



## Do Not Disturb

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This chapter provides information about the Do Not Disturb (DND) feature which provides the following options:

- **Call Reject** - This option specifies that no incoming call information gets presented to the user. Depending on how you configure the DND Incoming Call Alert parameter, the phone may play a beep or display a flash notification of the call.
- **Ringer Off** - This option turns off the ringer, but incoming call information gets presented to the device, so that the user can accept the call.

Users can configure DND directly from their Cisco Unified IP Phone or from the Cisco Unified Communications Self Care Portal.

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## Configure Do Not Disturb

The Do Not Disturb (DND) feature provides the following options:

- **Call Reject** - This option specifies that no incoming call information gets presented to the user. Depending on how you configure the DND Incoming Call Alert parameter, the phone may play a beep or display a flash notification of the call.
- **Ringer Off** - This option turns off the ringer, but incoming call information gets presented to the device, so that the user can accept the call.

When DND is enabled, all new incoming calls with normal priority will honor the DND settings for the device. High-priority calls, such as Cisco Emergency Responder (CER) calls or calls with Multi-Level Precedence & Preemption (MLPP), will ring on the device. Also, when you enable DND, the Auto Answer feature gets disabled.

## Procedure

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- Step 1** Configure DND service parameters.
  - Step 2** Configure DND softkeys.
  - Step 3** Configure DND feature button.
  - Step 4** Configure device-based DND parameters.
  - Step 5** Configure phone profile settings.
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## Related Topics

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# Do Not Disturb Feature

When DND is enabled, all new incoming calls with normal priority will honor the DND settings for the device. High-priority calls, such as Cisco Emergency Responder (CER) calls or calls with Multi-Level Precedence & Preemption (MLPP), will ring on the device. Also, when you enable DND, the Auto Answer feature gets disabled.

The user can enable and disable DND by any of the following methods:

- Softkey
- Feature button
- Cisco Unified Communications Self Care Portal

You can also enable and disable DND on a per-phone basis in Cisco Unified Communications Manager Administration.

When you enable DND, the Cisco Unified IP Phone displays the message Do Not Disturb is active. when DND is active. Some Cisco Unified IP Phones display DND status icons. For more information about Cisco Unified IP Phones and the DND feature, see the user guides for that IP phone.

## Call Alert Settings

DND incoming call alert settings determine how the incoming call alert gets presented to the user when DND Ringer Off or DND Call Reject is enabled. The following list gives the available options:

- None - This option specifies that the DND Incoming Call Alert setting from the Common Phone Profile window will get used for this device.
- Disable - This option disables both beep and flash notification of a call but for the DND Ringer Off option, incoming call information still gets displayed. For the DND Call Reject option, no call alerts displayed and no information gets sent to the device.

- Beep Only - For an incoming call, this option causes the phone to play a beep tone only.
- Flash Only - For an incoming call, this option causes the phone to display a flash alert.

You can configure DND Incoming Call Alert on a per-device basis and also configure it on the Common Phone Profile window for group settings. If you do not set up the configuration at the device level, the Common Phone Profile settings get used.

## Do Not Disturb Architecture

This section provides an overview of DND architecture for both SIP and SCCP devices.

### DND Status Notification for SIP Devices

Cisco Unified Communications Manager supports Do Not Disturb that a SIP device initiates or that a Cisco Unified Communications Manager device initiates. A DND status change gets signaled from a SIP device to Cisco Unified Communications Manager by using the SIP PUBLISH method (RFC3909). A DND status change gets signaled from a Cisco Unified Communications Manager to a SIP device by using a dndupdate Remote-cc REFER request. Cisco Unified Communications Manager can also publish the Do Not Disturb status for a device, along with the busy and idle status for the device.

### DND Status Notification for SCCP Devices

Cisco Skinny Client Control Protocol (SCCP) supports Do Not Disturb requests that an SCCP device initiates or that a Cisco Unified Communications Manager device initiates. A DND status change gets signaled from an SCCP device to Cisco Unified Communications Manager by using SCCP messaging.

## System Requirements for Do Not Disturb

This section provides software and hardware requirement for Do Not Disturb.

### Software Requirements

To operate, the Do Not Disturb feature requires the following software components:

- Cisco Unified Communications Manager Release 6.0(1) or later

### Hardware Requirements

The following Cisco Unified IP Phones support the Do Not Disturb feature:

- Cisco Unified IP Phone 6900 series (except 6901 and 6911)
- Cisco Unified IP Phone 7900 series
- Cisco Unified IP Phone 8900 series
- Cisco Unified IP Phone 9900 series



**Note** Cisco Unified IP Phones 7940 and 7960 that are running SIP use their own backwards-compatible implementation of Do Not Disturb, which you configure on the SIP Profile window.

For more information about Cisco Unified IP Phones and the DND feature, see the user documentation for your phone model.

## Determine Device Support for Do Not Disturb

Use the Cisco Unified Reporting application to generate a complete list of devices that support Do Not Disturb. To do so, follow these steps:

For additional information about the Cisco Unified Reporting application, see the *Cisco Unified Reporting Administration Guide*.

### Procedure

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- Step 1** Start Cisco Unified Reporting by using any of the methods that follow.
- The system uses the Cisco Tomcat service to authenticate users before allowing access to the web application. You can access the application
- by choosing Cisco Unified Reporting in the Navigation menu in Cisco Unified Communications Manager Administration and clicking **Go**.
  - by choosing File > Cisco Unified Reporting at the Cisco Unified Real Time Monitoring Tool (RTMT) menu.
  - by entering `https://<server name or IP address>:8443/cucreports/` and then entering your authorized username and password.
- Step 2** Click **System Reports** in the navigation bar.
- Step 3** In the list of reports that displays in the left column, click the Unified CM Phone Feature List option.
- Step 4** Click the Generate a new report link to generate a new report, or click the Unified CM Phone Feature List link if a report already exists.
- Step 5** To generate a report of all devices that support DND, choose these settings from the respective drop-down list boxes and click the **Submit** button:
- Product: All
- Feature: Do Not Disturb
- The List Features pane displays a list of all devices that support the DND. You can click on the Up and Down arrows next to the column headers (Product or Protocol) to sort the list.
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# Do Not Disturb Interactions and Restrictions

This section provides information about Do Not Disturb interactions and restrictions.

## Interactions

This section describes how the Do Not Disturb feature interacts with Cisco Unified Communications Manager applications and call processing features.

### Call Forward All

On Cisco Unified IP Phones, the message that indicates that the Do Not Disturb (DND) feature is active takes priority over the message that indicates that the user has new voicemail messages, which allows the user to know when DND is active. However, the message that indicates that the Call Forward All feature is active has a higher priority than DND.

### Park Reversion

For locally parked calls, Park Reversion overrides DND (both options). If Phone A has DND turned on and parked a call, the park reversion to Phone A will occur normally and will ring Phone A.

For remotely parked calls, DND overrides Park Reversion:

- If Phone A activates DND Ringer Off and shares a line with Phone A-prime, when Phone A-prime parks the call, park reversion on Phone A will not ring and will honor the DND settings.
- If Phone A activates DND Call Reject, the park reversion call will not be presented to Phone A.

### Pickup

For a locally placed Pickup request, Pickup overrides DND (both options). If Phone A has DND turned on and has initiated any type of Pickup, the Pickup call would be presented normally, and it will ring Phone A.

For a remotely placed Pickup request, DND overrides Pickup.

- If Phone A (with DND Ringer Off activated) shares a line with Phone A-prime, when Phone A-prime initiates Pickup, the Pickup call to Phone A will not ring and will honor DND settings.
- If Phone A is in DND Call Reject mode, the Pickup call will not be presented to Phone A.

### Hold Reversion and Intercom

Hold reversion and intercom override DND (both options), and the call gets presented normally.

### MLPP and CER

MLPP (phones that are running SCCP) and CER calls override DND (both options). MLPP and CER calls get presented normally, and the phone will ring.

## Call Back

For the originating side, callback overrides DND. When the activating device is on DND mode (both options), the callback notification (both audio and visual) will still be presented to the user.

For the terminating side, DND overrides callback:

- When the terminating side is on DND Ringer Off, the Callback Available screen will be sent after the terminating side goes off hook and on hook.
- When the terminating side is on DND Call Reject and is available (goes off hook and on hook), a new screen will be sent to the activating device as “<DirectoryNumber> has become available but is on DND-R” if the activating device is in same cluster. Callback available notification will be sent only after the terminating side disables DND Call Reject.

## Pickup Notification

For the DND Ringer Off option, only visual notification gets presented to the device.

For the DND Call Reject option, no notification gets presented to the device.

## Hunt List

If a device in a Hunt List has DND Ringer Off activated, the call will get still presented to the user when a call gets made to that Hunt List. However, the DND Incoming Call Alert settings would still apply.

If a device in a Hunt List has DND Call Reject activated, any calls to that Hunt List will go to the next member and will not get sent to this device.

## Extension Mobility

For extension mobility, the device profile settings include DND incoming call alert and DND status. When a user logs in and enables DND, the DND incoming call alert and DND status settings get saved, and these settings get used when the user logs in again.



### Note

When a user who is logged in to extension mobility modifies the DND incoming call alert or DND status settings, this action does not affect the actual device settings.

## Restrictions

Some restrictions apply to DND usage, depending on the phone or device type in use.

- The following phone models and devices that are running SCCP support only the DND Ringer Off option:
  - Cisco Unified IP Phone 7940
  - Cisco Unified IP Phone 7960
  - Cisco IP Communicator



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**Note** Cisco Unified IP Phones 7940 and 7960 that run SIP use their own implementation of Do Not Disturb, which is backward compatible.

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- The following phone models and devices support only the DND Call Reject option:
  - Mobile devices (dual mode)
  - Remote Destination Profile
  - Cisco Unified Mobile Communicator

## Install and Activate Do Not Disturb

Do Not Disturb, a system feature, comes standard with Cisco Unified Communications Manager software. It does not require special installation.

## Configure Do Not Disturb

This section describes the procedures for configuring the Do Not Disturb feature.



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**Tip** Before you configure the Do Not Disturb feature, review the configuration summary task for DND.

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### Related Topics

[Configure Do Not Disturb](#), on page 1

## Set the Do Not Disturb Service Parameters

Cisco Unified Communications Manager provides one systemwide service parameter for Do Not Disturb: BLF Status Depicts DND. This parameter determines whether DND status is considered in the Busy Lamp Field (BLF) status calculation, and you can set the parameter to True or False.

- When you specify True for BLF Status Depicts DND and DND is activated on the device, the BLF status indicator for the device or line appearance reflects the DND state.
- When you specify False for BLF Status Depicts DND and DND is activated on the device, the BLF status indicator for the device or line appearance reflects the actual device state.

When BLF Status Depicts DND is enabled or disabled for the cluster, the cluster setting applies to all phones on the server that support DND.



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**Note** To set this service parameter, navigate to System > Service Parameters and choose the Cisco CallManager service for the server that you want to configure. Specify the desired state for BLF Status Depicts DND in the Clusterwide Parameters (System - Presence) pane.

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## Configure DND Softkeys

Default softkey templates do not make a DND softkey available. To add a DND softkey, navigate to **Device > Device Settings > Softkey Template**, add Do Not Disturb to a softkey template in the Softkey Template Configuration window, and associate the template to the device.

A DND softkey is available in the following states:

- Connected
- Connected Conference
- Connected Transfer
- Off Hook
- Off Hook with Feature
- On Hold
- Remote In Use
- On Hook
- Ring In
- Ring Out
- Digits After First

## Configure a DND Button

To configure a DND button, navigate to **Device > Device Settings > Phone Button Template** and add Do Not Disturb in the Phone Button Template Configuration window.

## Configure Device Parameters for DND

To configure DND on a particular Cisco Unified IP Phone, navigate to **Device > Phone** and choose the phone that you want to configure. In the Do Not Disturb pane on the Phone Configuration window, configure the parameters that are shown in the following table.

**Table 1: DND Device Parameters**

Field	Description
Do Not Disturb	Check this check box to enable Do Not Disturb on the phone.



Field	Description
DND Option	<p>When you enable DND on the phone, this parameter allows you to specify how the DND features handle incoming calls:</p> <ul style="list-style-type: none"> <li>• <b>Call Reject</b> - This option specifies that no incoming call information gets presented to the user. Depending on how you configure the DND Incoming Call Alert parameter, the phone may play a beep or display a flash notification of the call.</li> <li>• <b>Ringer Off</b> - This option turns off the ringer, but incoming call information gets presented to the device, so that the user can accept the call.</li> <li>• <b>Use Common Phone Profile Setting</b> - This option specifies that the DND Option setting from the Common Phone Profile window will get used for this device.</li> </ul> <p><b>Note</b> For 7940/7960 phones that are running SCCP, you can only choose the Ringer Off option. For mobile devices and dual-mode phones, you can only choose the Call Reject option. When you activate DND Call Reject on a mobile device or dual-mode phone, no call information gets presented to the device.</p>
DND Incoming Call Alert	<p>When you enable the DND Ringer Off or Call Reject option, this parameter specifies how a call displays on a phone.</p> <p>From the drop-down list, choose one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>None</b> - This option specifies that the DND Incoming Call Alert setting from the Common Phone Profile window will get used for this device.</li> <li>• <b>Disable</b> - This option disables both beep and flash notification of a call but for the DND Ringer Off option, incoming call information still gets displayed. For the DND Call Reject option, no call alerts display and no information gets sent to the device.</li> <li>• <b>Beep Only</b> - For an incoming call, this option causes the phone to play a beep tone only.</li> <li>• <b>Flash Only</b> - For an incoming call, this option causes the phone to display a flash alert.</li> </ul>

## Add DND to Common Phone Profiles

To add DND to a common phone profile, navigate to **Device > Device Settings > Common Phone Profile** and choose the phone profile that you want to modify. In the Common Phone Profile Configuration window, configure the DND parameters that are shown in the following table.

**Table 2: Common Phone Profile DND Parameters**

Field	Description
DND Option	<p>When you enable DND on the phone, this parameter allows you to specify how the DND features handle incoming calls:</p> <ul style="list-style-type: none"> <li>• <b>Call Reject</b> - This option specifies that no incoming call information gets presented to the user. Depending on how you configure the DND Incoming Call Alert parameter, the phone may play a beep or display a flash notification of the call.</li> <li>• <b>Ringer Off</b> - This option turns off the ringer, but incoming call information gets presented to the device, so that the user can accept the call.</li> </ul> <p><b>Note</b> For mobile devices and dual-mode phones, you can only choose the Call Reject option. When you activate DND Call Reject on a mobile device or dual-mode phone, no call information gets presented to the device.</p>
DND Incoming Call Alert	<p>When you enable the DND Ringer Off or Call Reject option, this parameter specifies how a call displays on a phone.</p> <p>From the drop-down list, choose one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>None</b> - This option specifies that the DND Incoming Call Alert setting from the Common Phone Profile window will get used for this device.</li> <li>• <b>Disable</b> - This option disables both beep and flash notification of a call but for the DND Ringer Off option, incoming call information still gets displayed. For the DND Call Reject option, no call alerts display and no information gets sent to the device.</li> <li>• <b>Beep Only</b> - For an incoming call, this option causes the phone to play a beep tone only.</li> <li>• <b>Flash Only</b> - For an incoming call, this option causes the phone to display a flash alert.</li> </ul>

# How to Use Do Not Disturb

This section provides instructions for using Do Not Disturb, as well as usage examples for different Do Not Disturb call scenarios.

## Use the Do Not Disturb Feature

You can activate Do Not Disturb using any of the following methods:

- Softkey
- Feature button
- Cisco Unified Communications Self Care Portal

After you activate DND, the phone status line displays Do not disturb is active, the DND line button icon becomes an empty circle, and the light turns amber.

When you activate DND, you can still receive incoming call notifications on the phone as specified by the incoming call alert settings in Cisco Unified Communications Manager administration, but the phone will not ring, except for high-priority calls (such as Cisco Emergency Responder and MLPP calls).

Also, if you enable DND while the phone is ringing, the phone stops ringing.

## Do Not Disturb Usage Examples

This section provides several examples of how calls get presented to phones with the Do Not Disturb feature enabled for both the DND Ringer Off option and the DND Call Reject option.

### DND Ringer Off Option

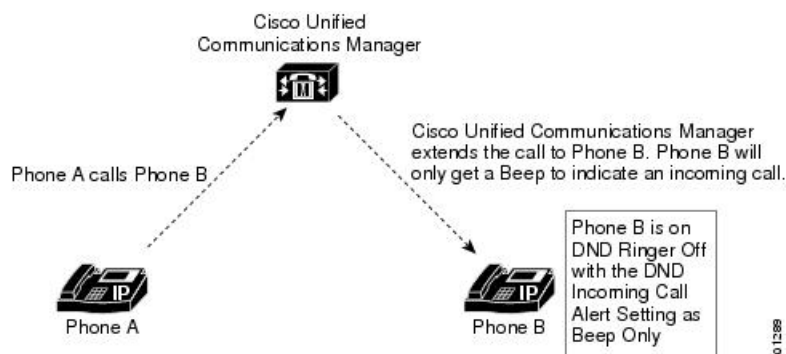
The following examples use the DND Ringer Off option.

#### Normal Priority Call with DND Ringer Off Enabled on a Nonshared Line

The following figure shows the steps that are associated with DND when you place a normal-priority call to a phone with DND Ringer Off enabled on a nonshared line:

1. Phone B activates DND. Phone B displays Do Not Disturb is active.
2. Phone A dials phone B.
3. Phone B beeps, and phone A receives ringback tone.

**Figure 1: Normal Priority Call with DND Ringer Off Enabled on a Nonshared Line**

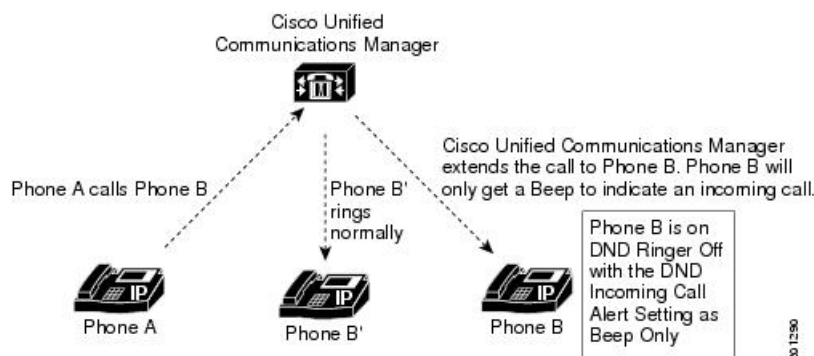


### Normal Priority Call with DND Ringer Off Enabled on a Shared Line

The following figure shows the steps that are associated with DND when you place a normal-priority call to a phone with DND Ringer Off enabled on a shared line:

1. Phone B activates DND. Phone B displays Do Not Disturb is active.
2. Phone A dials a shared line on phone B.
3. Phone B beeps, and phone B', which shares the line, rings normally.
4. Phone A receives ringback tone.

**Figure 2: Normal Priority Call with DND Ringer Off Enabled on a Shared Line**



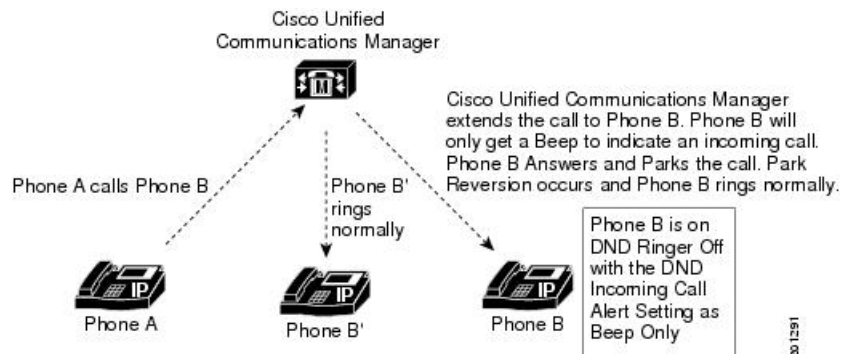
### High Priority Call with DND Ringer Off Enabled on a Shared Line

The following figure shows the steps that are associated with DND when you place a high-priority call to a phone with DND Ringer Off enabled on a shared line:

1. Phone B activates DND. Phone B displays Do Not Disturb is active.
2. Phone A dials a shared line on phone B.
3. Phone B beeps, and phone B', which shares the line, rings normally.
4. Phone A receives ringback tone.
5. Phone B answers and parks the call.

6. Park reversion occurs, and phone B rings normally.

**Figure 3: High Priority Call with DND Ringer Off Enabled on a Shared Line**



### Normal Call with DND and Call Forward No Answer Enabled on a Nonshared Line

The following steps show the call flow for a call that you make to a phone with both DND and Call Forward No Answer active:

1. Phone B configures Call Forward No Answer to forward calls to Phone C.
2. Phone B activates DND.
3. Phone A calls Phone B.
4. Phone B beeps and does not answer the call.
5. The call gets forwarded to phone C, which rings normally.

## DND Call Reject Option

The following examples use the DND Call Reject option.

### Normal Priority Call with DND Call Reject Enabled on a Nonshared Line

The following steps show the call flow for a call with Call Reject enabled on a nonshared line:

1. Phone B activates DND Call Reject with a DND Incoming Call Alert setting of Beep Only.
2. Phone A call Phone B.
3. Cisco Unified Communications Manager rejects the call with the reason User Busy.
4. Phone B gets a beep tone only.

### Normal Priority Call with DND Call Reject Enabled on a Shared Line

The following steps show the call flow for a call with Call Reject enabled on a shared line:

1. Phone B activates DND Call Reject with a DND Incoming Call Alert setting of Beep Only.
2. Phone A call Phone B.
3. Cisco Unified Communications Manager rejects the call with the reason User Busy.

4. Phone B gets a beep tone only.
5. Phone B-prime, which is not on DND, rings normally.

### High-Priority Call with DND Call Reject Enabled on a Shared Line

The following steps show the call flow for a high-priority call with DND Call Reject enabled on a shared line:

1. Phone A activates DND Call Reject with a DND Incoming Call Alert setting of Beep Only.
2. Phone A calls Phone B.
3. Cisco Unified Communications Manager extends the call to Phone B.
4. Phone B answers the call.
5. Phone A parks the call.
6. Phone A-prime, which is not on DND, rings normally.
7. Park Reversion occurs, and Phone A rings normally.

## Troubleshooting Do Not Disturb

The section provides troubleshooting information for Cisco Unified IP Phones (SCCP and SIP).

### DND Troubleshooting

If DND does not operate as expected, determine whether the settings maintained by the SCCP station code are the same as what the user thinks they are, as shown in the following examples.

Verify DND status by toggling DND

If you toggle DND status using a softkey or a feature button, you can see the new status in the LmFeatureInd message that is sent to line control. (The new status implies the old status was the opposite.) You can then toggle back.

The LmFeatureInd SDL trace gives the following three fields:

- feature: A value of 4 indicates DND.
- featureState: A value of 0 indicates on; a value of 1 indicates off.
- dndOption: A value of 0 indicates unknown; a value of 1 indicates ringer-off, and a value of 2 indicates call-reject.

Verify all DND settings by resetting the phone

If you reset the phone, all of the DND settings will be printed in the detailed SDI traces, for example:

```
StationD: (xxxxxxx) DND settings from TSP: status=a, option=b, ringSetting=d
```

where

- a equals 0 (DND off) or 1 (DND on)

- b equals 1 (DND ringer-off option, 1 indicates ringer-off)
- d equals 1 (disable ringer), 2 (flash only), or 5 (beep only)

## Troubleshooting Phones Running SIP

Use the following information to troubleshoot phones that are running SIP:

- debugs: sip-dnd, sip-messages, dnd-settings
- show: config, dnd-settings
- Sniffer traces

## Troubleshooting Phones Running SCCP

Use the following information to troubleshoot phones that are running SCCP:

- debug: jvm all info
- Sniffer traces

## Troubleshooting DND Errors

The following table shows symptoms and actions for DND troubleshooting.

**Table 3: DND Troubleshooting Symptoms and Actions**

Symptom	Actions
DND feature key does not display	<ul style="list-style-type: none"><li>• Check the Cisco Unified Communications Manager version and ensure that it is 6.0 or above.</li><li>• Verify the button template for this phone has the DND feature key.</li><li>• Capture a sniffer trace and verify that the phone gets the correct button template.</li><li>• Verify that the phone is running firmware 8.3(1) and above.</li></ul>

Symptom	Actions
DND softkey does not display	<ul style="list-style-type: none"><li>• Check the Cisco Unified Communications Manager version and ensure that it is 6.0 or above.</li><li>• Verify the softkey template for this phone has DND.</li><li>• Capture a sniffer trace and verify that the phone gets the correct softkey template.</li><li>• Verify that the phone is running firmware 8.3(1) and above.</li></ul>
BLF speed dial does not show DND status	<ul style="list-style-type: none"><li>• Check the Cisco Unified Communications Manager version and ensure that it is 6.0 or above.</li><li>• Verify that the BLF DND is set to enabled in Enterprise parameters.</li><li>• Capture a sniffer trace and verify that the phone gets the correct NotificationMessage.</li><li>• Verify that the phone is running firmware 8.3(1) and above.</li></ul>