Battery Optimization Guide

Introduction

The AX83H battery supports 200 hours of standby time and 9 hours of talk time. However, certain factors may affect the maximum achievable duration. Users must understand these factors and configure the AX83H accordingly. This guide provides detailed instructions on correctly configuring and using the AX83H to achieve optimal battery endurance, ensuring the best user experience.

Common Issues and Resolutions

If the battery life of the AX83H suddenly deteriorates, the first thing to check is whether the device remains constantly in an awake state. Many factors can cause the system to wake up or stay awake for prolonged periods. The following are common scenarios that may result in the device staying awake:

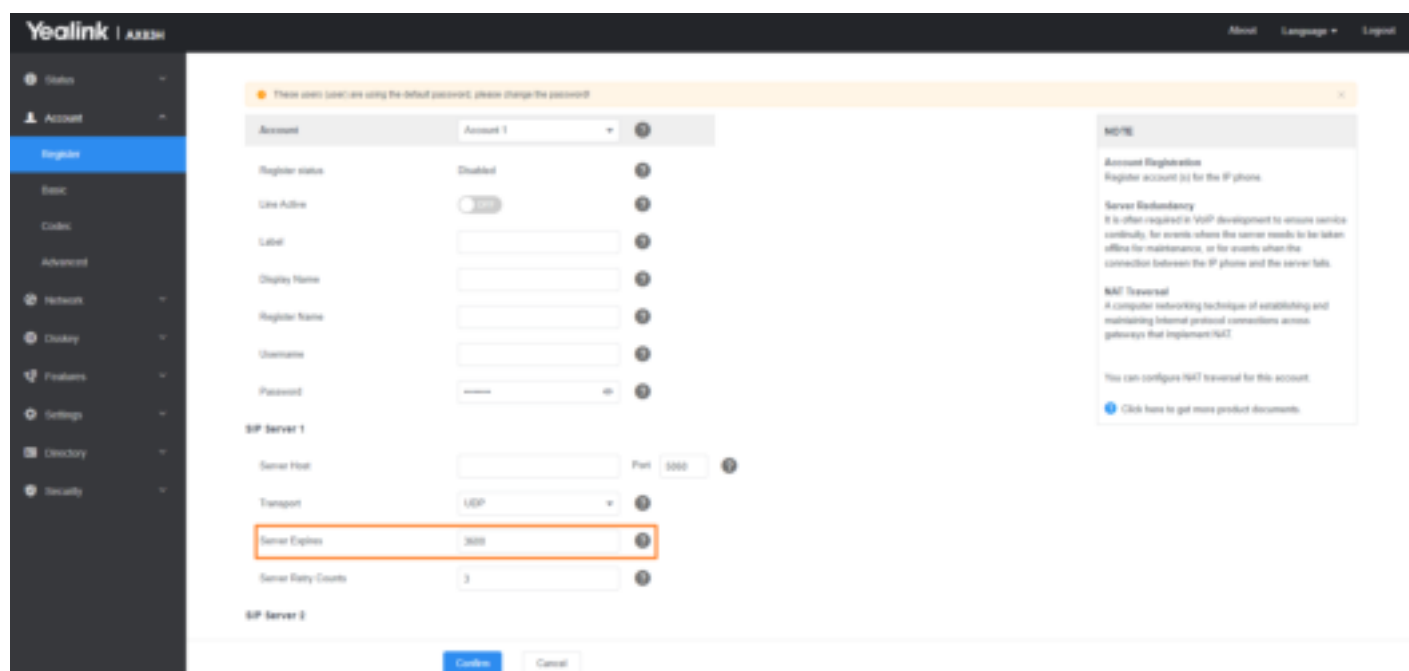### 1. The SIP server registration expiration time is too short.

Introduction

Generally, the SIP server registration expiration time is a larger value (3600 seconds), but in some special scenarios, a smaller value (60 seconds or less) may be used, which will cause the system to frequently wake up and refresh registration requests. Please ensure that the **Server Expires** is a reasonable value.

Auto Provisioning

Parameter	Permitted Values	Default	Description
account.X.sip_server.Y.expires	Integer from 30 to 2147483647	3600	It configures the registration expiration time (in seconds) of SIP server Y.

Set via the Web User Interface

2. NAT keep-alive setting is too short.

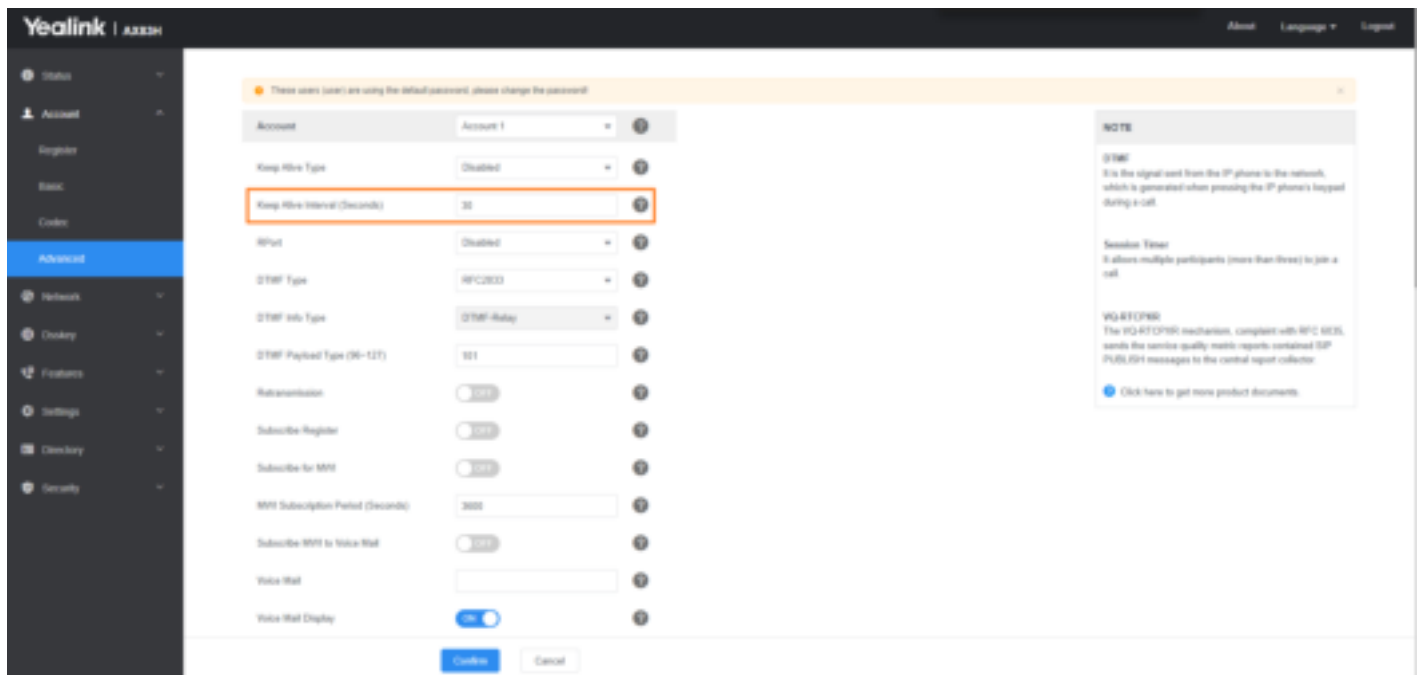**2.1 Device SIP or NAT keep-alive settings:**

Introduction

If you use a shorter interval for SIP or NAT keep-alive, it will severely affect battery life. First, check if the device requires NAT keep-alive to function properly. If you need to use NAT keep-alive, use an interval that is slightly lower than the NAT mapping refresh time.

Auto Provisioning

Parameter	Permitted Values	Default	Description
account.X.nat.udp_update_enable[1]	**0**-Disabled **1**-Default (the phone sends the corresponding packets according to the transport protocol) **2**-Options (the phone sends SIP OPTIONS packets to the server) **3**-Notify (the phone sends SIP NOTIFY packets to the server)	1	It sets the type of keep-alive packets sent by phone.
account.X.nat.udp_update_time[1]	Integer from 0 to 3600	30	It configures the interval (in seconds) at which the phone sends a keep-alive package. ⓘ **NOTE** **It works only if** `account.X.nat.udp_update_enable` **is set to 1, 2 or 3.**

[1]If you change this parameter, the phone will reboot to make the change take effect.

Set via the Web User Interface

2.2 Server keep-alive setting:

Introduction

Some servers have enabled the NAT device keep-alive feature, which sends SIP Options keep-alive messages every 20-30 seconds. This message periodically wakes up the system and has a significant impact on battery life. If possible, please adjust the keep-alive message interval of the server according to the NAT mapping refresh time. Confirm the necessity of this feature, and if not needed, please disable it.

3. TR-069 feature

Introduction

TR-069 is a technical specification, which is defined by the Broadband Forum. It defines a mechanism that encompasses secure auto-configuration of a CPE (Customer-Premises Equipment) and also incorporates other CPE management functions into a common framework. TR-069 uses common transport mechanisms (HTTP and HTTPS) for communication between CPE and ACS (Auto Configuration Servers).
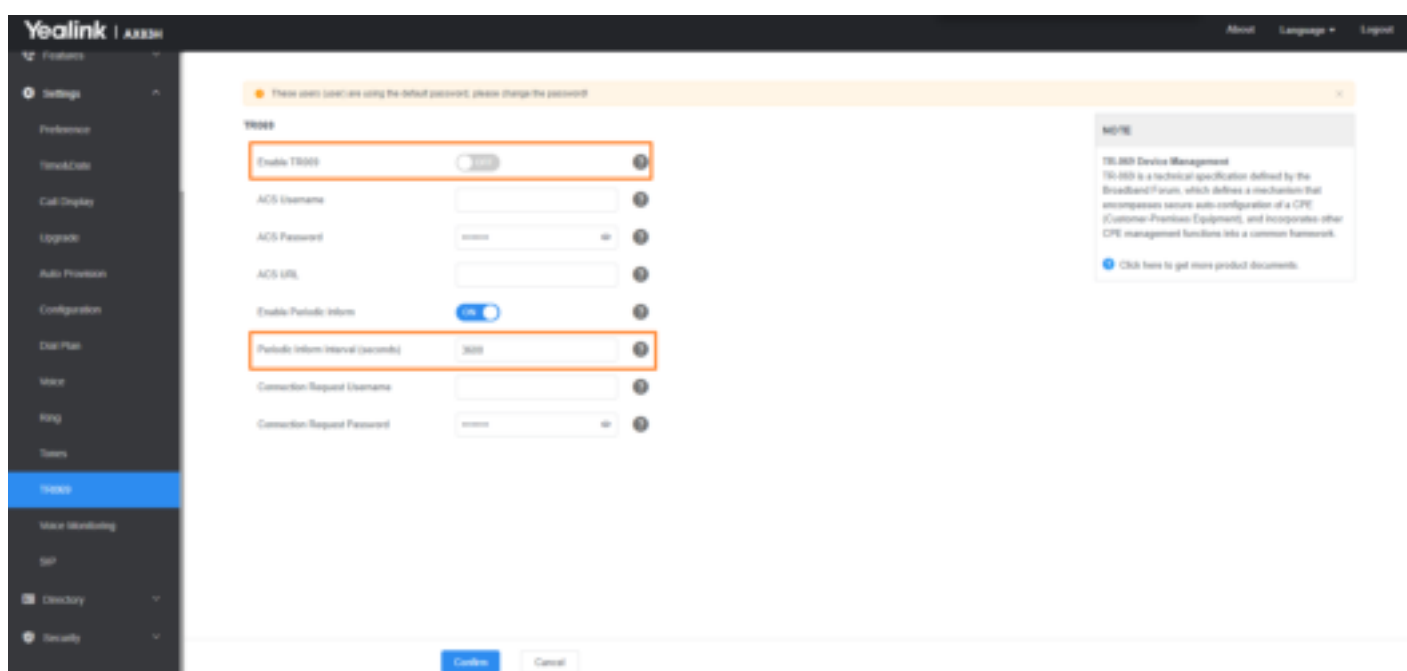
When the device has the TR-069 feature enabled, it regularly establishes connections and reports relevant status to the server. Please disable the TR-069 feature or adjust the **Periodic Inform Interval (seconds)** of TR-069 to a longer time.

Auto Provisioning

Parameter	Permitted Values	Default	Description
static.managementserver. periodic_inform_enable	**0**-Disabled **1**-Enabled	1	It enables or disables the phone to periodically report its configuration information to the ACS server

static.managementserver. periodic_inform_interval	Integer from 5 to 4294967295	60	It configures the interval (in seconds) at which the phone reports its configuration to the ACS server. ⓘ **NOTE** It works only if `static.managementserver.periodic_inform_enable` is set to 1 (Enabled).

Set via the Web User Interface

4. The frequency of interacting with servers.

Introduction

Frequent synchronization and updates of the remote phonebook/Broadsoft Directory with the server can increase network activity and data transfer, resulting in higher battery consumption. Therefore, we recommend **extending the refresh frequency** of the directory as much as possible to reduce the frequency of interaction with the server.
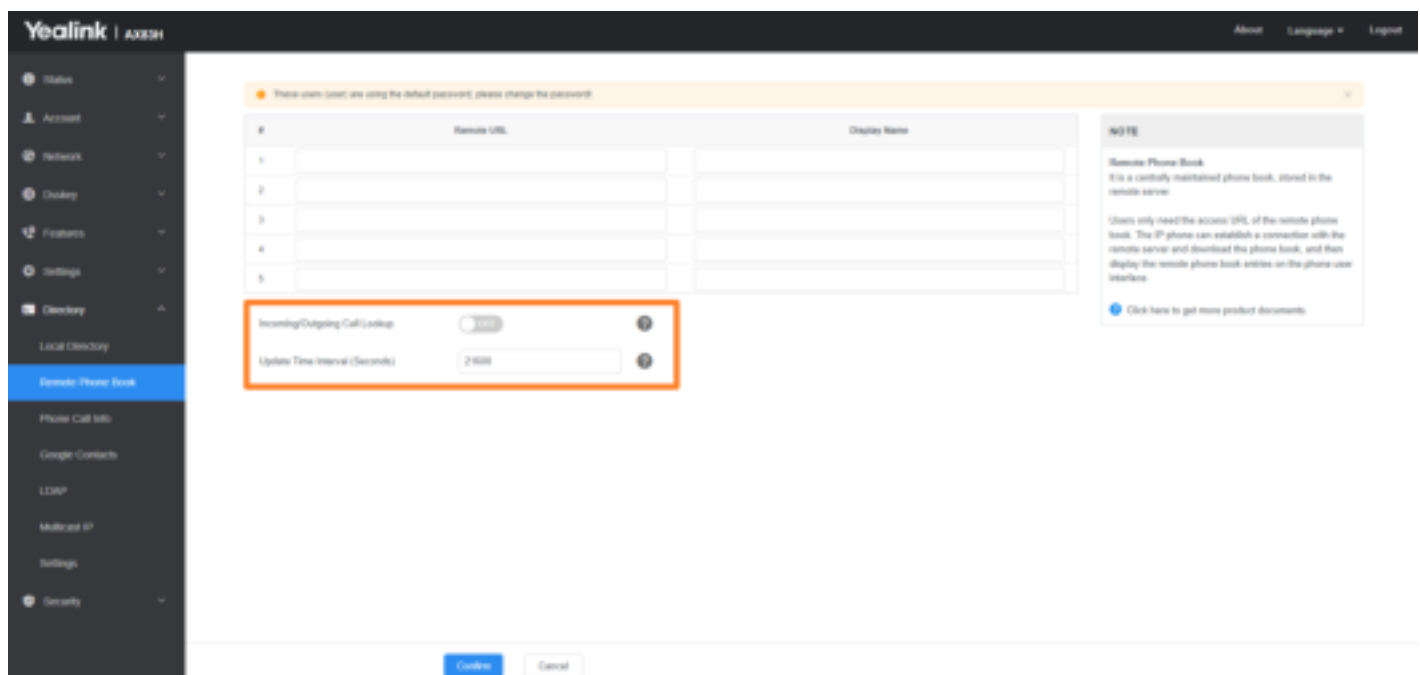
Auto Provisioning

Parameter	Permitted Values	Default	Description
features.remote_phonebook.flash_time	0, Integer from 3600 to 1296000	21600	It configures how often to refresh the local cache of the remote phone book. If it is set to 3600, the phone will refresh the local cache of the remote phone book every 3600 seconds (1 hour). If it is set to 0, the phone will not refresh the local cache of the remote phone book.

directory.update_time_interval	Integer from 60 to 34560	60	Configures the interval (in minutes) for the IP phone to update the data of the BroadSoft Directory from the BroadSoft server. ⓘ **NOTE** It works only if `bw.xsi.directory.enable` and `bw.xsi.directory.update.enable` are set to 1 (Enabled).

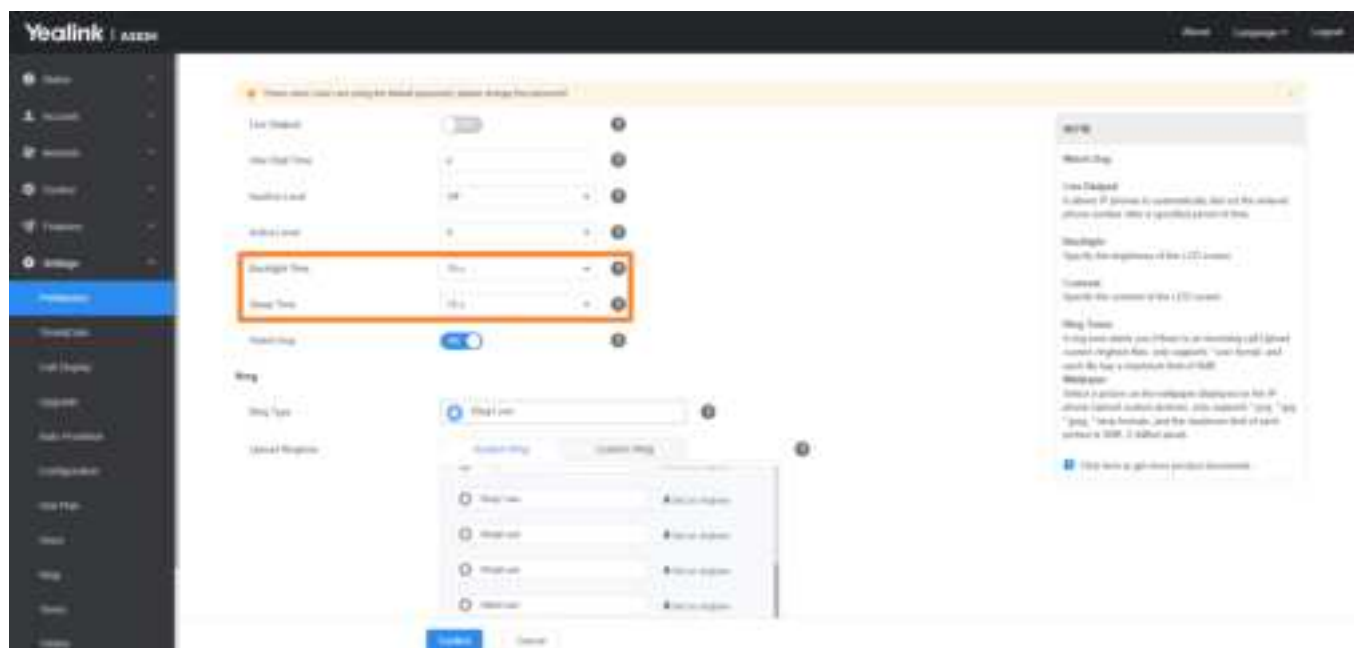> ☼ **TIP**
>
> For more detailed information, refer to:
> - Broadsoft
> - 后续补充Wi-Fi phone这边的链接-Remote Phonebook

Set via the Web User Interface

Additional Suggestions to Extend Battery Life

Here are some additional methods to extend the battery life of the AX83H:

1. Adjust the volume, the lower the volume, the more power it saves.

2. Turn off the LED indicator and key backlight. Reduce the screen brightness and set the screen timeout to 15 seconds (minimum).

3. Please turn off the Bluetooth function when not in use.

4. When the battery charge reaches 0%, the battery is fully discharged. Storing it in this state for a long time will damage the battery and cause the battery's performance to degrade over time. Please check the battery charge regularly and maintain the battery to avoid full discharge.

5. During weekends/holidays, it is recommended to long press the [button icon] button to shut down the phone.

Troubleshooting

If the device is confirmed to have a short standby time, you can contact Yealink engineers and attach configuration files, log files, and packet capture files. We will help you identify the problem and resolve it as soon as possible.