



CHAPTER 21

Immediate Divert

The Immediate Divert (iDivert) feature allows you to immediately divert a call to a voice-messaging system. When the call gets diverted, the line becomes available to make or receive new calls.

Although the immediate divert feature is not available to CTI applications, a CTI redirect operation exists that performs the same function as immediate divert. Application developers can use the CTI redirect operation to accomplish immediate divert.

Access the Immediate Divert feature by using the iDivert softkey. Configure this softkey by using the Softkey Template Configuration window of Cisco Unified Communications Manager Administration. The softkey template gets assigned to phones that are in the Cisco Unified Communications Manager system.

This chapter provides the following information about immediate divert:

- [Introducing Immediate Divert, page 21-1](#)
- [System Requirements for Immediate Divert, page 21-2](#)
- [Immediate Divert Scenarios With Use Legacy Immediate Divert Service Parameter Set to False, page 21-5](#)
- [Installing and Activating Immediate Divert, page 21-9](#)
- [Configuring Immediate Divert, page 21-9](#)
- [Setting the Service Parameters for Immediate Divert, page 21-10](#)
- [Related Topics, page 21-11](#)

Introducing Immediate Divert

Consider immediate divert, a Cisco Unified Communications Manager supplementary service, as available for general use within the system. Immediate divert does not require the user to log in to make the iDivert softkey available on the phone.

Legacy iDivert allows diversion of a call to the voice mailbox of the party that invokes the iDivert feature. Enhanced iDivert allows diversion of a call to either the voice mailbox of the party that invokes the iDivert feature or to the voice mailbox of the original called party.

You can divert inbound calls that are in the call offering, call on hold, or call active states. You can divert outbound calls in the call active or call hold states. The diverted party receives the greeting of the voice-messaging system of the party to whom the call gets diverted.

When enhanced iDivert mode is active for incoming calls, the user to whom a call is presented can invoke immediate divert to divert the call either to the voice mailbox of the user or to the voice mailbox of the original called party. After the invoking user presses the iDivert softkey, a screen on the invoking user phone identifies both the original called party and the invoking user. The user selects one of the two names, and the call gets redirected to the voice mailbox of the selected party.

**Note**

When users invoke the Immediate Divert feature to divert an incoming call, they receive the choice of the original called party only if the Use Legacy Immediate Divert clusterwide service parameter is set to False. See the [“Setting the Service Parameters for Immediate Divert”](#) section on page 21-10.

System Requirements for Immediate Divert

Immediate divert requires the following software component to operate:

- Cisco Unified Communications Manager 6.0 or later

The following phones that are running SCCP and phones that are running SIP support immediate divert by using the iDivert softkey that is configured in any Cisco Unified Communications Manager softkey template:

- Cisco Unified IP Phones (7905, 7911, 7912, 7920, 7940, 7941, 7960, 7961, 7970, 7971)

The following voice-messaging systems support immediate divert:

- Voice-messaging systems such as Unity that use the skinny protocol
- Voice-messaging systems such as Octel that use SMDI

Call-Processing Requirements for Immediate Divert

The following sections describe call-processing requirements for immediate divert:

- [Softkey Requirements, page 21-2](#)
- [Requirements for Incoming Calls, page 21-3](#)
- [Requirements for Outgoing Calls, page 21-3](#)

Softkey Requirements

Because the iDivert softkey does not automatically get configured in a softkey template, use the Softkey Template Configuration window in Cisco Unified Communications Manager Administration to configure the iDivert softkey in any available softkey template. You can configure the iDivert softkey in the following call states:

- Connected
- On hold
- Ring in

**Note**

The ring-in state in the softkey template represents the call-offering state in the phone call state.

Use the Phone Configuration window in Cisco Unified Communications Manager Administration to assign the softkey template that contains the iDivert softkey to a phone.

For information about softkey template configuration, see [Softkey Template Configuration](#) in the *Cisco Unified Communications Manager Administration Guide*. For information about assigning softkey templates to phones, see [Cisco Unified IP Phone Configuration](#) in the *Cisco Unified Communications Manager Administration Guide*.

Requirements for Incoming Calls

The following list gives called party types in the call-forwarding chain that immediate divert supports:

- Party A calls party B.
- Party B forwards to party C.
- Party C forwards to party D.

Party B represents the original called party. Party C represents the last redirecting party. Party D represents the last called party.

Immediate divert supports the following incoming call states:

- Call offering
- Call on hold
- Call active

When the called party presses the iDivert softkey and the Use Legacy Immediate Divert clusterwide service parameter is set to True, immediate divert redirects the incoming call to the voice-messaging mailbox that is associated with the called party. You can administer a voice-messaging mailbox for the called party through the voice-messaging profile that is assigned to the directory number of the called party.

When the called party presses the iDivert softkey and the Use Legacy Immediate Divert clusterwide service parameter is set to False, immediate divert may allow the called party to select the destination voice mailbox. A screen gets presented to the called party if the call had previously diverted (see the [“Interactions” section on page 21-6](#)). The called party can choose to divert the call to the voice-messaging mailbox of the original called party or to the voice-messaging mailbox that is associated with the called party, or the called party can cancel the divert that is in the iDivert menu. You may administer a voice-messaging mailbox for the original called party or for the called party through the voice-messaging profile that is assigned to the associated directory numbers.

For information about voice messaging, see [Cisco Voice-Mail Pilot Configuration](#) and [Voice-Mail Profile Configuration](#) in the *Cisco Unified Communications Manager Administration Guide*, and [Voice Mail Connectivity to Cisco Unified Communications Manager](#) in the *Cisco Unified Communications Manager System Guide*.

Requirements for Outgoing Calls

Immediate divert supports the following outgoing call states:

- Call on hold
- Call active

When the calling party presses the iDivert softkey, immediate divert redirects an outgoing call to the voice-messaging mailbox that is associated with the calling party. You may administer a voice-messaging mailbox for the calling party through the voice-messaging profile that is assigned to the directory number of the calling party.

For information about voice messaging, see [Cisco Voice-Mail Pilot Configuration](#) and [Voice-Mail Profile Configuration](#) in the *Cisco Unified Communications Manager Administration Guide*, and [Voice Mail Connectivity to Cisco Unified Communications Manager](#) in the *Cisco Unified Communications Manager System Guide*.

Immediate Divert Phone Display Messages

Immediate divert displays the following messages on the IP phone to indicate the status of an immediate divert action:

- Key is not active—The voice-messaging profile of the user who pressed iDivert does not have a voice-messaging pilot.
- Temporary failure—The voice-messaging system does not work, or a network problem exists.
- Busy—This message indicates that a voice-messaging system is busy.

Using Immediate Divert

The following scenarios provide examples of using the Immediate Divert feature. Scenario 1 through scenario 6 assume that the Use Legacy Immediate Divert clusterwide service parameter is set to True. Scenario 7 through scenario 8 assume that the Use Legacy Immediate Divert clusterwide service parameter is set to False. Scenario 9 assumes the Use Legacy Immediate Divert clusterwide service parameter is set to False and the Auto Call Pickup Enabled clusterwide service parameter is set to False.

Immediate Divert Scenarios with Use Legacy Immediate Divert Service Parameter Set to True

Scenario 1: Called Party Presses iDivert Softkey

1. Party A calls Manager A.
2. Manager A presses the iDivert softkey (call-offering state).
3. Immediate divert diverts the call to Manager A voice-messaging mailbox.
4. Party A receives the voice-messaging mailbox greeting of Manager A.

Scenario 2: Voice-Messaging Profile of an Original Called Party Does Not Have Voice-Messaging Pilot

1. Party A calls Party B.
2. The call gets forwarded to the personal line of Assistant B.
3. Assistant B presses the iDivert softkey (call-offering state).
4. Immediate divert diverts the call to Assistant B voice-messaging mailbox. Party B does not have a voice-messaging pilot number that is configured, but Assistant B does.
5. Party A receives the voice-messaging mailbox greeting of Assistant B.

Scenario 3: Manager A Forwards a Call to Manager B

1. Party A calls Manager A.
2. Manager A has line forwarded to Manager B.
3. Manager B presses the iDivert softkey (call-offering state).
4. Immediate divert diverts the call to Manager B voice-messaging mailbox.

5. Party A receives the voice-messaging mailbox greeting of Manager B.

Scenario 4: Voice-Messaging Port That Is Defined in a Voice-Messaging Profile is Busy

1. Party A calls Party B.
2. Party B presses the iDivert softkey (call offering state).
3. Immediate divert cannot divert the call to the voice-messaging mailbox because the voice-messaging port is busy.
4. Party B sees the message Busy on the IP phone.
5. The original call remains in the call-offering state.

Scenario 5: Calling Party Calls a Call Center That Uses a Hunt Pilot Number

1. Party A calls Hunt List A.
2. Hunt List A member presses the iDivert softkey (call offering state), which is greyed out.
3. Immediate divert cannot divert the call to the voice-messaging mailbox because Hunt List A does not have a voice-messaging profile.
4. Hunt List A member sees the *Key is Not Active* message on the IP phone.

Scenario 6: Calling Party B Transfers a Call to Party C on Different Cisco Unified Communications Manager Cluster

1. Party A calls Party B.
2. Party B transfers the call to Party C on a different Cisco Unified Communications Manager cluster.
3. Party C answers the incoming call.
4. Party C presses the iDivert softkey.
5. Party A receives the voice-messaging mailbox greeting of Party C.

Immediate Divert Scenarios With Use Legacy Immediate Divert Service Parameter Set to False

Scenario 7: Calling Party A Calls Party B, and Party B Forwards the Call to Party C

1. Party A calls Party B.
2. Party B phone forwards the call to Party C.
3. Party C gets presented with the incoming call and presses the iDivert softkey.
4. Party C presses the iDivert softkey.
5. Party C receives a screen that offers the choice of diverting to Party B voice-messaging mailbox or Party C voice-messaging mailbox.
6. Party C chooses the voice-messaging mailbox of Party B.
7. Party A receives the voice-messaging mailbox greeting of Party B.

Scenario 8: Calling Party Calls a Call Center That Uses a Hunt Pilot Number

1. Party A calls Hunt List A.
2. Hunt List A member presses the iDivert softkey (call offering state).
3. Immediate divert diverts the call to the voice-messaging mailbox of the hunt list A member that invokes the iDivert feature.
4. Party A receives the voice-messaging mailbox greeting of Hunt List A member.

Scenario 9: Auto Call Pickup Enabled Clusterwide Service Parameter is Set to False, and a User is in a Call Pickup Group

1. Party B, Party C, and Party D exist in the same call pickup group.
2. Party A calls Party B.
3. Party B IP phone rings but Party B does not answer the call.
4. Party C uses call pickup to answer the call.
5. If Party C presses the iDivert softkey during alerting state, connected state, or on hold state, the IP phone display gets presented to Party C. Party C can choose between two options: iDivert the call to the original called party voice-messaging mailbox (Party B) or iDivert the call to the last called party voice-messaging mailbox (Party C).

**Note**

If the Use Legacy Immediate Divert clusterwide service parameter is set to False, and the Auto Call Pickup Enabled clusterwide service parameter is set to True, and a user of a call pickup group uses call pickup to answer a call, the IP phone display will not present any choices to the user when the iDivert softkey is pressed.

Interactions and Restrictions

The following sections describe the interactions and restrictions for immediate divert:

- [Interactions, page 21-6](#)
- [Restrictions, page 21-7](#)

Interactions

The following sections describe how immediate divert interacts with Cisco Unified Communications Manager applications and call processing:

- [Multilevel Precedence and Preemption \(MLPP\), page 21-6](#)
- [Setting the Service Parameters for Call Park, page 4-9](#)
- [Call Forward, page 21-7](#)
- [Call Detail Records \(CDR\), page 21-7](#)
- [Conference, page 21-7](#)
- [Hunt List, page 21-7](#)

Multilevel Precedence and Preemption (MLPP)

The following interactions occur between immediate divert and MLPP:

- Immediate divert diverts calls to voice-messaging mailboxes regardless of the type of call (for example, a precedence call).
- When Alternate Party Diversion (call precedence) is activated, Call Forward No Answer (CFNA) gets deactivated.

Call Forward

When the Forward No Answer setting on the Directory Number Configuration window is not configured, call forward uses the clusterwide CFNA timer service parameter, Forward No Answer Timer. If a user presses the iDivert softkey at the same time as the call is being forwarded, the call gets diverted to an assigned call forward directory number (because the timer was too short), not the voice-messaging mailbox. To solve this situation, set the CFNA timer service parameter to enough time (for example, 60 seconds). If the iDivert screen has been presented to the iDivert invoker and the CFNA timer expires, the call forwards onward.

Call Detail Records (CDR)

Immediate divert uses the immediate divert code number in the Onbehalf of fields (for example, joinOnbehalfOf and lastRedirectRediectOnBehalfOf) in CDR.

Conference

When a conference participant presses the iDivert softkey, the remaining conference participants receive the voice-messaging mailbox greeting of the immediate divert initiator. Conference types include Ad Hoc, Meet-Me, Barge, cBarge, and Join.

Hunt List

Immediate divert works as follows for DNs that are members of a line group:

- Ensure the iDivert softkey is enabled
- For calls that reach the phone directly through a hunt list pilot (as part of the hunting algorithms), the iDivert softkey will appear grayed out if the Use Legacy Immediate Divert clusterwide service parameter is set to True; otherwise, it does not appear grayed out.
- For calls that do not reach the phone directly through a hunt list pilot (as part of the hunting algorithms), the iDivert softkey does not appear grayed when the Use Legacy Immediate Divert clusterwide service parameter is set to True or False. (This includes scenarios where a call was made to a hunt list pilot, the hunt list was exhausted, and the call followed the forwarding disposition to the DN that also happens to be a member of a hunt group. This would represent a case where a call reaches a member of a hunt group indirectly through a hunt list pilot.)

Restrictions

The following restrictions apply to immediate divert:

- Immediate divert supports QSIG devices (QSIG-enabled H-323 devices, MGCP PRI QSIG T1 gateways, and MGCP PRI QSIG E1 gateways), depending on the setting of the Use Legacy Immediate Divert and Allow QSIG During iDivert clusterwide service parameters. See the [“Setting the Service Parameters for Immediate Divert”](#) section on page 21-10 for details. When iDivert is allowed over QSIG trunks, follow these guidelines: when you use QSIG integration with your voice-messaging system, a voice-mail profile that includes either a voice mail pilot or a voice mail mask or both should leave the “Make this the default Voice Mail Profile for the System” check box unchecked. Ensure the default Voice Mail Profile setting is always set to No Voice Mail.
- When Call Forward All (CFA) and Call Forward Busy (CFB) are activated, the system does not support immediate divert (CFA and CFB have precedence over immediate divert).

- When it reaches a voice-messaging system over a local/SCCP connection, iDivert can detect a busy condition on the voice-messaging ports. (The call cannot divert to a busy voice-messaging system, but the original call gets maintained. Busy will display on the phone on which iDivert was invoked to indicate that the call was not diverted.) When a voice-messaging system is reached over a QSIG or SIP trunk, iDivert can be detected, but the call does not get maintained. When the Allow QSIG During iDivert clusterwide service parameter is set to True, or the Use Legacy Immediate Divert clusterwide service parameter is set to False, immediate divert supports access to voice-messaging systems that can be reached over QSIG/SIP trunks. When the Allow QSIG During iDivert clusterwide service parameter is set to False, and the Use Legacy Immediate Divert clusterwide service parameter is set to True, immediate divert does not support access to voice-messaging systems over QSIG or SIP trunks. Immediate divert cannot divert a call to a busy voice-messaging port; however, voice-messaging ports can exist as members of a route/hunt list, thus reducing the busy port scenario.
- If the Use Legacy Immediate Divert clusterwide service parameter is set to True, members of a hunt list can invoke iDivert if the call is direct. They cannot invoke iDivert if they are reached as a member of a line group. The message, Key is Not Active, displays on the IP phone.
- When Cisco Unified Communications Manager goes down, users cannot leave voice messages unless a media path was established between a redirected party and the voice-messaging system before the Cisco Unified Communications Manager went down.
- System does not support using Malicious Caller ID and Immediate Divert features together.
- CTI applications do not have immediate divert available (applications use Transfer to Voicemail).
- Use the Call Park Display Timer service parameter to control the timer for the immediate divert text display on the IP phones. When the service parameter gets changed, the text display timer for immediate divert also gets changed.
- See the [“Multilevel Precedence and Preemption \(MLPP\)” section on page 21-6](#) for restrictions about using MLPP.
- A race condition in connection with the Forward No Answer Timeout exists when the iDivert softkey gets pressed. For example, if a manager presses the iDivert softkey immediately after the Forward No Answer timeout, call forward forwards the call to a preconfigured directory number. However, if the manager presses the iDivert softkey before the Forward No Answer timeout, immediate divert diverts the call to the voice-messaging mailbox of the manager.
- The calling and called parties can divert the call to their voice-messaging mailboxes if both simultaneously press the iDivert softkey. The voice-messaging mailbox of the calling party would contain a portion of the outgoing greeting of the called party. Similarly, the voice-messaging mailbox of the called party would contain a portion of the outgoing greeting of the calling party.
- When one participant in a conference presses the iDivert softkey, all remaining participants receive an outgoing greeting of the participant who pressed iDivert. Conference types include Meet-Me, Ad Hoc, cBarge, and Join.
- If the last action on a call was Auto Pickup, Call Transfer, Call Park, Call Park Reversion, Conference, Meet-Me Conference, or any application that performs a split or join operation, enhanced iDivert does not present a screen to a called party to choose the voice-messaging mailbox. Instead, enhanced iDivert immediately diverts the call to the voice-messaging mailbox that is associated with the called party.
- When iDivert is allowed over QSIG trunks, follow these guidelines: when you use QSIG integration with your voice-messaging system, a voice mail profile that includes either a voice mail pilot or a voice mail mask or both should leave the “Make this the default Voice Mail Profile for the System” check box unchecked. Ensure the default Voice Mail Profile setting always gets set to No Voice Mail.

Installing and Activating Immediate Divert

Immediate Divert, a system feature, comes standard with Cisco Unified Communications Manager software. Immediate divert does not require special installation.

Configuring Immediate Divert

This section contains the following information:

- [Immediate Divert Configuration Checklist](#), page 21-9
- [Setting the Service Parameters for Immediate Divert](#), page 21-10

Immediate Divert Configuration Checklist

[Table 21-1](#) provides a checklist to configure immediate divert.

Table 21-1 Immediate Divert Configuration Checklist

Configuration Steps		Related procedures and topics
Step 1	Change the Call Park Display Timer clusterwide service parameter if the default is not appropriate.	Setting the Service Parameters for Immediate Divert , page 21-10
Step 2	Change the Use Legacy Immediate Divert clusterwide service parameter if the default is not appropriate.	Setting the Service Parameters for Immediate Divert , page 21-10
Step 3	Change the Allow QSIG During iDivert clusterwide service parameter if the default is not appropriate.	Setting the Service Parameters for Immediate Divert , page 21-10
Step 4	Change the iDivert User Response Timer service parameter if the default is not appropriate.	Setting the Service Parameters for Immediate Divert , page 21-10
Step 5	Using the Directory Number Configuration window, associate a voice-mail profile to each user who will have access to immediate divert. Note This step assumes that voice-mail profiles and pilots are configured. See Configuring a Voice-Mail Profile and Configuring the Voice-Mail Pilot Number .	Configuring a Directory Number , <i>Cisco Unified Communications Manager Administration Guide</i>
Step 6	Assign the iDivert softkey to the Standard User or Standard Feature softkey template. Assign the softkey in the On Hook, Connected, On Hold, and Ring In states.	Softkey Template Configuration , <i>Cisco Unified Communications Manager Administration Guide</i>

Table 21-1 Immediate Divert Configuration Checklist (continued)

Configuration Steps		Related procedures and topics
Step 7	<p>Using the Phone Configuration window, assign the Standard User or Standard Feature softkey template, to which you added the iDivert softkey, to each device that has immediate divert access.</p> <p>Tip To make the iDivert softkey available to many users, configure a softkey template with the iDivert softkey; then, assign that softkey template to a device pool and, finally, assign that device pool to all users who need iDivert.</p>	Configuring Cisco Unified IP Phones , <i>Cisco Unified Communications Manager Administration Guide</i>
Step 8	Notify users that the Immediate Divert feature is available.	Refer to the phone documentation for instructions on how users access immediate divert on their Cisco Unified IP Phone.

Setting the Service Parameters for Immediate Divert

The behavior of the Immediate Divert feature depends on the setting for various service parameters. Descriptions of the service parameters that affect the Immediate Divert feature follow.

Call Park Display Timer Clusterwide Service Parameter

Immediate divert uses the Cisco Unified Communications Manager clusterwide service parameter Call Park Display Timer. The default for this service parameter specifies 10 seconds. Use the Call Park Display Timer service parameter to control the timer for the immediate divert text display on the IP phones. When the service parameter gets changed, the text display timer for immediate divert also changes. Set this timer for each server in a cluster that has the Cisco CallManager service and immediate divert configured.

For information about text displays, see the [“Immediate Divert Phone Display Messages”](#) section on page 21-4.

Use Legacy Immediate Divert Clusterwide Service Parameter

Immediate divert allows diversion of an incoming call to either the voice mailbox of the original called party or to the voice mailbox of the user that invokes the iDivert feature only if the Use Legacy Immediate Divert clusterwide service parameter is set to False. If the Use Legacy Immediate Divert service parameter is set to True, the user that invokes the iDivert feature can divert an incoming call only to his own voice mailbox.

Setting the Use Legacy Immediate Divert clusterwide service parameter to False allows access to voice-messaging systems that are reached over QSIG.

Allow QSIG During iDivert Clusterwide Service Parameter

Immediate divert diverts calls to voice-messaging systems that can be reached over QSIG, SIP, and QSIG-enabled H.323 devices if the Allow QSIG During iDivert clusterwide service parameter is set to True.

Immediate Divert User Response Timer Service Parameter

The value of the Immediate Divert User Response Timer service parameter determines the time that the invoker of the iDivert softkey is given to choose the party to whom to divert a call. If the invoker does not choose a party, the call remains connected.

Related Topics

- [Cisco Unified IP Phone Configuration](#), *Cisco Unified Communications Manager Administration Guide*
- [Softkey Template Configuration](#), *Cisco Unified Communications Manager Administration Guide*
- [Cisco Voice-Mail Pilot Configuration](#), *Cisco Unified Communications Manager Administration Guide*
- [Voice-Mail Profile Configuration](#), *Cisco Unified Communications Manager Administration Guide*
- [Voice Mail Connectivity to Cisco Unified Communications Manager](#), *Cisco Unified Communications Manager System Guide*

Additional Cisco Documentation

- Cisco Unified IP Phone administration documentation for Cisco Unified Communications Manager
- Cisco Unified IP Phone user documentation

