

Call Pickup Group

The Call Pickup feature allows users to answer calls that come in on a directory number other than their own. The "Introducing Call Pickup Group" section on page 10-1 describes this feature.

This section covers the following topics:

- Introducing Call Pickup Group, page 10-1
- System Requirements for Call Pickup Group, page 10-3
- Interactions and Restrictions, page 10-4
- Installing and Activating Call Pickup Group, page 10-6
- Configuring Call Pickup Group, page 10-6
- Related Topics, page 10-15

Introducing Call Pickup Group

Cisco IP Phones provide three types of call pickup: call pickup, group call pickup, and other group call pickup.

- Call pickup—Allows users to pick up incoming calls within their own group. Cisco CallManager automatically dials the appropriate call pickup group number when the user activates this feature from a Cisco IP Phone. Use the softkey, PickUp, for this type of call pickup.
- Group call pickup—Allows users to pick up incoming calls in another group. User must dial the appropriate call pickup group number when activating this feature from a Cisco IP Phone. Use the softkey, GPickUp, for this type of call pickup.



The same procedures apply for configuring call pickup and group call pickup features. Group call pickup numbers apply to lines or directory numbers.

Other group call pickup—Allows users to pick up incoming calls in a group that is associated with
their own group. The Cisco CallManager automatically searches for the incoming call in the
associated groups to make the call connection when the user activates this feature from a
Cisco IP Phone. Use the softkey, oPickup, for this type of call pickup.

When more than one associated group exists, the priority of answering calls for the associated group goes from the first associated group to the last associated group. For example, groups A, B, and C associate with group X, and the priority of answering calls goes to group A, B, and then C. First, group X picks up incoming call in group A, though a call may have come in earlier in group C than the incoming call in group A.



Usually, within the same group, the longest alerting call (longest ringing time) gets picked up first if multiple incoming calls occur in that group. For other group call pickup, priority takes precedence over the ringing time if multiple associated pickup groups are configured.

Both idle and offhook call states make the three softkeys, PickUp, GPickUp, and oPickup, available. The administrator must modify the standard softkey template to include these softkeys for the users to invoke the Call Pickup feature. See the "Call Pickup Group Configuration Checklist" section on page 10-6 and the "Other Group Call Pickup Configuration Checklist" section on page 10-8.

Auto Call Pickup

You can automate call pickup, group pickup, and other group pickup by enabling the service parameter Auto Call Pickup Enabled.

When this parameter is enabled, Cisco CallManager automatically connects users to the incoming call in their own pickup group, in another pickup group, or a pickup group that is associated with their own group after users press the appropriate softkey on the phone. This action requires only one keystroke.

Auto call pickup connects the user to an incoming call in the user's own group. When the user presses the Pickup softkey on the phone, Cisco CallManager locates the incoming call in the group and completes the call connection. If automation is not enabled, the user must press the softkeys, Pickup and Answer, to make the call connection.

Auto group call pickup connects users to an incoming call in another pickup group. The user presses the GPickUp softkey on the phone, then dials the DN of that other pickup group. Upon receiving the DN, Cisco CallManager completes the call connection. If auto group call pickup is not enabled, the user must press the GPickUp softkey, dial the DN of another pickup group, and answer the call to make the connection.

Auto other group call pickup connects user to an incoming call in a group that is associated with the user's own group. The user presses the oPickup softkey on the phone. Cisco CallManager automatically searches for the incoming call in the associated groups in the sequence that the administrator enters in the Pickup Group Configuration window and completes the call connection after the call is found. If automation is not enabled, the user must press the softkeys, oPickup and Answer, to make the call connection.



CTI applications supports monitoring the party whose call is picked up. CTI applications do not support monitoring the pickup requester or the destination of the call that is picked up. Hence, Cisco IPMA does not support auto call pickup (one-touch call pickup).

Call Pickup No Answer

When a call pickup occurs with the service parameter Auto Call Pickup Enabled set to false, the call forward configured on the phone, when one of the pickup softkeys is pressed, gets ignored. If the call pickup requestor does not answer the call, the original call is restored after the pickup no answer timer expires.

Call Pickup Busy

When a call pickup occurs with the service parameter Auto Call Pickup Enabled set to false, the original call is restored while the call pickup requestor phone is busy.

Call Pickup No Bandwidth

When a call pickup occurs with the service parameter Auto Call Pickup Enabled set to false, the original call is restored when there is no bandwidth between the call originator and requestor phones.

Additional Information

See the "Related Topics" section on page 10-15.

Using Call Pickup Features with Partitions to Restrict Access

You can restrict access to call pickup groups by assigning a partition to the call pickup group number. When this configuration is used, only the phones that have a calling search space that includes the partition with the call pickup group number can participate in that call pickup group. Make sure that the combination of partition and group number is unique throughout the system.

- If call pickup group numbers are assigned to a partition, only those phones that can dial numbers in that partition can use the call pickup group.
- If partitions represent tenants in a multitenant configuration, make sure that the pickup groups are assigned to the appropriate partition for each tenant.

A multitenant configuration provides an example of using partitions with call pickup groups. Assign the pickup groups to the appropriate partition for each tenant, and the group number will not be visible to other tenants.

System Requirements for Call Pickup Group

To operate, call pickup group requires the following software component:

Cisco CallManager 5.0

The following SCCP and SIP phones support call pickup group with Pick Up (PickUp) and Group Pickup (GPickUp) softkeys in the Standard User and Standard Feature softkey templates:

• Cisco IP Phones (models 7941, 7961, 7970, 7971)

The following SCCP phones support call pickup group with the Pick Up (PickUp) and Group Pickup (GPickUp) softkeys in the Standard User and Standard Feature softkey templates:

Cisco IP Phones (models 7905, 7912, 7920, 7940, 7960)



The administrator must add the Other Pickup (oPickup) softkey to the softkey templates.

Interactions and Restrictions

The following sections describe the interactions and restrictions for call pickup:

- Interactions, page 10-4
- Restrictions, page 10-5

Interactions

The following sections describe how call pickup group interacts with Cisco CallManager applications and call processing:

- Route Plan Report, page 10-4
- Calling Search Space and Partitions, page 10-4
- Time of Day, page 10-4
- Call Accounting, page 10-5
- Dependency Records, page 10-5

Route Plan Report

The route plan report displays the patterns and directory numbers that are configured in Cisco CallManager. Use the route plan report to look for overlapping patterns and directory numbers before assigning a directory number to call pickup group. Refer to the Route Plan Report chapter in the Cisco CallManager Administration Guide.

Calling Search Space and Partitions

Assign a partition to the Call Pickup Group number to limit call pickup access to users on the basis of the device calling search space. Refer to Calling Search Space Configuration and Partition Configuration in the Cisco CallManager Administration Guide.

Time of Day

To pick up calls from a group that is associated with your own group, you must configure the calling search space, partition, and the Time of Day (TOD) parameter for members in the associated group to be active and able to accept calls within the same time period as your own group. TOD associates a time stamp to the calling search space and partition.

For example, a partition, ABC, remains active between 9 am to 5 pm. A calling search space, cssABC, contains partition ABC. A pickup group, pickABC contains phone 1 and phone 2. Phone 1 and phone 2 reside in the same calling search space, cssABC. If phone 1 rings at 5:30 pm and phone 2 tries to pick up the call, this attempt fails because the partition is not active after 5 pm. If phone 1 rings at 9:30 am, phone 2 can pick up the call.

Call Accounting

Call Pickup Groups interact with call accounting.

- When a call pickup occurs via auto call pickup, the system generates two call detail records (CDRs).
 One CDR applies to the original call that is cleared, and another CDR applies to the requesting call that is connected.
- When a call pickup occurs via non-auto call pickup, the system generates one call detail record, which applies to the requesting call that is connected.
- A CDR search returns all CDRs that match a specific time range and other search criteria as specified. If users are interested in the type of call that is associated with a particular CDR, the search result displays a call type field that indicates whether the call is a pickup call.

Dependency Records

If you need to find devices to which a specific call pickup number is assigned, click the Dependency Records link that the Cisco CallManager Administration Pickup Group Configuration window provides. The Dependency Records Summary window displays information about devices that are using the call pickup number.

If a pickup group is associated with other pickup groups, the dependency record of the pickup group shows the association information. For example, if pickup group A is associated with pickup group B and pickup group C, the dependency record of pickup group A shows the information on the association of pickup group A to pickup group B and C.

To find out more information about the devices, click the device, and the Dependency Records Details window displays. If the dependency records are not enabled for the system, the dependency records summary window displays a message.

For more information about Dependency Records, refer to "Accessing Dependency Records" in the Cisco CallManager Administration Guide.

Restrictions

The following restrictions apply to call pickup group:

- Although different lines on a phone can be assigned to different call pickup groups, Cisco does not recommend this setup because it can be confusing to users.
- You cannot delete a call pickup group number when it is assigned to a line or directory number. To
 determine which lines are using the call pickup number, use Dependency Records. To delete a call
 pickup group number, reassign a new call pickup group number to each line or directory number.
- When you update a call pickup group number, Cisco CallManager automatically updates all directory numbers that are assigned to that call pickup group.

Cisco CallManager Attendant Console does not work with the call pickup group feature. The
attendant console user interface cannot appropriately handle calls coming from or made to phones
belonging to a call pickup group due to JTAPI and CTI limitations.

Installing and Activating Call Pickup Group

Call pickup group, a system feature, comes standard with Cisco CallManager software. It does not require special installation.

Configuring Call Pickup Group

This section contains the following information:

- Call Pickup Group Configuration Checklist, page 10-6
- Other Group Call Pickup Configuration Checklist, page 10-8
- Setting the Service Parameters for Call Pickup Group, page 10-9
- Finding a Call Pickup Group, page 10-10
- Configuring a Call Pickup Group, page 10-11
- Call Pickup Group Configuration Settings, page 10-12
- Deleting a Call Pickup Group, page 10-13
- Defining a Pickup Group for Other Group Call Pickup, page 10-13
- Assigning A Call Pickup Group to Directory Numbers, page 10-14

Call Pickup Group Configuration Checklist

Table 10-1 provides a checklist to configure Call Pickup Group.

Table 10-1 Call Pickup Group Configuration Checklist

Configuration Steps		Related procedures and topics
Step 1	Configure partitions if you will be using them with call pickup groups.	Configuring a Partition, Cisco CallManager Administration Guide Using Call Pickup Features with Partitions to Restrict Access, page 10-3
Step 2	Configure a call pickup group. Make sure that the name and number are unique.	Configuring a Call Pickup Group, page 10-11

Table 10-1 Call Pickup Group Configuration Checklist (continued)

Configuration Steps		Related procedures and topics	
Step 3	Assign the call pickup group that you created in Step 2 to the directory numbers that are associated with phones on which you want to enable call pickup:	Assigning A Call Pickup Group to Directory Numbers, page 10-14	
	• Only directory numbers that are assigned to a call pickup group can use the Call Pickup feature.		
	• If partitions are used with call pickup numbers, make sure that the directory numbers that are assigned to the call pickup group have a calling search space that includes the appropriate partitions.		
Step 4	Add a call pickup or group call pickup button to the phone button templates, if needed.	Configuring Phone Button Templates, Cisco CallManager Administration Guide	
	You only need to do this for Cisco IP Phone model 12 SP, 12 SP+, and 30 VIP.		
Step 5	Assign the Standard User or Standard Feature softkey template to the phone that will be using the Pickup (PickUp) and Group Call Pickup (GPickUp) softkeys.	Assigning Softkey Templates to IP Phones, Cisco CallManager Administration Guide	
	Note To restrict calls to be picked up by phones within its own group only, deny the GPickUp or oPickup softkeys in the softkey template by moving them to the Unselected box that is in the Softkey Configuration window.		
Step 6	If you want automatic call answering for call pickup groups, enable	Auto Call Pickup, page 10-2.	
	the Auto Call Pickup Enabled service parameter by choosing the value True. The default specifies False.	Service Parameters Configuration, Cisco CallManager Administration Guide	
Step 7	If the Auto Call Pickup Enabled service parameter is false, enter a value for the Call Pickup No Answer Timer service parameter. This parameter controls the amount of time that a call takes to get restored if a call is picked up by using call pickup, group call pickup, or other group call pickup.	Service Parameters Configuration, Cisco CallManager Administration Guide	
Step 8	Enter a value for the Pickup Locating Timer service parameter. This parameter controls the time for call selection for call pickup, group call pickup, and other group call pickup.	Service Parameters Configuration, Cisco CallManager Administration Guide	
Step 9	Notify users that the Call Pickup feature is available.	Refer to the phone documentation for instructions on how users access the Call Pickup feature on their Cisco IP Phone.	

Additional Information

See the "Related Topics" section on page 10-15.

Other Group Call Pickup Configuration Checklist

Table 10-2 provides a checklist to configure other group call pickup.

Table 10-2 Other Group Call Pickup Configuration Checklist

Configuration Steps		Related procedures and topics
Step 1	Configure a list of associated groups that can be chosen from all pickup groups. The list can include up to ten groups.	Defining a Pickup Group for Other Group Call Pickup, page 10-13
Step 2	Configure Calling Search Space and TOD parameters for members of the associated groups to your group.	Calling Search Space Configuration, Cisco CallManager Administration Guide
		Time-of-Day Routing, Cisco CallManager System Guide
		Time Schedule Configuration, Cisco CallManager Administration Guide
		Time Period Configuration, Cisco CallManager Administration Guide
Step 3	If you want automatic call answering for other group call pickup, enable the Auto Call Pickup Enabled service parameter by entering the value True. The default specifies False.	Auto Call Pickup, page 10-2. Service Parameters Configuration, Cisco CallManager Administration Guide
Step 4	If the Auto Call Pickup Enabled service parameter is false, enter a value for the Call Pickup No Answer Timer service parameter. This parameter controls the amount of time that a call takes to get restored if a call is picked up by other group call pickup.	Service Parameters Configuration, Cisco CallManager Administration Guide
Step 5	Enter a value for the service parameter Pickup Locating Timer. This parameter controls the time for call selection for call pickup, group call pickup and other group call pickup.	Service Parameters Configuration, Cisco CallManager Administration Guide

Table 10-2 Other Group Call Pickup Configuration Checklist (continued)

Configuration Steps		os .	Related procedures and topics
Step 6	phone	nfigure the Other Group Pickup (oPickup) softkey for the , modify and add the Standard User or Standard Feature y template to the phone.	Assigning Softkey Templates to IP Phones, Cisco CallManager Administration Guide
		Ty the template to include the oPickup softkey with the ving steps.	
		hoose Device > Device Settings > Softkey Template in isco CallManager Administration.	
	• C	hoose the desired softkey template.	
	• C	hoose the Softkey Layout Configuration link.	
	• C	hoose On Hook or Off Hook call states.	
	ri	hoose oPickup in the Unselected Softkeys box. Click the ght arrow to move the oPickup softkey to the Selected oftkeys box.	
	Note	To restrict calls to be picked up by phones within its own group only, deny the oPickup softkey in the softkey template.	
Step 7	Notify users that the Call Pickup Group feature is available.		Refer to the phone documentation for instructions on how users access the Call Pickup feature on their Cisco IP Phone.

Additional Information

See the "Related Topics" section on page 10-15.

Setting the Service Parameters for Call Pickup Group

Cisco CallManager provides three clusterwide service parameters for call pickup group: Auto Call Pickup Enabled, Call Pickup Locating Timer, and Call Pickup No Answer Timer. Each service parameter includes a default and requires no special configuration.

- Auto Call Pickup Enabled—Default specifies False. This parameter determines whether the auto call pickup feature is enabled. To enable this capability, set the field to True.
- Call Pickup Locating Timer—Default specifies 1 second. This service parameter specifies the maximum time, in seconds, for a pickup to wait in order to get all alerting calls in the pickup groups from all of the nodes in the cluster.
- Call Pickup No Answer Timer—Default specifies 12 seconds. This parameter specifies the maximum time, in seconds, to wait before restoring the original call if a user, who initiates a pickup request, decides not to pick up the call. This is a required field.



To set the timers, choose **System > Service Parameters**, choose the Advanced icon or click the Advanced button, and update the fields in the **Clusterwide Parameters** (**Feature-Call Pickup**) pane.

Additional Information

See the "Related Topics" section on page 10-15.

Finding a Call Pickup Group

Because you may have several call pickup groups in your network, Cisco CallManager lets you locate call pickup groups on the basis of specific criteria. Use the following procedure to locate call pickup groups.



During your work in a browser session, Cisco CallManager Administration retains your call pickup group search preferences. If you navigate to other menu items and return to this menu item, Cisco CallManager Administration retains your call pickup group search preferences until you modify your search or close the browser.

Procedure

Step 1 Choose Call Routing > Call Pickup Group.

The Find and List Call Pickup Groups window displays. Use the two drop-down list boxes to search for a call pickup group.

Step 2 From the first Find call pickup group where drop-down list box, choose one of the following criteria:

- · Call Pickup Group Number
- Call Pickup Group Name
- Partition

From the second Find call pickup group where drop-down list box, choose one of the following criteria:

- · begins with
- · contains
- · ends with
- · is exactly
- is empty
- · is not empty
- Step 3 Specify the appropriate search text, if applicable, and click **Find**. You can also specify how many items per page to display.



Tin

To find all call pickup groups that are registered in the database, click **Find** without entering any search text.

A list of discovered call pickup groups displays with the following information:

- · Call Pickup Group Name
- Call Pickup Group Number
- · Partition

A Copy icon also appears on the display for duplicating information on any call pickup group.



You can delete multiple call pickup groups from the Find and List Call Pickup Group window by checking the check boxes next to the appropriate call pickup groups and clicking **Delete Selected**. You cannot delete call pickup groups that are assigned to directory numbers and lines.

Step 4 From the list of records, click the call pickup group name that matches your search criteria.

The window displays the call pickup group that you choose.

Additional Information

See the "Related Topics" section on page 10-15.

Configuring a Call Pickup Group

This section describes how to add, copy, and update a single call pickup group.

Procedure

- Step 1 Choose Call Routing > Call Pickup Group.
- **Step 2** Perform one of the following tasks:
 - To add a new Call Pickup Group, click **Add New**.
 - To copy a Call Pickup Group, use the procedure in the "Finding a Call Pickup Group" section on page 10-10 to locate the call pickup group. Click the Copy icon.
 - To update a Call Pickup Group, use the procedure in the "Finding a Call Pickup Group" section on page 10-10 to locate the call pickup group.

The Call Pickup Group Configuration window displays.

- Step 3 Enter or update the appropriate settings as described in Table 10-1.
- Step 4 To save the new or changed call pickup groups in the database, click Save.

Additional Information

See the "Related Topics" section on page 10-15.

Call Pickup Group Configuration Settings

Table 10-3 describes the call pickup group configuration settings. For related procedures, see the "Related Topics" section on page 10-15.

Table 10-3 Pickup Group Configuration Settings

Field	Description	
Pickup Group Information		
Pickup Group Name	Enter up to 30 alphanumeric characters. For example, Operations. The pickup group name associates with the pickup group number. You can choose a pickup group by the pickup group name.	
Pickup Group Number	Enter a unique directory number (integers) for the call pickup group that you want to add.	
Partition	If you want to use a partition to restrict access to the call pickup group, choose the desired partition from the drop-down list box. If you do not want to restrict access to the call pickup group, choose <none> for the partition.</none>	
	You can configure the number of partitions that display in this drop-down list box by using the Max List Box Items enterprise parameter. If more partitions exist than the Max List Box Items enterprise parameter specifies, the ellipsis button () displays next to the drop-down list box. Click the button to display the Select Partition window. Enter a partial partition name in the List items where Name contains field. Click the desired partition name in the list of partitions that displays in the Select item to use box and click OK.	
	Note To set the maximum list box items, choose System > Enterprise Parameters and choose CCMAdmin Parameters.	
	Note Make sure that the combination of call pickup group number and partition is unique within the Cisco CallManager cluster.	
Associated Call Pickup Group Info	ormation—Find Pickup Numbers by Numbers/Partition	
Partition	See the preceding description of Partition in Pickup Group Information in this table.	
Call Pickup Group Numbers Contain	Enter the DN or part of the DN of the pickup group that you want to find; then, click Find .	
Available Call Pickup Groups	To add a member to the Associated Call Pickup Group list in the Current Associated Call Pickup Groups Information area, choose a Call Pickup Group from this list; then, click Add to Associated Call Pickup Groups .	

Table 10-3 Pickup Group Configuration Settings (continued)

Field	Description	
Current Associated Call Pickup Groups		
Selected Call Pickup Groups	To change order of the Call Pickup Groups listings, use the Up and Down arrows on the right side of this box to move the listings. Click Reverse Order of Selected Numbers to reverse the order of the listings. Use the Up and Down arrows below this box to move a call pickup group from this box to the Removed Call Pickup Groups box.	
Removed Call Pickup Groups	Use the Up and Down arrows above this box to move a call pickup group from this box to the Selected Call Pickup Groups box.	

Deleting a Call Pickup Group

This section describes how to delete a call pickup group from the Cisco CallManager database.

Before You Begin

You cannot delete a call pickup group number that is assigned to a line or directory number. To see a list of the directory numbers that are using this call pickup group, click the **Dependency Records** link. If the dependency records are not enabled for the system, the dependency records summary window displays a message. For more information about Dependency Records, see the "Accessing Dependency Records" section in the *Cisco CallManager Administration Guide*. To enable call pickup again for those directory numbers, you must reassign each of them to a new call pickup group. For details, see the "Assigning A Call Pickup Group to Directory Numbers" section on page 10-14.

Procedure

- Step 1 Locate the call pickup group by using the procedure in the "Finding a Call Pickup Group" section on page 10-10.
- Step 2 Click the call pickup group that you want to delete.
- Step 3 Click Delete.

The call pickup group no longer displays in the Call Pickup Group Find/List window.

Additional Information

See the "Related Topics" section on page 10-15.

Defining a Pickup Group for Other Group Call Pickup

This section describes how to associate a call pickup group to your group for answering incoming calls for this associated group. You can associate up to ten call pickup groups with your group. The priority of answering calls for the associated groups goes from the first associated group to the last associated group on the associated group list. You can organize the list in the Call Pickup Group Configuration window as described in Table 10-1.

Procedure

- Step 1 Locate your group by using the procedure in the "Finding a Call Pickup Group" section on page 10-10.
- Step 2 In the Call Pickup Group Configuration window, scroll down to the Associated Call Pickup Group Information area.
- Step 3 Enter information in the appropriate fields as described in Table 10-1.
- Step 4 Click Save.

Additional Information

See the "Related Topics" section on page 10-15.

Assigning A Call Pickup Group to Directory Numbers

This section describes how to assign a call pickup group to a directory number. Only directory numbers that are assigned to a call pickup group can use call pickup, group call pickup, and other group call pickup.

Before You Begin

Before you can assign a call pickup group to a directory number, you must create the call pickup group as described in the "Configuring a Call Pickup Group" section on page 10-11.

Procedure

- Step 1 Choose Device > Phone or Call Routing > Directory Number.
- Step 2 Enter the appropriate search criteria to find the phone or directory number that you want to assign to a call pickup group and click **Find**.

A list of phones or directory numbers that match the search criteria displays.

- Step 3 Choose the phone or directory number to which you want to assign a call pickup group.
- **Step 4** If you are using the Directory Number Configuration window, proceed to Step 6.
- Step 5 From the Association Information list on the Phone Configuration window, choose the directory number to which the call pickup group will be assigned.
- Step 6 From the Call Pickup Group drop-down list box that displays in the Call Forward and Call Pickup Settings area, choose the desired call pickup group.
- Step 7 To save the changes in the database, click **Save**.

Additional Information

See the "Related Topics" section on page 10-15.

Related Topics

- Call Pickup Group, page 10-1
- Finding a Call Pickup Group, page 10-10
- Configuring a Call Pickup Group, page 10-11
- Call Pickup Group Configuration Settings, page 10-12
- Deleting a Call Pickup Group, page 10-13
- Defining a Pickup Group for Other Group Call Pickup, page 10-13
- Assigning A Call Pickup Group to Directory Numbers, page 10-14
- Cisco IP Phone Configuration, Cisco CallManager Administration Guide
- Partition Configuration, Cisco CallManager Administration Guide
- Route Plan Report, Cisco CallManager Administration Guide
- Time-of-Day Routing, Cisco CallManager System Guide
- Softkey Template Configuration, Cisco CallManager Administration Guide
- Cisco IP Phone Administration Guide for Cisco CallManager
- Cisco IP Phone user documentation and release notes (all models)

Related Topics