Called Party Transform Settings, page 25-4](#).

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- Step 9** Click **Insert** to add the route group. The new route group name is added to the route list on the left side of the page and the message “Status: Insert completed” is displayed.

- Step 10** Click **Add Route Group to the current Route List** and repeat Steps 5 through 9 to add more route groups to this list. Click **Add new Route List** and perform Steps 3 through 5 of the “Adding a Route List” section on page 25-6 to add another route list.
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#### Related Topics

- [Route Plan Overview](#), page 6-1
- [Understanding Calling Party Transform Settings](#), page 25-2
- [Understanding Called Party Transform Settings](#), page 25-4
- [Adding a Route List](#), page 25-6
- [Changing the Order of Route Groups in a Route List](#), page 25-11
- [Removing Route Groups from a Route List](#), page 25-10
- [Deleting a Route List](#), page 25-12

# Removing Route Groups from a Route List

You can remove route groups from a new route list or from an existing route list. The following procedure describes removing a route group from an existing route list.

## Procedure

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- Step 1 Open Cisco CallManager Administration.
- Step 2 Select **Route Plan > Route List** in the menu bar.
- Step 3 Select a name from the route lists on the left side of the page.
- Step 4 Select one or more route group names from the Selected Route Groups list.



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**Note** To select multiple route groups from the list, press the **Shift** key and click on **Multiple Route Groups**.

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- Step 5 Click **Remove Route Group**.
  - Step 6 A dialog box appears warning you that removing route groups from a route list cannot be undone.
  - Step 7 Click **OK** to remove the route group, or click **Cancel** to cancel the action. If you click **OK**, when the page refreshes, the route group is removed from the route list and the message “Status: Ready” is displayed.
  - Step 8 Select a route group name from the Selected Route Groups list and repeat Steps 5 through 7 to remove another route group from this route list.
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## Related Topics

- Route Plan Overview, page 6-1
- Adding a Route List, page 25-6
- Adding Route Groups to a Route List, page 25-8
- Changing the Order of Route Groups in a Route List, page 25-11
- Deleting a Route List, page 25-12

# Changing the Order of Route Groups in a Route List

Route groups are accessed in the order in which they appear in the route list. The following procedure allows you to change the access order of route groups.

## Procedure

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- Step 1** Open Cisco CallManager Administration.
  - Step 2** Select **Route Plan > Route List** in the menu bar.
  - Step 3** Select a name from the route lists on the left side of the page.
  - Step 4** Select a route group name from the Selected Route Groups list.
  - Step 5** Click the up or down arrows on the right side of the list box to move the route group up or down in the list.
  - Step 6** Select a route group name from the Selected Route Groups list and repeat Steps 4 and 5 to move another route group in the route list.
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## Related Topics

- [Route Plan Overview, page 6-1](#)
- [Adding a Route List, page 25-6](#)
- [Adding Route Groups to a Route List, page 25-8](#)
- [Removing Route Groups from a Route List, page 25-10](#)
- [Deleting a Route List, page 25-12](#)

# Deleting a Route List

Route lists are associated with both route groups and route patterns, however neither route groups nor route patterns are deleted when the route list is deleted.

The following procedure describes how to delete a route list.

## Procedure

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- Step 1 Open Cisco CallManager Administration.
- Step 2 Select **Route Plan > Route List** in the menu bar.
- Step 3 Select a name from the route lists on the left side of the page.
- Step 4 Click **Delete**.
- Step 5 A dialog box appears warning you that removing a route list cannot be undone.
- Step 6 Click **OK** to remove the route list, or click **Cancel** to cancel the action. If you click **OK**, when the page refreshes, the route list is removed and the message “Status: Ready” is displayed.
- Step 7 Repeat Steps 3 through 6 to remove another route list.



### Warning

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If you delete a route list that is associated with a route pattern in the Route Pattern Configuration page, the route pattern will not have a route list associated with it. This means that any calls that match the route patterns will not be routed until you select another route list/gateway to be associated with that route pattern.

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## Related Topics

- Route Plan Overview, page 6-1
- Adding a Route List, page 25-6
- Adding Route Groups to a Route List, page 25-8
- Changing the Order of Route Groups in a Route List, page 25-11
- Removing Route Groups from a Route List, page 25-10