

**VIRGIN MEDIA BUSINESS
CLOUD VOICE
PHONE USER GUIDE
YEALINK T4X**

VERSION 2.0

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Introduction

This document shows an IT Manager or administrator how to configure supported IP Phones to enable them to retrieve configuration files from Cloud Voice. All IP phones used on Cloud Voice need to be on the authorised equipment list and must meet the firmware criteria set-out. Any phone not listed will not work with the service. Please refer to the Service Description.

IP phones purchased from Virgin Media Business and captured within the Cloud Voice order form do not require any configuration of the phone as this activity is automated by us.

Overview

This Guide will provide you with the information needed to provision and configure the Cloud Voice service when you use your own devices. It will also provide you with troubleshooting to diagnose potential configuration issues.

Audience

This document is intended for IT Managers or Administrators and their CPE fulfilment teams as it contains elements of installation and configuration.

Supported Devices

The following **Yealink** device types are supported by this Guide:

- Yealink T40P
- Yealink T41P
- Yealink T42G
- Yealink T46G
- Yealink T48G

The available device customisations are as follows:

- ACD – Provides Call Centre ACD Soft Key integration
- BLF – Provides Busy Lamp Field integration
- G711 – Prioritises the G711 standard voice codec
- G729 – Enforces the G729 low bandwidth codec
- HD – Prioritizes the G722 HD voice codec
- DC – Configures the device to operate on a VPN Service. Only change this if advised to
- MCN – Disables Missed Call Notification

If you want to change the Codec preferences or add HD voice, please refer to the Business Portal Administrator Guide, available from Virgin Media Business.

Supported Attachments

The Yealink T46G and T48G devices optionally support additional pieces of equipment that can be attached to the devices to utilize some of the network features.

Busy Lamp Field

The T46 and T48 Yealink devices optionally support the **Busy Lamp Field (BLF)** feature, allowing you to monitor the status of users within your organisation, but can also double up as speed dials. If you wish to use the phone for monitoring of users, please ensure you purchase a BLF user add-on, available from us, and enable the BLF setting against the device in the Business Portal. In addition the user will need to configure BLF from their Features page.

Alternatively, where you need to monitor more users than the phone can support, you can attach up to three **Yealink T46/T48 Expansion Modules** to the side of the phone. An expansion module is only required when monitoring many users that would not all fit on the native phone display. If you wish to use the sidecars for monitoring of users, please ensure you purchase this from Virgin Media Business.

Network, Firewall and Security Considerations

Requirements specific to the Yealink T4x series are as follows:

Protocol	Destination	Destination Port
HTTPS	https://dm.yourwhc.co.uk/dms/phone	TCP 80/443
	193.113.11.10	
	193.113.10.10	

Virgin Media Business recommends that the device is placed behind a router/firewall for security reasons. This is particularly important in situations where the device is issued a public IP making it easily accessible from the Internet. In these cases we recommend that the device's position is hardened to reflect this public accessibility as per standard industry practices.

Provisioning and Configuration

All provisioning activity takes place by Virgin Media Business unless explicitly stated. All configuration activity takes place on the Configuration Portal (Business Portal) unless explicitly stated.

Overview

The supported handsets use HTTPS to retrieve software and configuration files. The manual provisioning process requires the use of a PC or laptop connected to the same network.

Provisioning a user with own device

If you wish to configure and use your own handset with the Cloud Voice service, please ensure that you inform Virgin Media Business during the ordering of your service.

You'll need to tell us of:

- The handset variant – e.g. Yealink T42
- The MAC of the handset
- The user the handset will be used by

We'll now activate the user and store the details on our provisioning server. As part of this activation we will:

- Create a configuration and firmware file using the template configuration file and firmware that we have for that device
- Insert the MAC address into that configuration file
- Insert the firmware version into the firmware file
- Insert the users phone number into that configuration file

The user and Device are provisioned and the physical Device can now be configured. The above steps need to be completed for all users and handsets. Modification to devices is done on the Business Portal. Please refer to the Business Portal Company Administrator User Guide if you need to alter a device type or MAC address.

Once the device is configured the following behaviour will occur:

- Phone will redirect to our Provisioning Server
- Phone will present its MAC address to our Server and authenticate
- Server will look up MAC address and locate configuration file
- Configuration file will download files to the phone (approx. 3-10 minutes)
- Phone will now be configured and working

Device Configuration – Web Interface

This process assumes that DHCP is in use on the network and requires the use of the web interface to enter the Provisioning Server address. DHCP Option 66 can also be used to set the Provisioning Server address: <https://dm.yourwhc.co.uk/dms/phone>.

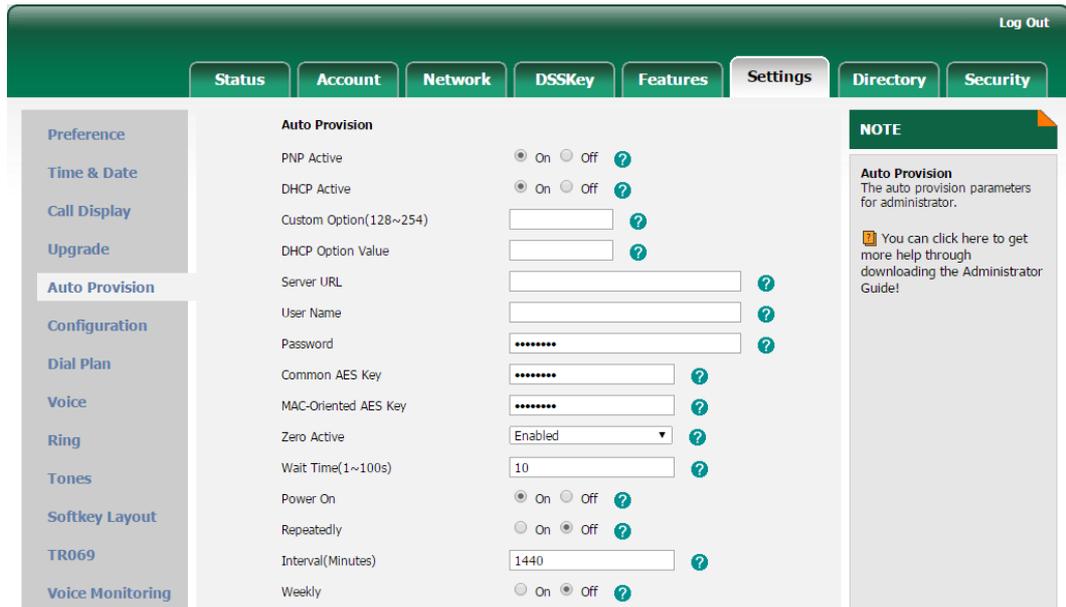
We also recommend that a valid NTP server is set, such as europe.pool.ntp.org. Please note that a DHCP served Provisioning Server address will not be committed to the flash memory.

1. Follow the Yealink documentation and connect the phone to network and power
2. Once the handset has powered up press the OK button on the handset to display its IP address, browse to the private IP address of the phone from a web browser on the same network
3. The Web User Interface will prompt for a Username and Password. Enter the default:
 - a. Username: **admin**
 - b. Password: **admin**



The screenshot shows a web interface for logging into a Yealink Enterprise IP Phone SIP-T41P. The interface has a title 'Login' and a subtitle 'Enterprise IP Phone SIP-T41P'. There are two input fields: 'Username' with the value 'admin' and 'Password' with the value '****'. Below the input fields are two buttons: 'Confirm' and 'Cancel'.

- c. Click the **Confirm** button
 - d. If these do not work, a factory reset may be required
4. Click the **Settings** tab on the top menu and then click the **Auto Provision** link on the left menu

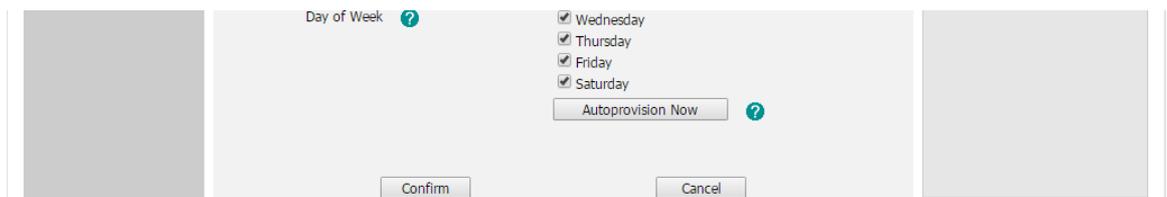


5. Enter <https://dm.yourwhc.co.uk/dms/phone> in the Server URL box



e.

6. Click the **Confirm** button and then click the **Auto Provision Now** button



The handset will request its software and configuration files. The device may power cycle whilst installing software and processing its configuration. If successful, the line provisioned will register for service.

Please note that on successful retrieval of the configuration, the Web Configuration Utility will no longer be available.

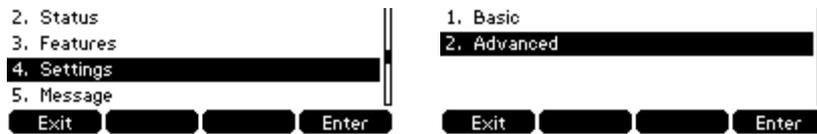
Manual Configuration Using Handset Menu

1. Follow the Yealink documentation and connect the phone to network and power

2. On the home screen press the **Menu** soft key button



3. Use the soft keys or dial pad to navigate to the **Advanced Settings** or **Settings > Advanced** menu



4. Use the dial pad to enter the password **admin** and then press the **OK** soft key



5. Select option **Auto Provision**



6. Using the dial pad enter the URL <https://dm.yourwhc.co.uk/dms/phone> and then press the **Save** soft key



7. Confirm that you want to provision now by pressing the **OK** soft key



The handset will request its software and configuration files. The device may power cycle whilst installing software and processing its configuration. If successful, the line provisioned will register for service.

Please note that on successful retrieval of the configuration, the Web Configuration Utility will no longer be available.

Trouble Shooting

Device Fails to Register

- Check that you have provided the correct details to Virgin Media Business
- Check that you have entered the correct MAC address of the handset
- Check that the Provisioning URL is set to <https://dm.yourwhc.co.uk/dms/phone> and ensure the device can access 193.113.11.10 and 193.113.11.10 over HTTP (TCP port 80) and HTTPS (TCP port 443)
- Check that the network meets the requirements in the Cloud Voice Service Description firewall configurations
- Check that the device has power and network connectivity
- If all of the above fails, please reset the phones configuration as per the steps identified below

Inbound or Outbound Calls Fail

- Check that the device is registered as above
- Check that the correct telephone number and/or extension are provisioned for the user
- For inbound calls check that you do not have an unwanted divert in place or Do Not Disturb configured in the Business Portal

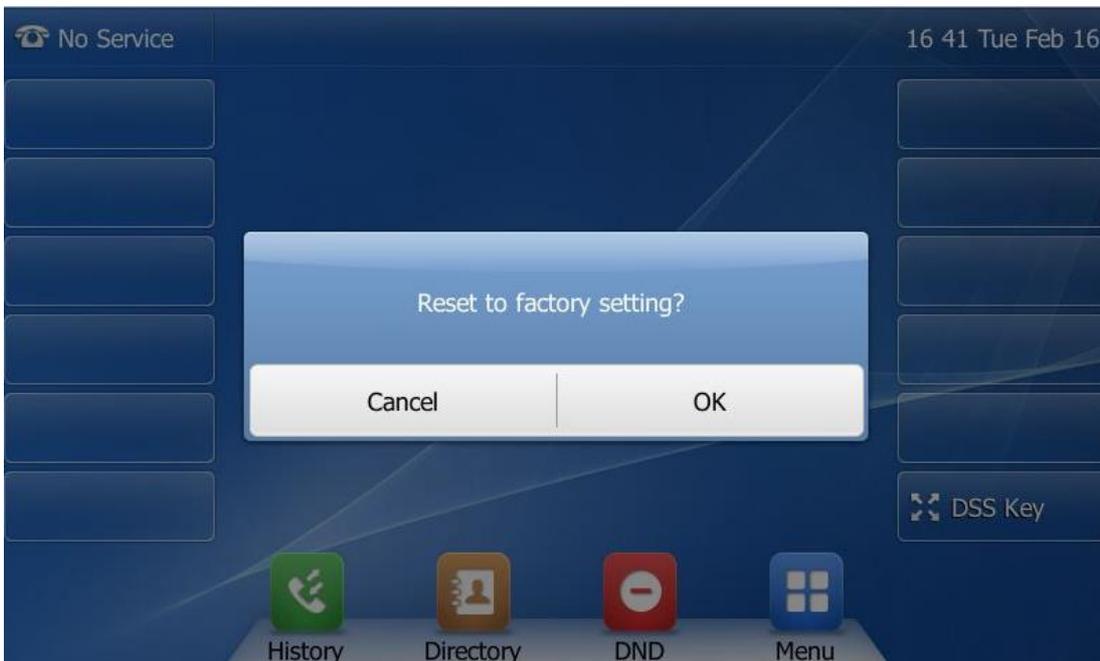
Factory Reset Instructions

In the event that you need to reset the entire device back to its original factory specification, please follow the below procedure.

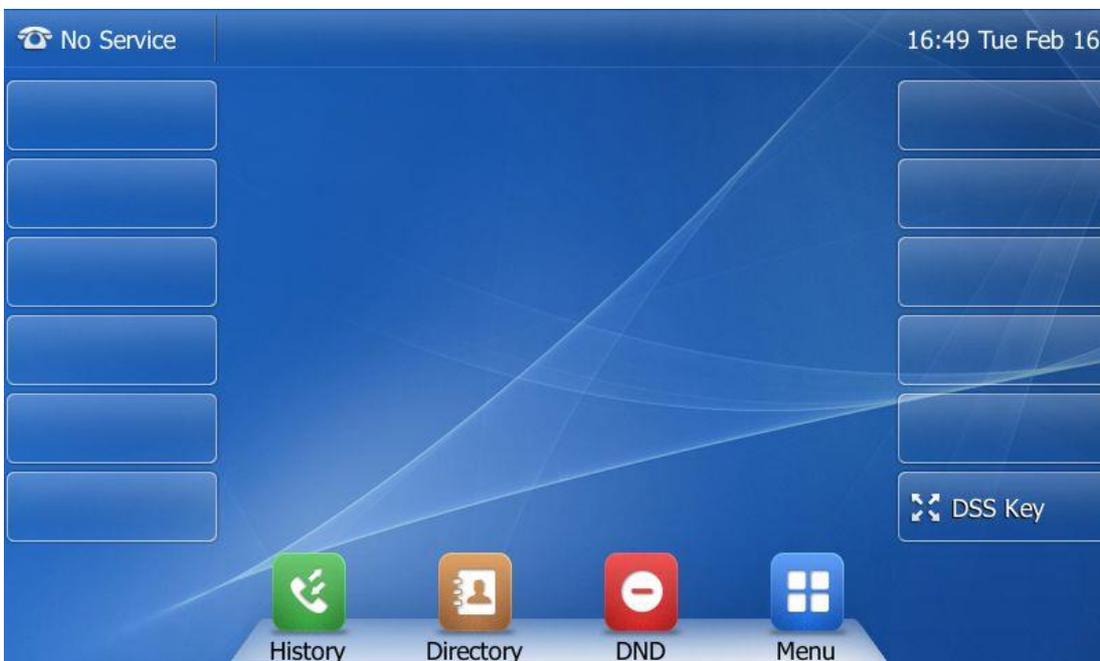
1. Press and hold the **OK** key on the device until you are presented with a screen prompt (approx. 5 seconds)



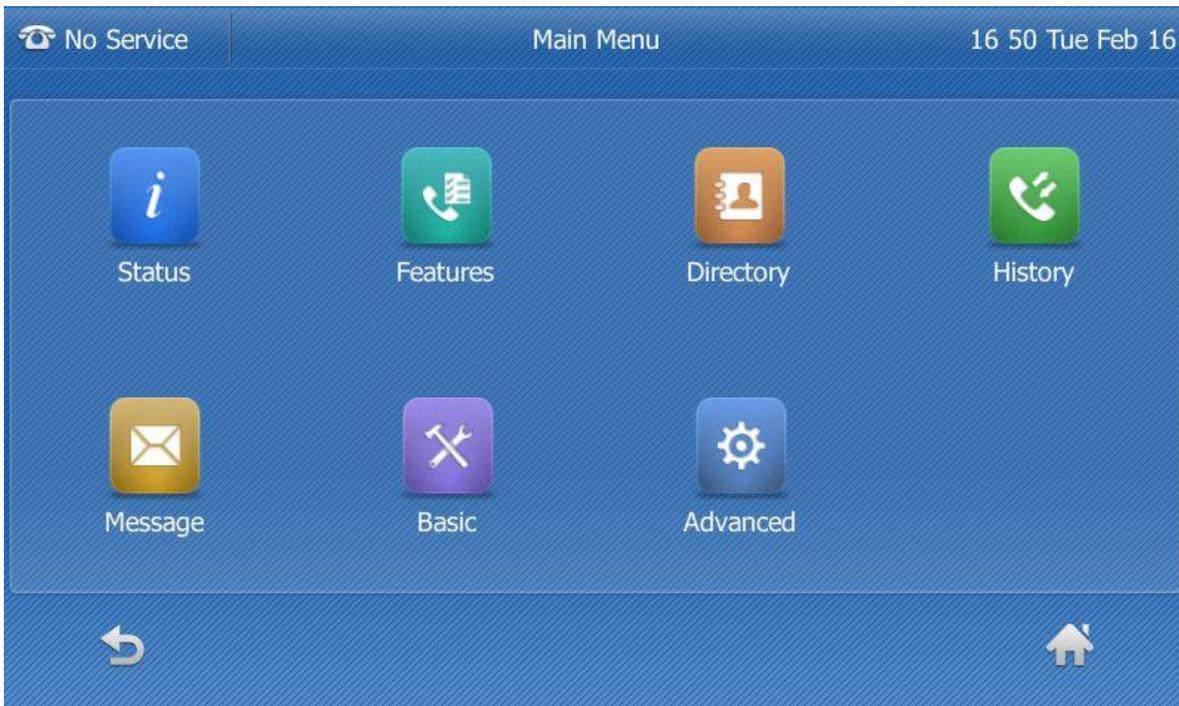
- The display should prompt you to check if you want to “**Reset to factory setting?**” Press the OK hard/soft key on the handset



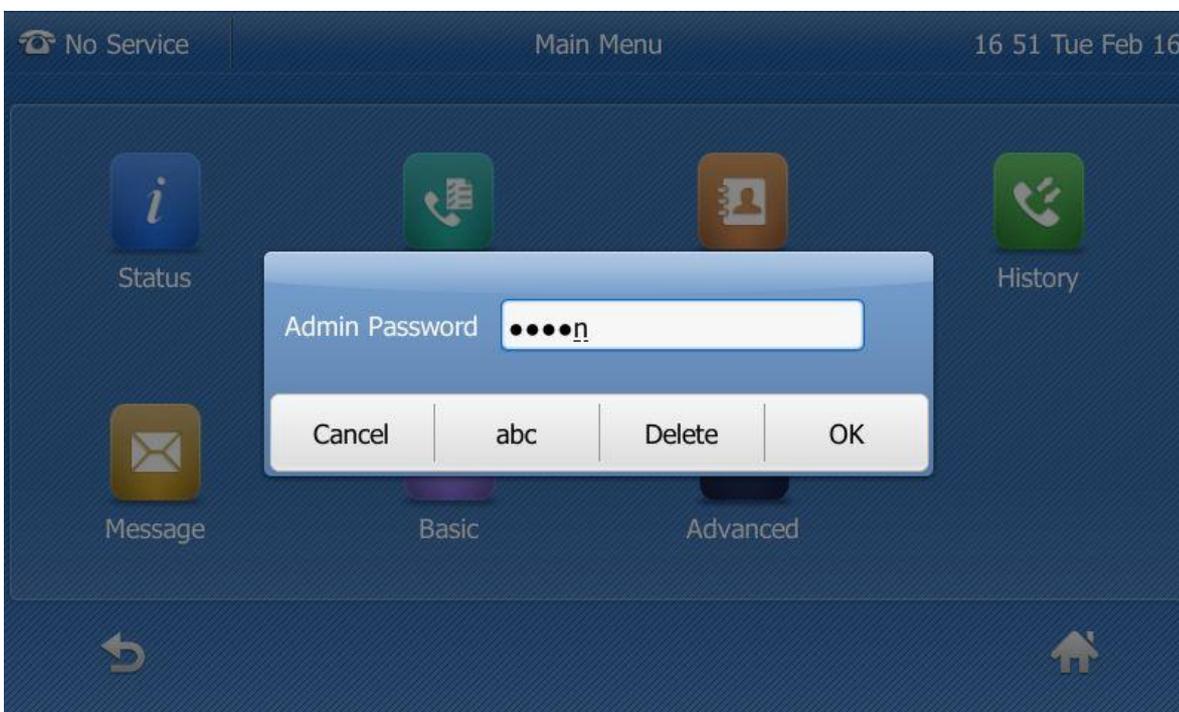
- Wait for the phone to cycle through the reset process (this may take a couple of minutes)
- Once the phone boots up to the home screen you should see **No Service** showing in the top left hand corner of the screen



5. Using the touch screen on the device press the Menu button then select '**Advanced**'



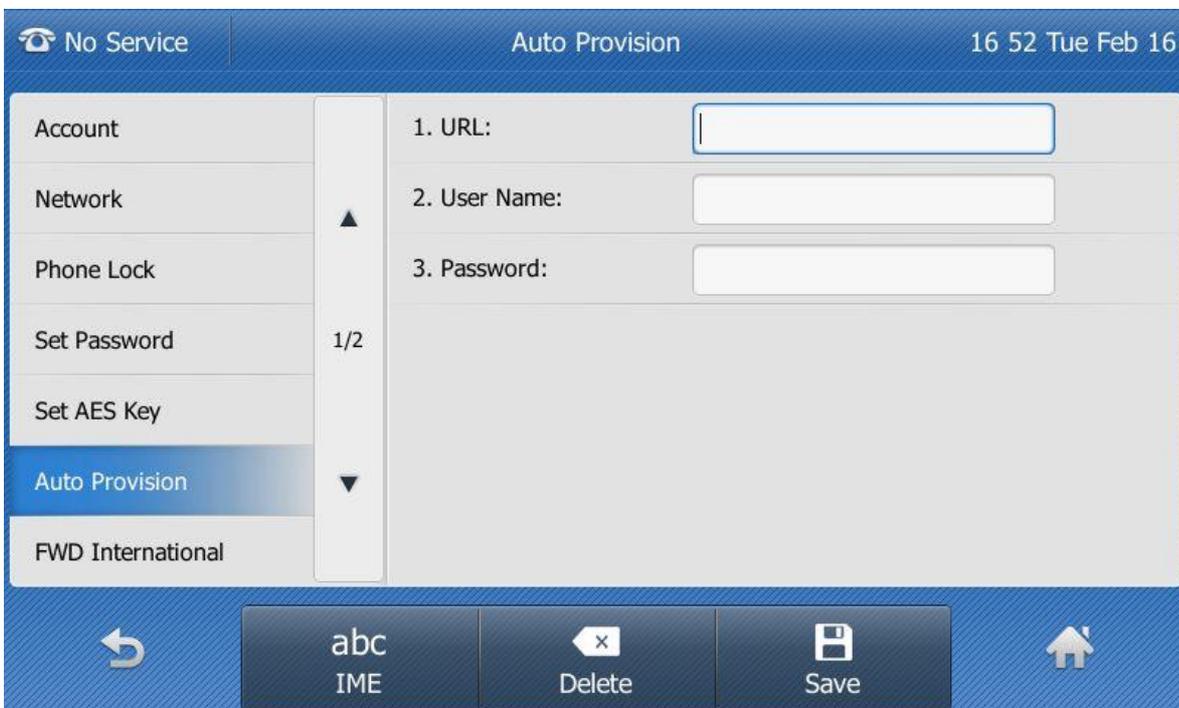
6. You will be prompted for an **Admin Password**. Using the keypad enter **Admin** and then using the touch screen select **OK**. You may need to switch from numeric to alpha using the options below the password field



7. You will now see options listed on the left hand side, please select **Auto Provision**



8. In the **1. URL** field enter **https:// dm.yourwhc.co.uk/dms/phone** and then using the touch screen select **Save**. You may need to switch from numeric to alpha using the options at the bottom of the screen



9. The display should prompt you to check if you want to **Provision Now**. Press the OK hard/soft key on the handset. Please note: You will be returned to the home screen and it may seem like nothing is happening but please be patient, the phone will eventually reboot

Once reboot completes this then completes the procedure. The phone will now attempt to download any user configuration that you have built on Cloud Voice.

