



# Using DND & Forward on Yealink IP Phones with BroadSoft UC One



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# Document Revision History

Version	Change Log
1.0	Edited and published document.

# Requirements for BroadWorks and IP phone

## **BroadWorks (UC ONE) software version:**

R17.0/R17.sp1/R17.sp2/R17.sp3/R17.sp4

R18.0/R18.sp1

R19.0/R19.sp1

## **Firmware version on IP Phones:**

T19(P): 31.71.xx.xx

T20(P): 9.71.xx.xx

T21(P): 34.71.xx.xx

T22(P): 7.71.xx.xx

T26(P): 6.71.xx.xx

T28(P): 2.71.xx.xx

T32(G): 32.70.xx.xx

T38(G): 38.70.xx.xx

T42(G): 29.71.xx.xx

T46(G): 28.71.xx.xx

W52P: 25.30.xx.xx

VP530: 23.70.xx.xx

# You will learn

- ① Application Scenarios
- ② Configuration on BroadWorks&BTBC
- ③ Configuration on Yealink phone
- ④ Feature show
- ⑤ Notes

# ① Application scenarios

**Do Not Disturb (DND)** allows all incoming calls to be rejected automatically. The BroadWorks server provides an option to play a ring splash reminder on the IP phone when the incoming call is rejected.

**Forward Diversion:** The call forward feature allows users to redirect an incoming call to a third party. This configuration is enabled as default. The call forward feature is based on a phone or a per-account basis depending on the call forward mode. IP phones support the following call forward behaviors: Always Forward, Busy Forward and No Answer Forward.

## Related Features :

**Always Forward :** Incoming calls are immediately forwarded.

**Busy Forward:** Incoming calls are immediately forwarded if the IP phone is busy.

**No Answer Forward:** Incoming calls are forwarded if not answered after a period of time.

## **Play Ring Reminder when a call is blocked:**

Allow you to make your primary phone emit a short ring burst to inform you when the call is being sent to voice messaging by using the Ring Reminder.

## **Specify the return code and the reason:**

Refuse feature defines the return code and reason of the SIP response message for the refused call.

# ② Configuration on BroadWorks

## 1. Assign Do Not Disturb to user

Configuration Path: Group->User->Profile->Assign Services



Group > Users : 2413333583

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Options:

► Profile

[Incoming Calls](#)

[Outgoing Calls](#)

[Call Control](#)

[Calling Plans](#)

[Client Applications](#)

[Meet-Me Conferencing](#)

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### Assign Services

Assign Services allows you to assign or unassign services and service packs for a user. If a service or service pack is unassigned the service data that has been filled out will be lost.

OK Apply Cancel

Available Service Packs	User Service Packs
<div style="border: 1px solid gray; height: 100px;"></div>	<div style="border: 1px solid gray; height: 100px;"></div>
Add >	
Remove <	
Add All >>	
Remove All	

Available Services	User Services
<div style="border: 1px solid gray; padding: 5px;">BroadWorks Agent BroadWorks Receptionist - Enterprise</div>	<div style="border: 1px solid gray; padding: 5px;">Directed Call Pickup Directed Call Pickup with Barge-in Diversion Inhibitor <b>Do Not Disturb</b> Enhanced Call Logs External Calling Line ID Delivery External Custom Ringback Fax Messaging Flash Call Hold Hoteling Guest Hoteling Host</div>
Add >	
Remove <	
Add All >>	
Remove All	

OK Apply Cancel

# ② Configuration on BroadWorks

## 2. Enable Do Not Disturb

Configuration Path: Group->User->Incoming Calls->Do Not Disturb



Group > Users : 2413333583

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- Options:
- [Profile](#)
  - ▶ [Incoming Calls](#)
  - [Outgoing Calls](#)
  - [Call Control](#)
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### Do Not Disturb

Allows you to send your calls directly to your voice messaging box without ringing your phone. In addition, you can make your primary phone emit a short ring burst to inform you when the call is being sent to voice messaging by using the Ring Reminder. This is important when you have forgotten the service is turned on and you are at your phone waiting to receive calls.

OK Apply Cancel

Do Not Disturb:  On  Off

Play Ring Reminder when a call is blocked

OK Apply Cancel

Play Ring Reminder when a Call is blocked:  
Enable/disable it according to your needs.

# ② Configuration on BroadWorks

## 3. Check the code of Do Not Disturb

Configuration Path: Group->User->Utilities->Feature Access Codes



Group > Users : 2413333583

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- Options:
- [Profile](#)
  - [Incoming Calls](#)
  - [Outgoing Calls](#)
  - [Call Control](#)
  - [Calling Plans](#)
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### Utilities

#### Basic

##### [Authentication](#)

Perform authentication upon the registration of an IP phone to prevent unauthorized access to the system.

##### [Basic Call Logs](#)

Display the most recently received, missed, or placed calls.

##### [Enhanced Call Logs](#)

Display the most recently received, missed, or placed calls.

##### [Feature Access Codes](#)

Display the feature access codes (star codes) for your services.

##### [Group Directory](#)

Display the group directory list.

##### [Intercept User - Off](#)

Allows the system to intercept calls terminated to or originated from a line that has been decommissioned.

##### [Registrations](#)

Displays all the static and dynamic registrations for a user.

##### [Prepaid - Off](#)

Enable Prepaid calling for a user



# ② Configuration on BroadWorks

## 3. Check the code of Do Not Disturb

Configuration Path: Group->User->Utilities->Feature Access Codes



[Help](#) - [Home](#)

Group > Users : 2413333583

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### Options:

- [Profile](#)
- [Incoming Calls](#)
- [Outgoing Calls](#)
- [Call Control](#)
- [Calling Plans](#)
- [Client Applications](#)
- [Meet-Me Conferencing](#)
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### Feature Access Codes

Feature Access Codes list the star codes for services that you have. To activate a service, hit the \* key and the number followed by the # key. Some require additional information such as a phone number, but you are prompted for that information. You cannot change your feature access codes.

Code	Description
*34	Advice Of Charge Activation
*77	Anonymous Call Rejection Activation
*87	Anonymous Call Rejection Deactivation
*52*	Anonymous Call Rejection Interrogation
#8	Automatic Callback Deactivation
#9	Automatic Callback Menu Access
*14	BroadWorks Anywhere E.164 Dialing
*15	Call Bridge
*72	Call Forwarding Always Activation
*73	Call Forwarding Always Deactivation
*21*	Call Forwarding Always Interrogation
*21	Call Forwarding Always To Voice Mail Activation
#21	Call Forwarding Always To Voice Mail Deactivation
*80	Diversion Inhibitor
*78	Do Not Disturb Activation
*79	Do Not Disturb Deactivation
#83	Escalate Call to Supervisor
*22	Flash Call Hold
#72	Forced Forwarding Activation
#73	Forced Forwarding Deactivation
#58	Group Call Park
#82	Initiate Silent Monitoring
*66	Last Number Redial

# ③ Configure DND on Yealink IP Phones

## 1. Ways to configure DND on IP Phones

Configure DND via Phone LCD portal/ Web portal/ Auto Provisioning

Access Portal	Availability	How to access?
Phone LCD portal	<b>Not Available</b>	<b>NA</b>
Web portal	Available	Log in by IP address: *Username/password are <b>admin/admin</b> by default
Auto Provisioning	Available	Use DMS or 3 <sup>rd</sup> party provision tool

# ③ Configure DND on Yealink IP Phones

## 2. Configure DND on IP Phones via Auto Provisioning

Configuration Path: Web UI->Settings->Auto Provision

```
#!version:1.0.0.1
```

```
##0 Specify whether to display the BSFT directory on the web user interface; 0-Disabled, 1-Enable (default). Require reboot. Notice: Feature Key Synchronization will be displayed in Web UI after you enable this feature or you can't find it. This is very important.
```

```
bw.directory_enable = 1
```

```
##1 Enable or disable the feature key synchronization; 0-Disabled (default), 1-Enabled.
```

```
bw.feature_key_sync = 1
```

```
##2 Configure the DND key mode;
```

```
#0-Phone mode (default): The DND feature take effect on the whole IP phone.
```

```
#1-Custom mode: You can configure the DND feature for each account.
```

```
features.dnd_mode = 0
```

# ③ Configure DND on Yealink IP Phones

## 3. Enable Feature Key Synchronization via Web portal

Configuration Path: Web UI->Features->General Info->Feature Key Synchronization

The screenshot displays the Yealink T20 web portal interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory', and 'Security'. The 'Features' tab is selected. On the left sidebar, 'General Information' is highlighted. The main content area shows a list of features with their current status and a help icon. The 'Feature Key Synchronization' row is highlighted with a red border. A 'NOTE' section on the right provides details for 'Call Waiting', 'Key As Send', and 'Hotline Number'.

Feature Name	Current Status	Help Icon
Call Waiting	Disabled	?
Call Waiting On Code		?
Call Waiting Off Code		?
Auto Redial	Disabled	?
Auto Redial Interval (1~300s)	10	?
Auto Redial Times (1~300)	10	?
Key As Send	#	?
Reserve # in User Name	Enabled	?
Hotline Number		?
Hotline Delay(0~10s)	4	?
Busy Tone Delay (Seconds)	0	?
Return Code When Refuse	486 (Busy Here)	?
Return Code When DND	480 (Temporarily Not Av)	?
Call Completion	Disabled	?
<b>Feature Key Synchronization</b>	<b>Disabled</b>	<b>?</b>
Time-Out For Dial-Now Rule	1	?
RFC 2543 Hold	Disabled	?

**NOTE**

**Call Waiting**  
This call feature allows your phone to accept other incoming calls during the conversation.

**Key As Send**  
Select \* or # as the send key.

**Hotline Number**  
When you pick up the phone, it will dial out the hotline number automatically.

# ③ Configure DND on Yealink IP Phones

## 3. Configure Return Code for DND on IP Phones via Web portal

Configuration Path: Web UI->Features->General Info->Return Code When DND

The screenshot shows the Yealink T20 web portal interface. The 'Features' tab is selected, and the 'General Information' section is active. The 'Return Code When DND' setting is highlighted with a red box, showing a value of '480 (Temporarily Not Av)'. Other settings include 'Call Waiting' (Disabled), 'Auto Redial' (Disabled), and 'Key As Send' (#). A 'NOTE' section on the right provides information about 'Call Waiting', 'Key As Send', and 'Hotline Number'.

Setting	Value
Call Waiting	Disabled
Call Waiting On Code	
Call Waiting Off Code	
Auto Redial	Disabled
Auto Redial Interval (1~300s)	10
Auto Redial Times (1~300)	10
Key As Send	#
Reserve # in User Name	Enabled
Hotline Number	
Hotline Delay(0~10s)	4
Busy Tone Delay (Seconds)	0
Return Code When Refuse	486 (Busy Here)
Return Code When DND	480 (Temporarily Not Av)
Call Completion	Disabled
Feature Key Synchronization	Disabled
Time-Out For Dial-Now Rule	1
RFC 2543 Hold	Disabled

**NOTE**

**Call Waiting**  
This call feature allows your phone to accept other incoming calls during the conversation.

**Key As Send**  
Select \* or # as the send key.

**Hotline Number**  
When you pick up the phone, it will dial out the hotline number automatically.

# ③ Configure DND on Yealink IP Phones

## 3. Configure DND on IP Phones via Web portal:

Configuration Path: Web UI->Features->Forward & DND->DND

The screenshot displays the Yealink T20 web portal interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory', and 'Security'. The 'Features' tab is selected, and the 'Forward&DND' sub-tab is active. The left sidebar lists 'General Information', 'Audio', 'ACD', 'SMS', and 'Action URL'. The main content area is divided into 'Forward' and 'DND' sections. The 'Forward' section includes options for 'Mode' (Phone/Custom), 'Account' (2413333595), 'Always Forward' (On/Off), 'No Answer Forward' (On/Off), and 'After Ring Times' (12). The 'DND' section, highlighted with a red box, includes 'DND Emergency' (Disabled), 'DND Authorized Numbers', 'Mode' (Phone/Custom), 'Account' (2413333595), 'DND Status' (On/Off), 'DND On Code', and 'DND Off Code'. A 'NOTE' box on the right explains the 'Forward' feature.

**Forward** ?

Mode  Phone  Custom ?

Account 2413333595 ?

Always Forward  On  Off ?

Target ?

No Answer Forward  On  Off ?

After Ring Times 12 ?

Target ?

On Code ?

Off Code ?

**DND** ?

DND Emergency Disabled ?

DND Authorized Numbers ?

Mode  Phone  Custom ?

Account 2413333595 ?

DND Status  On  Off ?

DND On Code ?

DND Off Code ?

**NOTE**

**Forward**  
This feature allows you to forward an incoming call to another phone number.

**Target**

# ③ Configure Forward Yealink IP Phones

## 4. Three Ways to configure Forward on the Phone

Configure it via Phone LCD portal/ Web portal/ Auto Provisioning

Access Portal	Availability	How to access?
Phone LCD portal	<b>Not Available</b>	<b>NA</b>
Web portal	Available	Log in by IP address: *Username/password are <b>admin/admin</b> by default
Auto Provisioning	Available	Use DMS or 3 <sup>rd</sup> party provision tool

# ③ Configure Forward Yealink IP Phones

## 5. Configure Forward Diversion on IP Phones via Auto Provisioning

Configuration Path: Web UI->Settings->Auto Provision

```
#!version:1.0.0.1
```

```
##0 Specify whether to display the BSFT directory on the web user interface; 0-Disabled, 1-Enable (default). Require reboot. Notice: Feature Key Synchronization will be displayed in Web UI after you enable this feature or you can't find it. This is very important.
```

```
bw.directory_enable = 1
```

```
##1 Enable or disable the feature key synchronization; 0-Disabled (default), 1-Enabled.
```

```
bw.feature_key_sync = 1
```



# ③ Configure Forward on Yealink IP Phones

## 3. Enable Feature Key Synchronization via Web portal

Configuration Path: Web UI->Features->General Info->Feature Key Synchronization

The screenshot shows the Yealink T20 web portal interface. The top navigation bar includes 'Status', 'Account', 'Network', 'DSSKey', 'Features', 'Settings', 'Directory', and 'Security'. The 'Features' tab is selected. On the left, a sidebar lists various feature categories: Forward&DND, General Information, Audio, Intercom, Transfer, Call Pickup, Remote Control, Phone Lock, ACD, SMS, and Action URL. The main content area is titled 'General Information' and contains a list of settings. The 'Feature Key Synchronization' setting is highlighted with a red box and is currently set to 'Disabled'. To the right, a 'NOTE' section provides instructions for 'Call Waiting', 'Key As Send', and 'Hotline Number'.

Setting	Value	Help
Call Waiting	Disabled	?
Call Waiting On Code		?
Call Waiting Off Code		?
Auto Redial	Disabled	?
Auto Redial Interval (1~300s)	10	?
Auto Redial Times (1~300)	10	?
Key As Send	#	?
Reserve # in User Name	Enabled	?
Hotline Number		?
Hotline Delay(0~10s)	4	?
Busy Tone Delay (Seconds)	0	?
Return Code When Refuse	486 (Busy Here)	?
Return Code When DND	480 (Temporarily Not Av)	?
Call Completion	Disabled	?
<b>Feature Key Synchronization</b>	<b>Disabled</b>	<b>?</b>
Time-Out For Dial-Now Rule	1	?
RFC 2543 Hold	Disabled	?

**NOTE**

**Call Waiting**  
This call feature allows your phone to accept other incoming calls during the conversation.

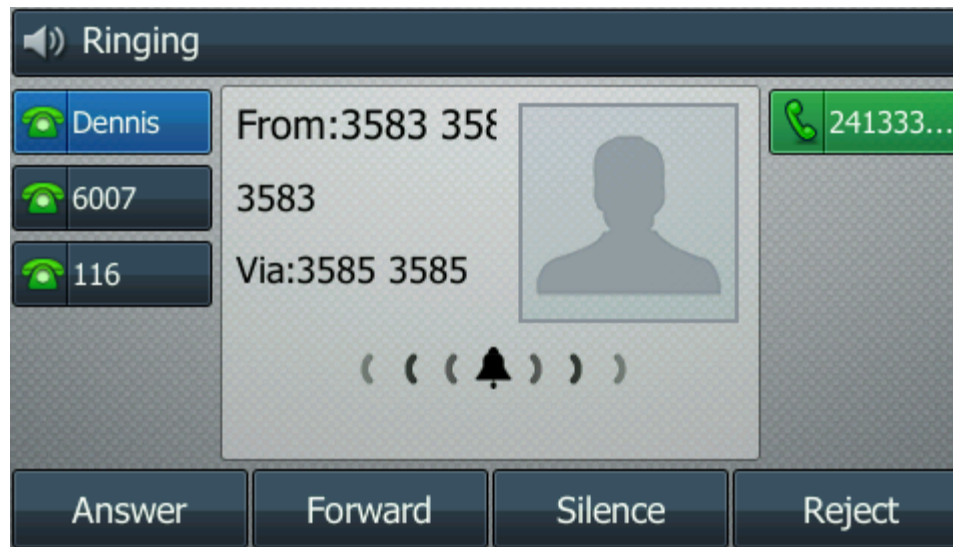
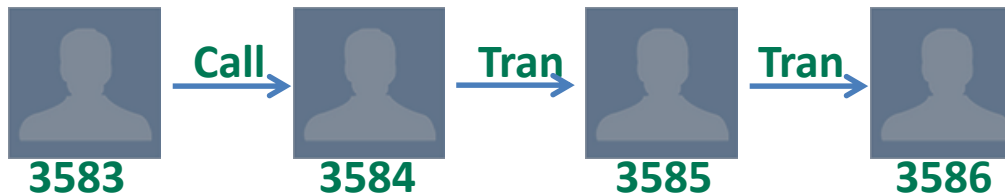
**Key As Send**  
Select \* or # as the send key.

**Hotline Number**  
When you pick up the phone, it will dial out the hotline number automatically.

## ④ Feature Show

### Application scenarios:

1. 3583 call 3584, 3584 transfer to 3585 then 3585 transfer to 3586 finally 3586 ring. The screen on 3586 display like below: **Form 3583, transfer via 3585.**



## About Feature Access Codes and Feature Key Synchronization:

### Feature Access Codes:

Configure two feature access codes prefixes that are used for authorized services for the group if "Use FAC codes" radio buttons are set to "Group FAC codes". Otherwise Service Provider FAC codes will be used. The prefix for that service may be set if Speed Dial 100 is used. Be careful to avoid conflicts between Feature Codes, Speed Dial Codes, Extensions, and Emergency Numbers.

### Feature Key Synchronization:

Feature Key Synchronization provides the capability to synchronize the following BroadWorks feature status with the IP phone.

You can use the Feature Key Synchronization on the private line (as opposed to the shared line) of the IP phone. The BroadWorks server will notify the IP phone of the status change if a user changes the status of one of these features via the BroadWorks web portal or feature access code (FAC). Conversely the IP phone will notify the BroadWorks server of the status change if the user changes the feature status on the IP phone.

You can also use the Feature Key Synchronization on the shared line of the IP phone. The BroadWorks server will notify all the IP phones sharing the line of the status change.

**Enjoy the DND & Forward features😊**