Call Transfer

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Call Transfer Overview

The transfer feature allows you to redirect a connected call from your phone to another number. After call transfer, your call is disconnected and the transferred call is established as a new call connection.

Following are the different types of call transfers:

- **Consult Transfer and Blind Transfer**—In Consult Transfer, a transferring phone user can redirect the caller to a different target address, after consulting with the target phone user that answers the call. That is, the transferring phone user will stay on the call until the target phone user answers the call. In Blind Transfer, the transferring phone user connects the caller to a destination line before the target of the transfer answers the call.

  Most phones use hard keys or softkeys for Transfer. Both Consult Transfer and Blind Transfer do not require separate configuration. The difference between the two types of transfer depends on when the transferring party presses the **Transfer** button a second time. For a consult transfer, the transferring party presses the **Transfer** button after the target answers, while for a Blind Transfer, the transferring party presses the **Transfer** button before the target answers.

  For SCCP-initiated blind transfers, Cisco Unified Communications Manager provides call progress indications in the form of ring-back to the transferred user.

- **Transfer On-Hook**—In this type of call transfer, the user presses the **Transfer** softkey, dials the number to which the call will be transferred, and then presses the **Transfer** softkey again, or simply goes on-hook to complete the transfer operation. You must set the **Transfer On-Hook** service parameter to **True**. This service parameter determines whether a call transfer is completed as a result of the user going on-hook after initiating a transfer operation.

  Both Consult Transfer and Blind Transfer use the Transfer On-Hook option.

- **Direct Transfer**—This type of transfer allows a user to join two established calls (the two calls can either be on hold or in the connected state) into one call and then drop the initiator from the transfer. Direct Transfer does not initiate a consultation call and does not put the active call on hold. The user uses the **DirTrfr** softkey to join any two established calls and remove the initiator.

Call Transfer Configuration Task Flow

Procedure

	Command or Action	Purpose
Step 1	Configure Consult and Blind Transfer, on page 2	Transfer allows you to redirect a single call to a new number with or without consulting the transfer recipient. Perform this step to configure Trnsfer as a softkey and/or button.
Step 2	Configure Transfer On-Hook, on page 7	(Optional) Transfer On-Hook is an option to complete call transfers. Press Trnsfer, dial the number to which the call should be transferred to, and go on-hook to complete the transfer. Perform this step to configure the service parameter.
Step 3	Configure Direct Transfer, on page 7	(Optional) Direct Transfer allows you to transfer two calls to each other (without you remaining on the line). Perform this step to configure DirTrfr as a softkey and/or button.

Configure Consult and Blind Transfer

Complete one of the task flows depending on whether your phone supports softkey or buttons.

Procedure

	Command or Action	Purpose
Step 1	Configure a Softkey Template for Transfer, on page 2	
Step 2	Configure Transfer Button, on page 6	

Configure a Softkey Template for Transfer

Trnsfer softkey is used for consult and blind transfer of a call. The trnsfer sofkey has the following call states:

- connected
- on hold

Use this procedure to make the Trnsfer softkey available:

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Softkey Template**.

Step 2 Perform the following steps to create a new softkey template; otherwise, proceed to the next step.

a) Click **Add New**.
b) Select a default template and click **Copy**.
c) Enter a new name for the template in the **Softkey Template Name** field.
d) Click **Save**.

Step 3 Perform the following steps to add softkeys to an existing template.

a) Click **Find** and enter the search criteria.
b) Select the required existing template.

Step 4 Check the **Default Softkey Template** check box to designate this softkey template as the default softkey template.

Note
If you designate a softkey template as the default softkey template, you cannot delete it unless you first remove the default designation.

Step 5 Choose **Configure Softkey Layout** from the **Related Links** drop-down list in the upper right corner and click **Go**.

Step 6 From the **Select a Call State to Configure** drop-down list, choose the call state for which you want the softkey to display.

Step 7 From the **Unselected Softkeys** list, choose the softkey to add and click the right arrow to move the softkey to the **Selected Softkeys** list. Use the up and down arrows to change the position of the new softkey.

Step 8 Repeat the previous step to display the softkey in additional call states.

Step 9 Click **Save**.

Step 10 Perform one of the following tasks:

- Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.
- If you created a new softkey template, associate the template with the devices and then restart them. For more information, see *Add a Softkey Template to a Common Device Configuration* and *Associate a Softkey Template with a Phone* sections.

What to do next

Perform one the following procedures:

- Associate Transfer Softkey Template with a Common Device Configuration, on page 3
- Associate Transfer Softkey Template with a Phone, on page 5

Associate Transfer Softkey Template with a Common Device Configuration

Optional. There are two ways to associate a softkey template with a phone:

- Add the softkey template to the **Phone Configuration**.
- Add the softkey template to the **Common Device Configuration**.

The procedures in this section describe how to associate the softkey template with a **Common Device Configuration**. Follow these procedures if your system uses a **Common Device Configuration** to apply configuration options to phones. This is the most commonly used method for making a softkey template available to phones.

To use the alternative method, see Associate Transfer Softkey Template with a Phone, on page 5.

Before you begin

Configure a Softkey Template for Transfer, on page 2

Procedure

	Command or Action	Purpose
Step 1	Add Transfer Softkey Template to the Common Device Configuration, on page 4	Perform this step to add Trnsfer softkey template to the Common Device Configuration.
Step 2	Associate a Common Device Configuration with a Phone, on page 5	Perform this step to link the Trnsfer softkey Common Device Configuration to a phone.

What to do next

Configure Transfer Button, on page 6

Add Transfer Softkey Template to the Common Device Configuration

Before you begin

Configure a Softkey Template for Transfer, on page 2

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Common Device Configuration**.

Step 2 Perform the following steps to create a new Common Device Configuration and associate the softkey template with it; otherwise, proceed to the next step.

a) Click **Add New**.
b) Enter a name for the Common Device Configuration in the **Name** field.
c) Click **Save**.

Step 3 Perform the following steps to add the softkey template to an existing Common Device Configuration.

a) Click **Find** and enter the search criteria.
b) Click an existing Common Device Configuration.

Step 4 In the **Softkey Template** drop-down list, choose the softkey template that contains the softkey that you want to make available.

Step 5 Click **Save**.

Step 6 Perform one of the following tasks:

- If you modified a Common Device Configuration that is already associated with devices, click **Apply Config** to restart the devices.
- If you created a new Common Device Configuration, associate the configuration with devices and then restart them.

Associate a Common Device Configuration with a Phone

Before you begin

Add Transfer Softkey Template to the Common Device Configuration, on page 4

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** and select the phone device to add the softkey template.

Step 3 From the **Common Device Configuration** drop-down list, choose the common device configuration that contains the new softkey template.

Step 4 Click **Save**.

Step 5 Click **Reset** to update the phone settings.

Associate Transfer Softkey Template with a Phone

Optional. Use this procedure as an alternative to associating the softkey template with the Common Device Configuration. This procedure also works in conjunction with the Common Device Configuration. You can use it when you need to assign a softkey template that overrides the assignment in the Common Device Configuration or any other default softkey assignment.

Before you begin

Configure a Softkey Template for Transfer, on page 2

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** to select the phone to add the softkey template.

Step 3 From the **Softkey Template** drop-down list, choose the template that contains the new softkey.

Step 4 Click **Save**.

Step 5 Press **Reset** to update the phone settings.

Configure Transfer Button

The procedures in this section describe how to configure the Transfer button.

Procedure

	Command or Action	Purpose
Step 1	Configure a Phone Button Template for Transfer, on page 6	Perform this step to assign Transfer button features to line or speed dial keys.
Step 2	Associate Transfer Button Template with a Phone, on page 6	Perform this step to configure the Transfer button for a phone.

Configure a Phone Button Template for Transfer

Optional. Follow this procedure when you want to assign features to line or speed dial keys.

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Phone Button Template**.

Step 2 Click **Find** to display list of supported phone templates.

Step 3 Perform the following steps if you want to create a new phone button template; otherwise, proceed to the next step.

a) Select a default template for the model of phone and click **Copy**.
b) In the **Phone Button Template Information** field, enter a new name for the template.
c) Click **Save**.

Step 4 Perform the following steps if you want to add phone buttons to an existing template.

a) Click **Find** and enter the search criteria.
b) Choose an existing template.

Step 5 From the **Line** drop-down list, choose feature that you want to add to the template.

Step 6 Click **Save**.

Step 7 Perform one of the following tasks:

- Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.
- If you created a new softkey template, associate the template with the devices and then restart them.

Associate Transfer Button Template with a Phone

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** to display the list of configured phones.

Step 3 Choose the phone to which you want to add the phone button template.

Step 4 In the **Phone Button Template** drop-down list, choose the phone button template that contains the new feature button.

Step 5 Click **Save**.
A dialog box is displayed with a message to press **Reset** to update the phone settings.

Configure Transfer On-Hook

Before you begin

Configure Consult and Blind Transfer, on page 2

Procedure

Step 1 From Cisco Unified CM Administration, choose **System** > **Service Parameters**.
The **Service Parameter Configuration** window is displayed.

Step 2 From the **Server** drop-down list, choose the server on which you want to configure the parameter.

Step 3 From the **Service** drop-down list, choose the **Cisco CallManager (Active)** service.

Step 4 In the **Clusterwide Parameters (Device - Phone)**, choose **True** for the **Transfer On-Hook Enabled** service parameter.

Step 5 Click **Save**.

Configure Direct Transfer

Complete one of the task flows depending on whether your phone supports softkey or buttons.

Procedure

	Command or Action	Purpose
Step 1	Configure a Softkey Template for Direct Transfer, on page 7	Perform this step to add Direct Transfer softkey to template and configure the softkey using the Common Device Configuration or phone.
Step 2	Configure Direct Transfer Button, on page 10	Perform this step to add and configure the Direct Transfer button to a phone.

Configure a Softkey Template for Direct Transfer

Direct Transfer softkey has the following call states:

- Connected

- On hold

Use this procedure to make the Direct Transfer softkey available:

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Softkey Template**.

Step 2 Perform the following steps to create a new softkey template; otherwise, proceed to the next step.

a) Click **Add New**.
b) Select a default template and click **Copy**.
c) Enter a new name for the template in the **Softkey Template Name** field.
d) Click **Save**.

Step 3 Perform the following steps to add softkeys to an existing template.

a) Click **Find** and enter the search criteria.
b) Select the required existing template.

Step 4 Check the **Default Softkey Template** check box to designate this softkey template as the default softkey template.

Note
If you designate a softkey template as the default softkey template, you cannot delete it unless you first remove the default designation.

Step 5 Choose **Configure Softkey Layout** from the **Related Links** drop-down list in the upper right corner and click **Go**.

Step 6 From the **Select a Call State to Configure** drop-down list, choose the call state for which you want the softkey to display.

Step 7 From the **Unselected Softkeys** list, choose the softkey to add and click the right arrow to move the softkey to the **Selected Softkeys** list. Use the up and down arrows to change the position of the new softkey.

Step 8 Repeat the previous step to display the softkey in additional call states.

Step 9 Click **Save**.

Step 10 Perform one of the following tasks:

- Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.
- If you created a new softkey template, associate the template with the devices and then restart them. For more information, see *Add a Softkey Template to a Common Device Configuration* and *Associate a Softkey Template with a Phone* sections.

What to do next

Perform one the following procedures:

- Associate Direct Transfer Softkey Template with a Common Device Configuration, on page 9
- Associate Direct Transfer Softkey Template with a Phone, on page 10

Associate Direct Transfer Softkey Template with a Common Device Configuration

Optional. There are two ways to associate a softkey template with a phone:

- Add the softkey template to the **Phone Configuration**.
- Add the softkey template to the **Common Device Configuration**.

The procedures in this section describe how to associate the softkey template with a **Common Device Configuration**. Follow these procedures if your system uses a **Common Device Configuration** to apply configuration options to phones. This is the most commonly used method for making a softkey template available to phones.

To use the alternative method, see Associate Direct Transfer Softkey Template with a Phone, on page 10

Before you begin

Configure a Softkey Template for Direct Transfer, on page 7

Procedure

	Command or Action	Purpose
Step 1	Add Direct Transfer Softkey Template to the Common Device Configuration, on page 9	Perform this step to add Direct Transfer softkey template to the Common Device Configuration.
Step 2	Associate a Common Device Configuration with a Phone, on page 10	Perform this step to add Direct Transfer softkey template to the Common Device Configuration.

Add Direct Transfer Softkey Template to the Common Device Configuration

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Common Device Configuration**.

Step 2 Perform the following steps to create a new Common Device Configuration and associate the softkey template with it; otherwise, proceed to the next step.

a) Click **Add New**.
b) Enter a name for the Common Device Configuration in the **Name** field.
c) Click **Save**.

Step 3 Perform the following steps to add the softkey template to an existing Common Device Configuration.

a) Click **Find** and enter the search criteria.
b) Click an existing Common Device Configuration.

Step 4 In the **Softkey Template** drop-down list, choose the softkey template that contains the softkey that you want to make available.

Step 5 Click **Save**.

Step 6 Perform one of the following tasks:

- If you modified a Common Device Configuration that is already associated with devices, click **Apply Config** to restart the devices.

- If you created a new Common Device Configuration, associate the configuration with devices and then restart them.

Associate a Common Device Configuration with a Phone

Before you begin

Add Direct Transfer Softkey Template to the Common Device Configuration, on page 9

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** and select the phone device to add the softkey template.

Step 3 From the **Common Device Configuration** drop-down list, choose the common device configuration that contains the new softkey template.

Step 4 Click **Save**.

Step 5 Click **Reset** to update the phone settings.

Associate Direct Transfer Softkey Template with a Phone

Optional. Use this procedure as an alternative to associating the softkey template with the Common Device Configuration. This procedure also works in conjunction with the Common Device Configuration. You can use it when you need to assign a softkey template that overrides the assignment in the Common Device Configuration or any other default softkey assignment.

Before you begin

Configure a Softkey Template for Direct Transfer, on page 7

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** to select the phone to add the softkey template.

Step 3 From the **Softkey Template** drop-down list, choose the template that contains the new softkey.

Step 4 Click **Save**.

Step 5 Press **Reset** to update the phone settings.

Configure Direct Transfer Button

The procedures in this section describe how to configure the Direct Transfer button.

Procedure

	Command or Action	Purpose
Step 1	Configure Phone Button Template for Direct Transfer, on page 11	Perform this step to assign Direct Transfer button features to line or speed dial keys.
Step 2	Associate Direct Transfer Button Template with a Phone, on page 11	Perform this step to configure the Direct Transfer button for a phone.

Configure Phone Button Template for Direct Transfer

Optional. Follow this procedure when you want to assign features to line or speed dial keys.

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Device Settings** > **Phone Button Template**.

Step 2 Click **Find** to display list of supported phone templates.

Step 3 Perform the following steps if you want to create a new phone button template; otherwise, proceed to the next step.

a) Select a default template for the model of phone and click **Copy**.
b) In the **Phone Button Template Information** field, enter a new name for the template.
c) Click **Save**.

Step 4 Perform the following steps if you want to add phone buttons to an existing template.

a) Click **Find** and enter the search criteria.
b) Choose an existing template.

Step 5 From the **Line** drop-down list, choose feature that you want to add to the template.

Step 6 Click **Save**.

Step 7 Perform one of the following tasks:

- Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.
- If you created a new softkey template, associate the template with the devices and then restart them.

Associate Direct Transfer Button Template with a Phone

Before you begin

Configure Phone Button Template for Direct Transfer, on page 11

Procedure

Step 1 From Cisco Unified CM Administration, choose **Device** > **Phone**.

Step 2 Click **Find** to display the list of configured phones.

Step 3 Choose the phone to which you want to add the phone button template.

Step 4 In the **Phone Button Template** drop-down list, choose the phone button template that contains the new feature button.

Step 5 Click **Save**.
A dialog box is displayed with a message to press **Reset** to update the phone settings.

Call Transfer Interactions

Feature	Interaction
Logical Partitioning	The logical partitioning policy check is performed between the geolocation identifier of the device that is acting as a transferred party and the geolocation identifier of the device that is acting as a transferred destination. Logical partitioning handling takes place in the following circumstances: • When a phone user uses Transfer softkey to transfer the call, the second press of the softkey invokes and processes the Call Transfer feature. • When other transfer mechanisms, such as Direct Transfer, On-Hook Transfer, Hook Flash Transfer, and CTI-application-initiated Transfer results in invoking the Call Transfer feature. • When the transferred and the transferred destination specifies a PSTN participant. • When Cisco Unified Communications Manager uses the geolocation identifier information that associates with the transferred and transferred destination device to perform logical partitioning policy checking. • Before splitting of the primary and secondary calls, and before joining. Logical partitioning handles a denied call as follows: • Sends External Transfer Restricted message to the VoIP phone. • Normal Transfer—For a phone that is running SCCP, the primary call remains on hold, and the consultation call remains active. For a phone that is running SIP, both primary and consultation calls remain on hold and must be resumed manually after the failure. • On-Hook, Hook-Flash and Analog-Phone-Initiated Transfer—Both the primary and secondary calls are cleared by using the cause code=63 “Service or option not available” with a reorder tone from Cisco Unified Communications Manager. • The Number of Transfer Failures perfmon counter is incremented.

Feature	Interaction
Multilevel Precedence and Preemption (MLPP)	When a switch initiates a call transfer between two segments that have the same precedence level, the segments maintain the precedence level upon transfer. When a call transfer is made between call segments that are at different precedence levels, the switch that initiates the transfer marks the connection at the segment that has the higher precedence level. Cisco Unified Communications Manager supports this requirement by upgrading the precedence level of a call leg that is involved in a Call Transfer operation. For example, party A calls party B with Priority precedence level. Party B then initiates a transfer to party C and dials the Flash precedence digits when dialing. When the transfer is complete, the precedence level of party A gets upgraded from Priority to Flash. The Call Transfer feature is enabled automatically when MLPP is enabled, and the phones support the Transfer softkey. **Note** The precedence level upgrade does not work over a trunk device such as an intercluster trunk (ICT) or a PRI trunk.

Call Transfer Restrictions

Feature	Restriction
Logical Partitioning	Logical partitioning handling does not take place when both the transferred and the transferred destination devices are VoIP phones. Logical partitioning handling does not take place when geolocation or a geolocation filter is not associated with any device.
External Call Transfer Restrictions	To restrict transfer for external call scenarios, see the “External Call Transfer Restrictions” chapter.
Hunt Pilot	If a call transfer to a hunt pilot is initiated when an announcement is in progress, the call is redirected only after the announcement is complete.