

Metaswitch SIP Provisioning Server Endpoint Pack Documentation

This document explains how to use a specific endpoint pack with the Metaswitch SIP Provisioning Server. If you require further help using this pack and this is an accredited or certified device then Metaswitch will be able to provide assistance. For community packs, please contact the pack author.

For further details on how to develop or extend endpoint packs please see the official documentation, including "Creating an Endpoint Pack". To find out more about your SIP end-point, please consult the Admin and User guides.

Note: this endpoint pack is only compatible with SIP PS SDK version 2.02 and above. It should not be installed on systems using earlier versions. If you are unsure which version of SIP PS SDK you are running, see <https://communities.metaswitch.com/docs/DOC-91097> for a guide.

Please note: this pack requires EAS version 8.1.04-14 or above (inc. 8.3) to function. Installing it on earlier versions could cause phones not to register successfully.

For general information on how to use the SIP Provisioning Server, please contact your Metaswitch representative.

Pack Details

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|---|--|
| Endpoint Pack ID | Yealink_T2X_certified |
| Author | Yealink Network Technology Co., Ltd |
| Minimum SIP PS Version | 2.02 |
| Version | 4 |
| Support contact | support@yealink.com |
| Date of Publication | 2015-05-30 |
| End-point Vendor | Yealink |
| End-point devices covered by this pack | T19P,T20P ,T21P,T21P_E2,T22P,T23P/G,T26P,T28P |
| Firmware version(s) included | T19P: T19P-31.71.202.51.rom T20P: T20P-9.71.202.177.rom T21P: T21P-34.71.202.91.rom T21P_E2: T21P_E2-52.-35.80.202.1.rom T22P: T22P-7.71.202.177.rom T23P/G: T23P/G-44.80.202.221.rom T26P: T26P-6.71.202.177.rom T28P: T28P-2.71.202.177.rom |

Setup Instructions

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| DHCP Option to use | 66 |
| DHCP URL | http[s]://example.com/sip-ps/ |
| How to configure provisioning URL via web interface | <ul style="list-style-type: none"> - Navigate to the 'Settings' link on the upside. - Navigate to the 'Auto Provision' link on the left hand |

| | |
|---|--|
| | side |
| | <ul style="list-style-type: none"> - Enter http[s]://example.com/sip-ps/ in the Server URL field. - Click on "Confirm" to save |
| How to configure provisioning URL via endpoint menu | Menu > 4. Settings > 2. Advanced Settings > 9. Auto Provision > 1. URL |
| Authorisation mode | HTTP Digest |
| Non-alphanumeric character input instructions (enter n/a if not possible to enter) | Press the 'Abc' softkey to switch to non-numeric input mode. Press key * for " * , ! : @ + - \$ / " , key # for " # " |

Authentication Login

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|---------------------------------------|---|
| HTTP Digest login instructions | <p>For T19P, T20P, T21P, T22P, T26P, T28P: After phone starts, the screen will display "Zero touch" interface, click OK, then click Next, enter the subscriber DN as username and EAS password as password, and click OK.</p> <p>Note: If you do not see the "Zero touch" in the screen, please click Setting-> Auto Provision-> Zero Active, enable this feature, and restart the phone.</p> <p>For T21P_E2, T23P/G: After phone starts, the LCD screen will display a "Login" Soft Key when the phone is idle, click "Login" Soft Key, The phone will display an input form asking for a username and password. Enter the subscriber DN for the username and their EAS password for the password, and click OK.</p> |
|---------------------------------------|---|

Default Settings

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|--|-------|
| Default user password for web UI | user |
| Default passwords for endpoint menu, if different from web UI | |
| Default admin password for web UI | admin |

Miscellaneous

This pack is compatible with Yealink firmware X.71.202.X and X.80.202.X. If an endpoint of other firmware is provisioned then it will be given this version automatically .

Changes to MWI defaults

Please note that the behaviour in the pack has now changed so that phones do not SUBSCRIBE to MWI by default. This is because the CFS Remote Media Gateway Model fixbit "Expects unsolicited MWI" is set by default in our recommended RMGMs. There are now two options:

- **"Phone uses unsolicited MWI" (default):** the phone does not send SUBSCRIBEs to MWI. If this is chosen the "Expects unsolicited MWI" fixbit should be checked in the Remote Media Gateway Model.
- **"Phone subscribes to MWI":** the phone does send SUBSCRIBEs to MWI. If this is chosen the "Expects unsolicited MWI" fixbit should be NOT be checked in the Remote Media Gateway Model. If the phone is a shared line then it will not be able to subscribe and you should use "Phone uses unsolicited MWI".

If you wish your phones to continue sending SUBSCRIBEs to MWI after installing the latest version of this pack, you will need to change the MWI setting to "Phone subscribes to MWI".

Release Notes

| Change | Comments | SFR (if applicable) |
|---|--|------------------------|
| Optimized the feature of Basic Call Park. | The feature of Basic Call Park can now be used in the new version. To configure this feature via CommPortal phone configurator: Programmable Keys->Key N->Soft Key Action For more information, refer to <i>Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide</i> . Note: only applicable to T21P_E2 and T23P/G | |
| Optimized the Http-Digest authentication | A new soft key "Login" on idle LCD screen when the IP phone was powered on has been added. User can press the Login soft key to enter the Auto Provision Screen, with entering the user name and the password the phone would send the information to the server for authentication. For more information, refer to <i>Yealink_SIP_Phones_Integrated_with_Metaswitch_CommPortal_Phone_Applications_User_Guide</i> and <i>Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide</i> . Note: only applicable to T21P_E2 and T23P/G | |
| Added the feature that the Time zone can synchronize with the | A new valid value has been added to configure Time Zone Sync. If you configure "Match My Account" as the default value of Time Zone, the phone will match DST & Time Zone sync settings with the Metaswitch EAS/CFS Account . <ul style="list-style-type: none"> • Match My Account To configure this feature via CommPortal phone configurator: Preferences->Time & Date->Time Zone . For more information, refer to | |

server *Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide.*

A new configuration has been added to enable or disable Push-to-talk feature.

Added the feature of Push-to-talk

- Push to talk mode enable

To configure this feature via CommPortal phone configurator:

Features->Intercom

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide.

Note: only applicable to T21P_E2 and T23P/G

Multiple new configurations have been added to configure CommPortal Phone Applications. They are listed below--See their help text in the phone profile editor for a full description of what they do:

Added a new Submodule of CommPortal Phone Applications

- CommPortal Phone Apps Enable
- CommPortal Web Access
- CommPortal Web Access Username
- CommPortal Web Access Password
- CommPortal Keep Alive Interval Time(min)
- Hot Desking Log Out Enable
- Network Contacts Enable
- Network Contacts Update Interval(min)
- Contacts Group Enable
- Contacts Group Display Name
- Extensions Group Enable
- Extensions Group Display Name
- MLHGS Group Enable
- MLHGS Group Display Name
- Network Call List Enable
- Replace Local Call List
- Messages List Enable
- Automated Call Distribution Enable
- Automated Call Distribution Enable For Account

To configure this feature via CommPortal phone configurator:

Features-->CommPortal Phone Apps

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_CommPortal_Phone_Applications_User_Guide.

Note: only applicable to T21P_E2 and T23P/G

Added a new feature of DND Sync for Shared Line

A new configuration has been added to enable or disable the DND synchronization feature for the shared line.

- DND Sync for Shared Line

To configure this feature via CommPortal phone configurator:

Features->DND&Forward

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide.

Note: only applicable to T21P_E2 and T23P/G

Added some features to the

Multiple soft key actions have been added. They are listed below:

- Park Call
- Paging List
- ACD

Soft key
Action

- Log Out
- Network Contacts
- History
- Messages List

To configure this feature via CommPortal phone configurator:

Programmable Keys->Key N->Soft Key Action

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide
and

Yealink_SIP_Phones_Integrated_with_Metaswitch_CommPortal_Phone_Applications_User_Guide.

Note: only applicable to T21P_E2 and T23P/G

Modified the configuration name of Intercom feature

Modified the display name of the feature "Intercom" as "Intercom/PTT". It enables or disables the phone to configure an Intercom/PTT key for the line key.

To configure this feature via CommPortal phone configurator:

Programmable Keys->Key N->Soft Key Action

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide.

Note: only applicable to T21P_E2 and T23P/G

Added a new Submodule to Paging Groups

Multiple new configurations have been added to configure a Paging Group. They are listed below--See their help text in the phone profile editor for a full description of what they do:

- Description
- IP Address
- Port

To configure this feature via CommPortal phone configurator: Paging Groups->Paging Group N.

For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide.

Note: only applicable to T21P_E2 and T23P/G

Added some configurations to the Submodule of Outbound

Multiple new configurations have been added to configure Outbound backup. They are listed below – See their help text in the phone profile editor for a full description of what they do:

- Backup outbound proxy
- Backup outbound proxy Port
- Proxy Fallback Interval

To configure this feature via CommPortal phone configurator: Line-->SIP Server

Note: only applicable to T21P_E2 and T23P/G

Added some configurations of Voice Mail Access

Multiple new configurations have been added to configure the voice mail access code for account X. They are listed below – See their help text in the phone profile editor for a full description of what they do:

- Message Waiting Indicator
- Voice Mail Access Code

To configure this feature via CommPortal phone configurator: Line--

| Code | >Voice Mail |
|---|--|
| Added two valid values to the Submod ular of Ring Tone | <p>Two valid values have been added to the configuration of Ring Tone for account X. They are listed below:</p> <ul style="list-style-type: none"> • Silent.wav • Splash.wav <p>To configure this feature via CommPortal phone configurator: Line-->Ring Tone</p> <p>Note: only applicable to T21P_E2 and T23P/G</p> |
| Deleted the submod ular of DTMF | The Submodular of DTMF has been deleted . |
| Added some configur ations to the Submod ular of Session Timer | <p>Multiple new configurations have been added to configure SIP Session Timer . They are listed below – See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • Session Timer • Session Expires • Session Refresher <p>To configure this feature via CommPortal phone configurator: Line-->Session Timer</p> |
| Adjusted some configur ations on the Submod ular of Session Timer | <p>The CommPortal web setting path of the following configurations has been adjusted :</p> <ul style="list-style-type: none"> • SIP Session Timer T1 • SIP Session Timer T2 • SIP Session Timer T4 <p>CommPortal web setting path of Endpoint Pack Version 3:Line ->Session Timer</p> <p>CommPortal web setting path of Endpoint Pack Version 4:Preferences->SIP</p> <p>Note:these parameters are incompatible between the EP V3 version and EP V4 version.</p> <p>Previous settings about these parameters do not work in the EP V4 version.</p> |
| Added a new Submod ular to Voice Monitor | <p>Multiple new configurations have been added to configure Voice Monitor for account X. They are listed below-See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • VQ RTCP-XR Collector name • VQ RTCP-XR Collector address • VQ RTCP-XR Collector port <p>To configure this feature via CommPortal phone configurator: Line-->VQ RTCP-XR</p> <p>Note: only applicable to T21P_E2 and T23P/G</p> |
| Added some configur ations to | <p>Multiple new configurations have been added . They are listed below-- See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • Display Method on Dialing |

the
Submod
ular of
General

- Reset By Long Pressing Ok
- Recent Call In Dialing

To configure this feature via CommPortal phone configurator:
Features-->General
Note: only applicable to T21P_E2 and T23P/G

Deleted
the
Submod
ular of
Conferen
ce

The Submodular of Conference has been deleted .

Added
some
configur
ations to
the
Submod
ular of
LDAP

Multiple new configurations have been added to configure LDAP feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- LDAP TLS Mode
- LDAP Lookup for Callout
- LDAP Search for Incoming Call

To configure this feature via CommPortal phone configurator:
Features-->LDAP
Note: only applicable to T21P_E2 and T23P/G

Added a
new
configur
ation to
the
Submod
ular of
Remote
Phone
book

A new configuration has been added to enable or disable the IP phone to refresh the local cache of the remote phone book every time the phone accesses the remote phone book:

- Refresh When Accessing Remote Phonebook

To configure this feature via CommPortal phone configurator:
Features-->Remote Phone Book
Note: only applicable to T21P_E2 and T23P/G

Added
some
configur
ations to
the new
Submod
ular of
Notificati
on
Popups

Multiple new configurations have been added to configure Notification Popups feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- Display Voice Mail Popup
- Display Missed Call Popup
- Display Forward Call Popup
- Display Text Message Popup

To configure this feature via CommPortal phone configurator:
Features-->Notification Popups .
Note: only applicable to T21P_E2 and T23P/G

Added a
new
configur
ation to
the
Submod
ular of
General

A new configuration has been added to enable or disable the phone to forbid the calling function without an account:

- Forbid a Calling For Unregistered Account

To configure this feature via CommPortal phone configurator:
Preferences-->General
Note: only applicable to T21P_E2 and T23P/G

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| <p>Added a new Submod ular of Call Display</p> | <p>Multiple new configurations have been added to configure Call Display feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • Display Contact Photo • Display Called Party Information • Call Information Display Method <p>To configure this feature via CommPortal phone configurator: Preferences-->Call Display Note: only applicable to T21P_E2 and T23P/G</p> |
|--|--|

| | |
|---|---|
| <p>Added two valid values to the Submod ular of Ring Tone</p> | <p>Two valid values have been added to the configuration of Ring Tone. They are listed below:</p> <ul style="list-style-type: none"> • Silent.wav • Splash.wav <p>To configure this feature via CommPortal phone configurator: Preferences-->Ring Tone Note: only applicable to T21P_E2 and T23P/G</p> |
|---|---|

| | |
|--|--|
| <p>Deleted the configur ation of Record in the submod ular of Country Tone</p> | <p>The configuration of Record in the submodular of Country Tone has been deleted.</p> |
|--|--|

| | |
|---|---|
| <p>Added a new Submod ular of Input Methods</p> | <p>Multiple new configurations have been added to configure Input Methods feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • Default Input Method For Directory Searching • Default Input Method For Directory Editing • Upload Input Method <p>To configure this feature via CommPortal phone configurator: Preferences-->Input Methods Note: only applicable to T21P_E2 and T23P/G</p> |
|---|---|

| | |
|--|---|
| <p>Added a new Submod ular of Logo</p> | <p>Multiple new configurations have been added to configure Logo feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:</p> <ul style="list-style-type: none"> • Logo Mode • Upload Logo • Delete Logo <p>To configure this feature via CommPortal phone configurator: Preferences-->Logo Note: only applicable to T21P_E2 and T23P/G</p> |
|--|---|

| | |
|---------------------------|---|
| <p>Added a new Submod</p> | <p>Multiple new configurations have been added to configure Voice Monitoring feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:</p> |
|---------------------------|---|

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- | | |
|--------------------------------|--|
| ular of Voice Monitoring | <ul style="list-style-type: none"> • Send RTCP-XR Report Packet • Send RTCP-XR Report During a Call • VQ RTCP-XR Session Report • VQ RTCP-XR Interval Report • Period for Interval Report • Warning threshold for Moslq • Critical threshold for Moslq • Warning threshold for Delay • Critical threshold for Delay • Display Report options on Web • Display Report options on phone • Report options on phone UI |
|--------------------------------|--|

To configure this feature via CommPortal phone configurator:

Preferences-->Voice Monitoring

Note: only applicable to T21P_E2 and T23P/G

Added a
new
Submod
ular of
SIP

Multiple new configurations have been added to configure SIP feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- SIP NAT STUN Enable
- SIP NAT STUN Server
- SIP NAT STUN Server Port
- SIP Session Timer T1
- SIP Session Timer T2
- SIP Session Timer T4
- Local SIP Port
- TLS SIP Port
- Accept SIP Messages From Trusted Server

To configure this feature via CommPortal phone configurator:

Preferences-->SIP

Note: only applicable to T21P_E2 and T23P/G

Added a
new
Submod
ular of
Power
LED

Multiple new configurations have been added to configure Power LED feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- Common Power Light On
- Talk/Dial Power Light On
- Ring Power Light Flash
- Voice/Text Mail Power Light Flash
- Mute Power Light On
- Hold/Held Power Light On

To configure this feature via CommPortal phone configurator:

Preferences-->Power LED

Note: only applicable to T21P_E2 and T23P/G

Added a
new
Submod
ular of
Custom
Settings

Multiple new configurations have been added to configure Custom Settings feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- Custom Settings Protected Enable
 - Custom Settings Synchronized Enable
 - Custom Settings Upload Method
-

To configure this feature via CommPortal phone configurator:
Provisioning-->Custom Settings
Note: only applicable to T21P_E2 and T23P/G

Added a new configuration to the Submodule of Server Address

A new configuration has been added to configure the value (vendor name of the device) of DHCP option 60.

- DHCP Option 60 Value

To configure this feature via CommPortal phone configurator:
Provisioning-->Server Address
Note: only applicable to T21P_E2 and T23P/G

Added some configurations to the Submodule of Diagnostics

Multiple new configurations have been added to configure Diagnostics feature . They are listed below--See their help text in the phone profile editor for a full description of what they do:

- Diagnostics Mode
- Diagnostics Server

To configure this feature via CommPortal phone configurator:
Provisioning-->Diagnostics
Note: only applicable to T21P_E2 and T23P/G

Added a new configuration to the Submodule of IP Setting

A new configuration has been added to configure the IP phone to use manually configured static IPv4 DNS when the Internet (WAN) port type for IPv4 is configured as DHCP.

- Static DNS

To configure this feature via CommPortal phone configurator:
Network Settings-->IP Setting
Note: only applicable to T21P_E2 and T23P/G

Added a new Submodule of PC Port

A new configuration has been added to enable or disable the PC (LAN) port.

- PC Port Active

To configure this feature via CommPortal phone configurator:
Network Settings-->PC Port
Note: only applicable to T21P_E2 and T23P/G

Added a new configuration to the Submodule of Vlan

A new configuration has been added to enable or disable the IP phone to obtain IP address with lower preference of VLAN assignment method or disable VLAN feature when the IP phone cannot obtain IP address with the current VLAN assignment method.

- Switch Or Close VLAN

To configure this feature via CommPortal phone configurator:
Network Settings-->Vlan
Note: only applicable to T21P_E2 and T23P/G

Modified the configuration name on

Modified the configuration name "Packet Interval" as "LLDP Packet Interval"

To configure this feature via CommPortal phone configurator:
Network Settings-->Vlan

the
Submod
ular of
Vlan

Added a
new
valid
value to
the
configur
ation of
WAN
Port Link

A new valid value has been added to the configuration of WAN Port Link feature:

- Full duplex 1000Mbps

To configure this feature via CommPortal phone configurator:
Network Settings-->Port Link-->WAN Port Link
Note: only applicable to T23G

Added a
new
valid
value to
the
configur
ation of
PC Port
Link

A new valid value has been added to the configuration of PC Port Link feature:

- Full duplex 1000Mbps

To configure this feature via CommPortal phone configurator:
Network Settings-->Port Link-->PC Port Link
Note: only applicable to T23G

Added
two valid
values to
the
configur
ation of
802.1x
Mode

Two valid values have been added to the configuration of 802.1x Mode:

- EAP-PEAP/GTC
- EAP-TTLS/EAP-GTC

To configure this feature via CommPortal phone configurator:
Network Settings->802.1x->802.1x Mode
Note: only applicable to T21P_E2 and T23P/G

Added a
new
configur
ation to
the
Submod
ular of
SSL
Certificat
es

A new configuration has been added to enable or disable the IP phone to reserve custom certificates after it is reset to factory defaults.

- Reserve Custom Certificates After Reset

To configure this feature via CommPortal phone configurator:
Security->SSL Certificates
Note: only applicable to T21P_E2 and T23P/G

Added
some
Key
Types to
the
module
of
Sidecar

Multiple soft key actions have been added. They are listed below:

- Park Call
- Paging List
- ACD
- Log Out
- Network Contacts
- History
- Messages List

For more information, refer to
Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide

and
Yealink_SIP_Phones_Integrated_with_Metaswitch_CommPortal_Phone_Applications_User_Guide .

Note: only applicable to T21P_E2 and T23P/G

Added new models to the new version

Added the new models of T21P-E2 and T23P/G to the newly version.

Added a new configuration item to the module of Firmware

For more information please refer to
Yealink_SIP_Phones_Integrated_with_Metaswitch_CommPortal_Phone_Applications_User_Guide and
Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide .

Added a new configuration item to the module of Firmware

A new configuration has been added to configure server type when download the firmware:

- Using Https

Added a new model of User Access Permission under the Provisioning model

To configure this feature via CommPortal phone configurator:
Provisioning-->Firmware

Added a new model of User Access Permission under the Provisioning model

Multiple new configurations have been added to configure the User Access Permission. They are listed below--See their help text in the phone profile editor for a full description of what they do:

- User Access Permission Enable
- Upload Web_Items_Level File_

To configure this feature via CommPortal phone configurator:
Provisioning--> User Access Permission
Note: only applicable to T21P_E2 and T23P/G

Adjusted configuration item

Moved the configuration of Input Password When Perform Factory Reset to the path of : Features-General

Adjusted configuration item

To configure this feature via CommPortal phone configurator:
Features-->General

Added a new model of Call Log under the Features model

A new configuration has been added to save call log.

- Save Call Log

To configure this feature via CommPortal phone configurator:
Features-->Call Log

Adjusted the default configuration item

Adjusted the default value of DTMF model as follow:

- DTMF Type = AUTO or SIP INFO
- DTMF Info Type =DTMF-Relay

Adjusted the default configuration item

To configure this feature via CommPortal phone configurator:
Features-->DTMF
For more information, refer to

Yealink_SIP_Phones_Integrated_with_Metaswitch_Configuring_Guide

Note: only applicable to T21P_E2 and T23P/G