

Yealink W60B Dect Base configuration for connection to Rainbow Hub (v2)

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2. Introduction

Yealink W60B is a SIP Cordless Phone System designed for small and medium-sized businesses. It allows paring with up to a total of 8 Yealink W52H/W53H/W56H DECT handsets (Up to 8 VoIP accounts).

The Yealink W60B DECT Base works seamlessly with the entire Yealink DECT handset range and repeater.



This document gives an overview of Yealink W60B and Dect handset W53H configuration when used in Rainbow Hub environment.

Rainbow configuration like user creation, license allocation, device creation and association are not covered.

3. Versions

1. Initial version
2. Update certificate configuration

4. SIP Device Information

On Rainbow administration side, the SIP generic device must be declared and associated to a Rainbow Hub user.

The admin must get SIP credentials and domain/proxy information from the device details and provision these parameters for each connected handsets:

Under web admin *Communication – Devices – SIP options*:

- **SIP registrar domain name** (e.g. *xx.eu1.sip.openrainbow.net*) and port (e.g. *5061*)
- **SIP proxy domain name** (e.g. *6787.qa.eu1.sip.openrainbow.net*) and port (e.g. *5061*)

- **SIP User name** (e.g. 116) – usually equals to extension number
- **SIP Password**
- **CA certificate chain** (download a *.pem file)

Note: you may need to split the downloaded certificate *.pem file into three separate pem certificates, using any text editor (e.g. Notepad). Not all devices can understand single certificate file that contains multiple certificates.

Rainbow SIP certificates are signed by an official authority (The USERTRUST Network) that might be already trusted by some equipment. In that case there is no need to upload any certificates. Rainbow certificates are already accepted by the equipment firmware.

Only the third certificate (the Root CA) of the chain is mandatory and must be uploaded if not already embedded in the equipment; It expires on 19th January 2038 (fingerprint HA-256: E7 93 C9 B0 2F D8 AA 13 E2 1C 31 22 8A CC B0 81 19 64 3B 74 9C 89 89 64 B1 74 6D 46 C3 D4 CB D2).

The W60B version 77.85.0.25 contains this root CA.

Device information ×

Information **SIP options** Member

SIP account settings

Outbound proxy	lb01.qa.eu1.sip.openrainbow.net
Domain	6787.qa.eu1.sip.openrainbow.net
User name	116
Password	1 [redacted] g 
Port	5061
Transport protocol	TLS
CA certificates chain	<input type="button" value="Download"/> 

Device information



Information

SIP options

Member

This device is currently associated to the following member and phone number:

Phone information

Server name youcef_Cloud_PBX

Member gen2 sip2

Extension number 116

Remove this association

Remove

5. Yealink base and handset versions

What was tested:

W60B Firmware: 77.85.0.85

Hardware: 77.0.0.48.0.0.0

The screenshot shows the Yealink W60B web interface. The top navigation bar includes 'Status', 'Account', 'Network', 'Features', 'Settings', and 'Directory'. A warning message 'Default password is in use. Please change it.' is visible in the top right corner. The left sidebar has 'Status' and 'Handset&VoIP' options. The main content area displays the following information:

Version	
Firmware Version	77.83.0.85
Hardware Version	77.0.0.48.0.0.0

Device Certificate	
Device Certificate	Factory Installed

Network	
Internet Port	IPv4 & IPv6

IPv4	
WAN Port Type	DHCP
WAN IP Address	10.64.7.195
Subnet Mask	255.255.255.0
Gateway	10.64.7.1
Primary DNS	10.67.0.254
Secondary DNS	

IPv6	
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Handset W53H version : 88.83.0.90

Yealink | W60B ⚠ Default password is in use. Plea

Status | Account | Network | Features | Settings | Directory

Status

Handset&VoIP

Registered Handsets	Handset Name	Handset Version	Delete Handset
1	Handset 1	88.83.0.90	Delete
2	Handset 2	88.83.0.90	Delete

Register&Paging

Register New Handsets Start Register

Paging Status Start Paging

Account	Line Name	Status	Forward	Do Not Disturb
Account1	gener...	Registered	Disabled	Disabled
Account2	gener...	Registered	Disabled	Disabled
Account3		Disabled	Disabled	Disabled
Account4		Disabled	Disabled	Disabled
Account5		Disabled	Disabled	Disabled
Account6		Disabled	Disabled	Disabled
Account7		Disabled	Disabled	Disabled
Account8		Disabled	Disabled	Disabled

6. Yealink handset configuration

Each handset (max 8) must be configured with a specific SIP account (Account 1, 2, ...)

The screenshot shows the Yealink W60B configuration interface. The top navigation bar includes 'Status', 'Account', 'Network', 'Features', 'Settings', and 'Directory'. A warning message states 'Default password is in use. Please change it.' The 'Account' tab is selected, showing 'Account1' in a dropdown menu. The left sidebar lists configuration sections: Register, Basic, Codec, Advanced, Number Assignment, and Handset Name. The main content area is divided into sections for SIP Server 1 and SIP Server 2. In the SIP Server 1 section, the 'User Name' and 'Password' fields are highlighted with a red box. In the SIP Server 2 section, the 'Enable Outbound Proxy Server' dropdown and the 'Outbound Proxy Server 1' field are highlighted with a blue box. At the bottom, there are 'Confirm' and 'Cancel' buttons.

Account		Account1
Register Status		Registered
Line Active		Enabled
Label		generic1
Display Name		sip1
Register Name		115
User Name		115
Password		*****
SIP Server 1		
Server Host	6787.qa.eu1.sip.openrainbow	Port 5061
Transport	TLS	
Server Expires	3600	
Server Retry Counts	3	
SIP Server 2		
Server Host		Port 5061
Transport	UDP	
Server Expires	3600	
Server Retry Counts	3	
Enable Outbound Proxy Server	Enabled	
Outbound Proxy Server 1	lb01.qa.eu1.sip.openrainbow	Port 5061
Outbound Proxy Server 2		Port 5060
Proxy Fallback Interval	3600	
NAT	Disabled	

Confirm Cancel

Status

Account

Network

Features

Settings

Directory

Register

Basic

Codec

Advanced

Number Assignment

Handset Name

Account

Account1

Local Anonymous

Off

Local Anonymous Rejection

Off

Send Anonymous Code

Off Code

On Code

Off Code

Send Anonymous Rejection Code

Off Code

On Code

Off Code

Confirm

Cancel

Status

Account

Network

Features

Settings

Directory

Register

Basic

Codec

Advanced

Number Assignment

Handset Name

Account

Account1

Audio Codecs

Disable Codecs

G729
G722
iLBC
G726-16
G726-24
G726-32
G726-40

→

←

Enable Codecs

PCMA
PCMU
opus

↑

↓

Note: When codec is Opus, base will only support 6 concurrent calls.

Confirm

Cancel

Register

Basic

Codec

Advanced

Number
Assignment

Handset Name

Account

Account1

Keep Alive Type Default

Keep Alive Interval(Seconds) 30

RPort Disabled

Subscription Period(Seconds) 1800

DTMF Type RFC2833

DTMF Info Type DTMF-Relay

DTMF Payload Type(96~127) 101

Retransmission Disabled

Subscribe Register Disabled

Subscribe For MWI Enabled

MWI Subscription Period(Seconds) 3600

Subscribe MWI To Voice Mail Enabled

Voice Mail voicebox

Voice Mail Display Enabled

Caller ID Source PAI-FROM

Session Timer Disabled

Session Expires(90~7200s) 1800

Session Refresher UAC

Send user=phone Disabled

Send user=phone	Disabled	▼
RTP Encryption(SRTP)	Compulsory	▼
PTime(ms)	20	▼
Shared Line	Disabled	▼
SIP Send MAC	Disabled	▼
SIP Send Line	Disabled	▼
SIP Registration Retry Timer(0~1800s)	30	
Conference Type	Local Conference	▼
Conference URI		
SIP Server Type	Default	▼
Unregister When Reboot	Enabled	▼
VQ RTCP-XR Collector Name		
VQ RTCP-XR Collector Address		
VQ RTCP-XR Collector Port	5060	
Number of simultaneous outgoing calls	8	▼

Confirm

Cancel

7. Yealink generic parameters

Default parameters were applied.

The screenshot shows the Yealink W60B web interface. The top navigation bar includes 'Status', 'Account', 'Network', 'Features', 'Settings', and 'Directory'. A warning message in the top right corner states: 'Default password is in use. Please change it immediately.' The left sidebar contains the following menu items: 'Forward&DND', 'General Information', 'Audio', 'Transfer', 'Call Pickup', 'Phone Lock', and 'Power LED'. The main content area is titled 'Forward' and contains the following settings:

Section	Parameter	Value
Forward	Account	115
	Always Forward	<input type="radio"/> On <input checked="" type="radio"/> Off
	Target	
	On Code	
	Off Code	
	Busy Forward	<input type="radio"/> On <input checked="" type="radio"/> Off
	Target	
	On Code	
	Off Code	
No Answer Forward	After Ring Time(0~120s)	12
	Target	
	On Code	
	Off Code	
DND	Account	115
	DND Status	<input type="radio"/> On <input checked="" type="radio"/> Off
	On Code	
	Off Code	

Forward&DND

General Information

Audio

Transfer

Call Pickup

Phone Lock

Power LED

General Information

Call Waiting	Enabled
Call Waiting On Code	
Call Waiting Off Code	
Key As Send	#
Reserve # in User Name	Enabled
Busy Tone Delay (Seconds)	0
Return Code When Refuse	486 (Busy Here)
Return Code When DND	480 (Temporarily Unavailk
Feature Key Synchronization	Disabled
Time Out for Dial Now Rule	1
RFC 2543 Hold	Disabled
Use Outbound Proxy In Dialog	Disabled
180 Ring Workaround	Enabled
Save Call Log	Enabled
Suppress DTMF Display	Disabled
Suppress DTMF Display Delay	Disabled
Multicast Codec	G722
Fwd International	Enabled
Diversion/History-Info	Enabled

Diversion/History-Info	Enabled
Auto Logout Time(1~1000min)	5
Call Number Filter	, -
Accept SIP Trust Server Only	Disabled
Allow IP Call	Enabled
Voice Mail Tone	Enabled
DHCP Hostname	W60B
Reboot In Talking	Disabled
Display Method on Dialing	User Name
End Call On Hook	Always
Number Of Active Handsets	4

Security > Trusted certificates

You can rely on embedded CA to trust Rainbow server certificates.

The screenshot shows the Yealink W60B web interface. At the top, there is a green header with the Yealink logo and a warning icon indicating "Default password is in use. Please change it." Below the header is a navigation menu with tabs for Status, Account, Network, Features, Settings, and Directory. The main content area is divided into a left sidebar and a main panel. The sidebar has links for Password, Base PIN, Trusted Certificates, and Server Certificates. The main panel displays a table of certificates with columns for Index, Issued to, Issued by, Expiration, and Delete. Below the table, there are three configuration options: "Only Accept Trusted Certificates" (set to Enabled), "Common Name Validation" (set to Enabled), and "CA Certificates" (set to Default Certificates). Each option has a help icon. Below these options is the "Import Trusted Certificates" section, which includes a "Load Trusted Certificates File" field (currently "No selected file"), a "Browse..." button, and "Upload" and "Cancel" buttons. At the bottom, there are "Confirm" and "Cancel" buttons.

Index	Issued to	Issued by	Expiration	Delete
1				<input type="checkbox"/>
2				<input type="checkbox"/>
3				<input type="checkbox"/>
4				<input type="checkbox"/>
5				<input type="checkbox"/>
6				<input type="checkbox"/>
7				<input type="checkbox"/>
8				<input type="checkbox"/>
9				<input type="checkbox"/>
10				<input type="checkbox"/>

Only Accept Trusted Certificates: Enabled

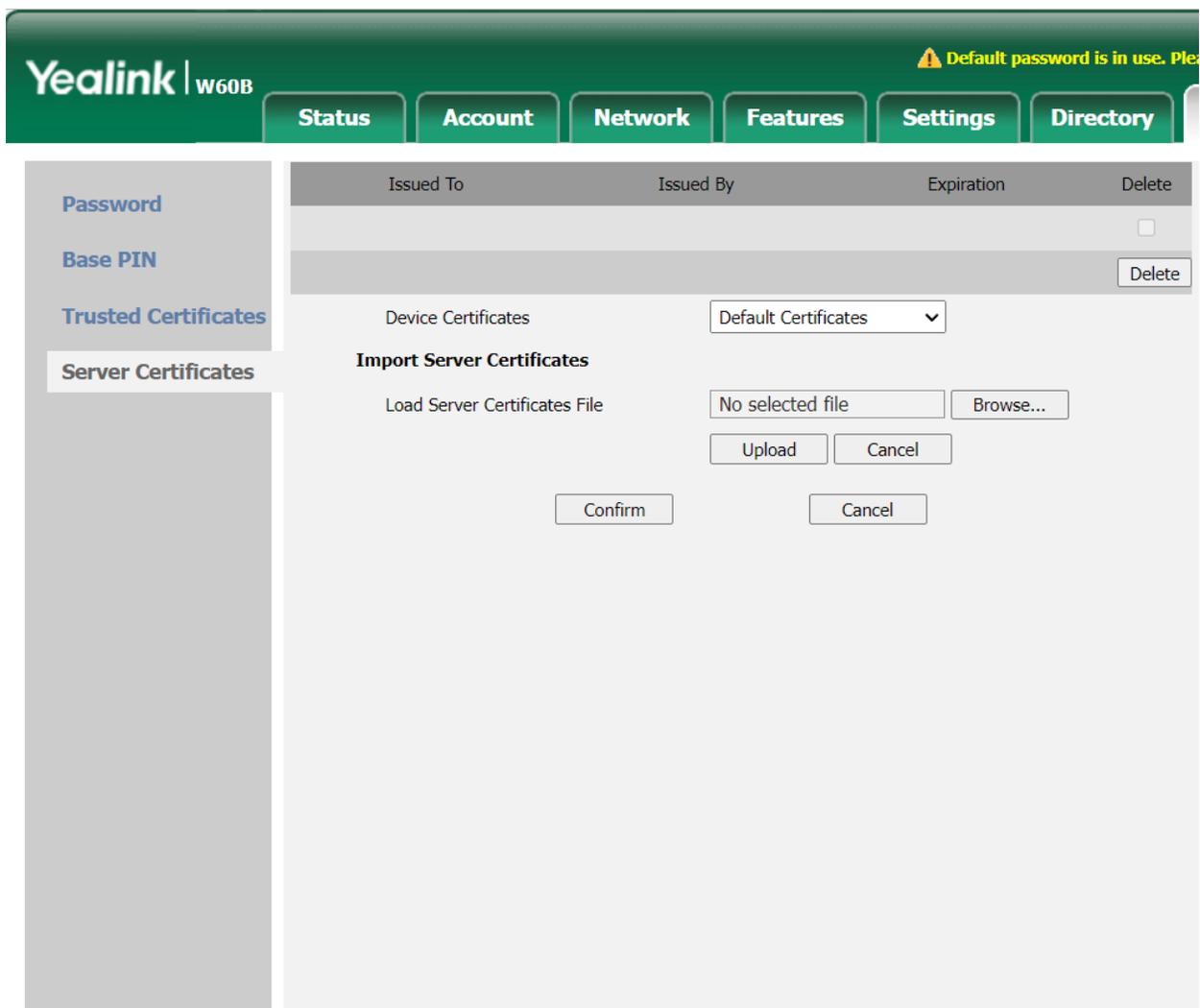
Common Name Validation: Enabled

CA Certificates: Default Certificates

Import Trusted Certificates

Load Trusted Certificates File: No selected file

Buttons: Upload, Cancel, Confirm, Cancel, Delete, Browse...



8. Restrictions

We have noticed following problems during our tests:

1. Display name issue after transfer on Dect
2. No group name displayed on Dect handset
3. No synchronization of MWI when message is read or removed from Dect handset

Please note that these problems are part of the typical restrictions we've announced in SIP generic device article when connecting a 3rd Party SIP device to Rainbow Hub.