Yealink

Yealink SIP-T2 Series/T19P/T3 Series/T4 Series/VP530 IP Phones XML Browser Developer's Guide

Version 72.1

Dec. 2013

Table of Contents

About This Guide

XML browser simply means that the SIP phones' LCD screen display can be managed by external applications.

This guide shows you how to use XML API to control the LCD screen display of Yealink IP phones as well as its configuration. The XML API is intended to provide you with flexibility in developing applications on the phones while tightly integrating into the phone's telephony capabilities and functions.

This guide applies to Yealink SIP-T28P, SIP-T26P, SIP-T22P, SIP-T21P, SIP-T20P, SIP-T19P, SIP-T38G, SIP-T32G, SIP-46G, SIP-T42G, SIP-T41P and VP530 IP phones running firmware version 70 or later.

Who should use this guide?

This guide is designed specifically to provide development engineers, system administrators, or network engineers with information for developing and deploying customized client services to Yealink IP phones via using the XML browser feature.

This guide is not intended for end users and does not provide user-level information on how to use any specific XML applications.

Before reading this guide, you should be familiar with the following:

- Basic text editors, or full IDE-like Eclipse or Microsoft Visual Studio for creating or writing code.
- General application and software development.
- Adequate planning, creating, and testing resources needed to produce a fully deployable web-based application.
- Yealink IP phones and provisioning methods.
- How to use an XML editor.
- The XML-based schema and syntax.

Summary of Changes

This section describes the changes to this guide for each release and guide version.

Changes for Release 72, Guide Version 72.1

This version is updated to incorporate SIP-T46G, SIP-T42G and SIP-T41P IP phones. Major updates have occurred to the following sections:

- Yealink IP Phone XML Objects on page 9

Changes for Release 71, Guide Version 71.165

Major updates have occurred to the following sections:

- Yealink IP Phone XML Objects on page 9

Changes for Release 71, Guide Version 71.140

Major updates have occurred to the following sections:

- XML display control on Yealink IP phones on page 4
- Yealink IP Phone XML Objects on page 9
- Customizable Soft keys on page 57
- XML Objects Pushed to the Phone on page 61

Changes for Release 71, Guide Version 71.111

Documentations of the newly released SIP-T19P and SIP-T21P IP phones have also been added.

Changes for Release 71, Guide Version 71.110

The following sections are new:

- Configuring the Push XML Server on page 67
- Configuring the Block XML In Calling on page 72

Major updates have occurred to the following sections:

- Yealink IP Phone XML Objects on page 9

XML and Yealink IP Phones

What is XML?

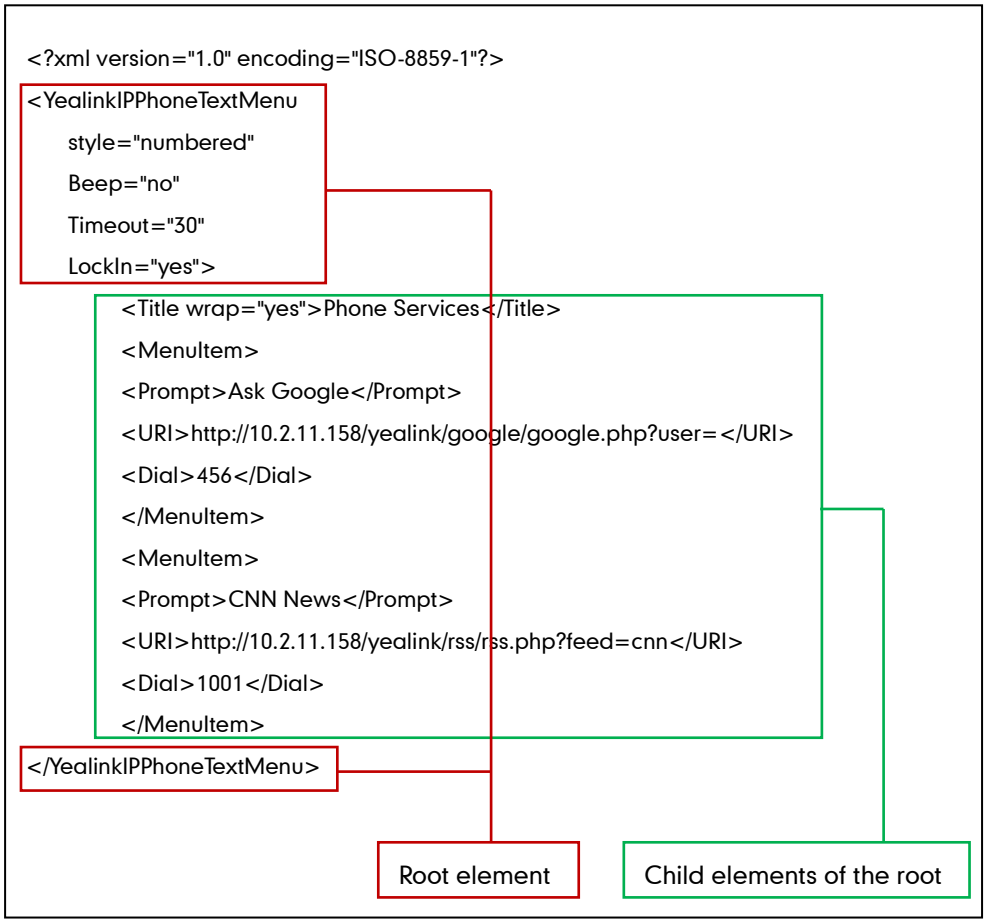
XML stands for eXtensible Markup Language. It is a markup language much like HTML. HTML is designed to display data and to focus on how data looks, while XML is designed to describe data and to focus on what data is.

XML enables SIP phones to serve as output devices for many exciting applications. The XML infrastructure allows the phones to interact with external applications in a flexible and programmable manner.

The following are characteristics of XML:

- XML tags are not predefined. You must define your own tags.
- XML uses an XML schema to describe the data.
- XML with an XML schema is designed to be self-descriptive.
- XML is a W3C Standard Recommendation.

Sample of Basic XML document:



Functionality

The XML browser feature on Yealink IP phones allows users to develop and deploy custom services which meet user functional requirements on the server. Users can customize practical applications, such as weather report, stock information, Google search, news service, etc.

Phone service developers should take it into consideration that the phone is not a web browser so it cannot parse HTML. Although the content is delivered to the phone through HTTP messages using a web server, keep in mind that the content is not HTML. All content comes to the IP phone either as plain text or text packaged in XML objects.

Yealink IP phones support 10 proprietary XML objects, which allow the creation of powerful XML applications.

There are 2 types of XML objects:

UI objects: XML objects are used to control the LCD screen display of IP phones.

Non UI objects: XML objects have no direct impact on the current LCD screen display of IP phones.

The supported objects are:

- TextMenu object (UI)
- TextScreen object (UI)
- InputScreen object (UI)
- Directory object (UI)
- ImageScreen object (UI)
- ImageMenu object (UI)
- FormattedTextScreen object (UI)
- Execute object (Non UI)
- Configuration object (Non UI)
- Status object (Non UI)

Note UI objects are not applicable to SIP-T20P IP phones. ImageMenu object is not applicable to SIP-T38G, SIP-T32G and VP530 IP phones.

How does it work?

Depending on the IP infrastructure, Yealink has supported developing the XML browser capability of the phones using HTTP. Yealink IP phones support two modes for XML browser applications:

- **Phone-initiated**
- **Server-initiated**

Phone initiated application

You can press the predefined XML Browser key to trigger the phone initiated application of XML browser. After you press the key, the IP phone issues an HTTP(s) GET request message to the server, waits for the answer, decodes and displays this response message like any web browser, such as Microsoft Internet Explorer or Firefox, and would do as a web client. For more information on how to configure an XML Browser key, refer to Configuring an XML Browser Key.

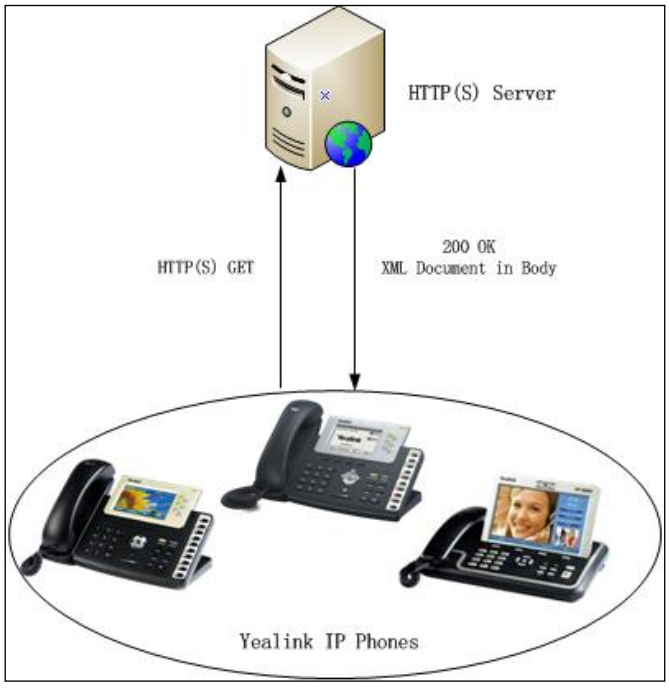


Figure1 Yealink IP phone acting as a client

Server initiated application

The server initiated application would be more frequently used on the network. In this mode, end users do not need to do any configuration and operation.

The server can push an XML object to the phone via an HTTP POST. For more information, refer to XML Objects Pushed to the Phone.

In addition, Yealink IP phones support accepting SIP NOTIFY messages from a SIP proxy server, and act as limited web servers. For more information on how to configure the XML SIP Notify, refer to Configuring the XML SIP Notify.

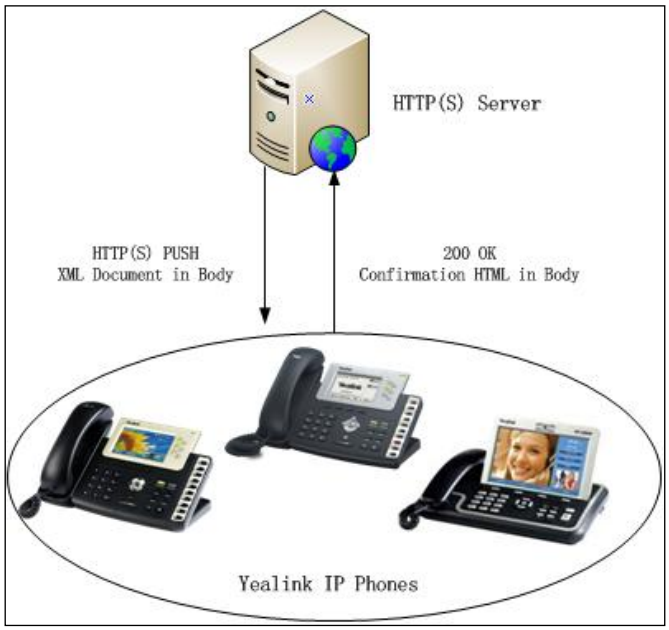


Figure2 Yealink IP phone acting as a server (HTTP(s) post)

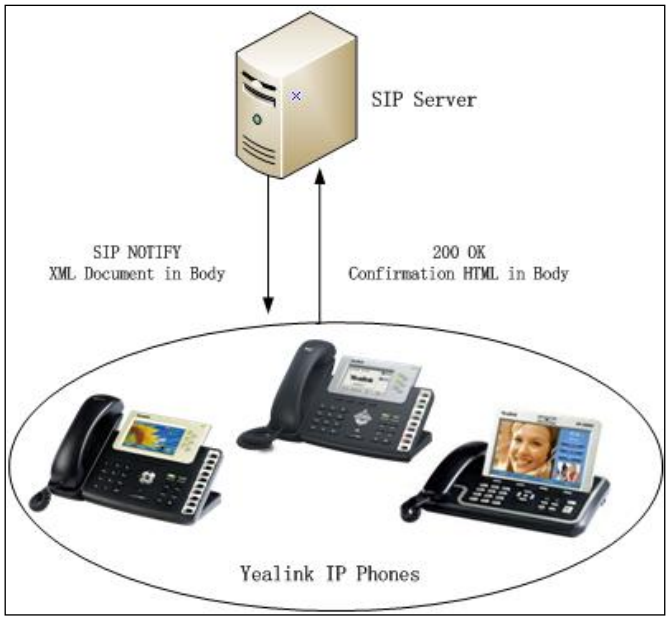


Figure3 Yealink IP phone acting as a server (SIP NOTIFY)

XML display control on Yealink IP phones

This chapter describes the available part of the LCD screen for each phone model of Yealink IP phones as well as the keys that are controlled by the XML objects.

The LCD screen and keys available for XML applications on a Yealink SIP-T28P IP phone are:

- 8 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T26P IP phone are:

- 4 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T22P IP phone are:

- 4 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T21P IP phone are:

- 4 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T19P IP phone are:

- 4 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys

- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T38G IP phone are:

- 8 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T32G IP phone are:

- 6 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, the **X** key can also be interpreted as a "cancel" key, and the **OK** key as a "confirm" key.

The LCD screen and keys available for XML applications on a Yealink SIP-T46G IP phone are:

- 9 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The LCD screen and keys available for XML applications on a Yealink SIP-T42G IP phone are:

- 5 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The LCD screen and keys available for XML applications on a Yealink SIP-T41P IP phone are:

- 5 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The LCD screen and keys available for XML applications on a Yealink VP530 IP video phone are:

- 17 text lines and 1 soft key line for the LCD screen
- The left and right arrow navigation keys
- The up and down arrow navigation keys

The last line of the LCD screen is a command line and will be used to display the labels of the available actions. Depending on the XML object displayed on the phone, and the **OK** key as a "confirm" key.

Yealink IP Phone XML Objects

Creating interactive service applications is relatively easy when you understand the XML objects that are defined for Yealink IP phones and the behavior that each XML object generates.

Regardless of what causes the phone to load an XML page, the phone always behaves appropriately after it loads a page. Appropriate behavior depends only on the type of data delivered in the page.

XML Object Definitions

This section details each proprietary XML object supported by Yealink IP phones.

Note

The size of an XML object cannot exceed 10000 bytes (10 kb).

Per XML specifications, only one XML object is supported in an XML document sent to the phone.

The texts within <!-- --> are considered as comments.

TextMenu Object

The TextMenu object allows users to create a list of menu items on the IP phones. You can use the TextMenu object to customize some functions such as weather report, stock information, new services, etc. You can browse the menu items by linking HTTP requests.

XML description of the TextMenu object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextMenu
        defaultIndex = “integer”
        style = “numbered/none”
        Beep = “yes/no”
        Timeout = “integer”
        cancelAction = “URI”
        LockIn = “yes/no”
        >
        <Title wrap = “yes/no”>Menu Title</Title>
        <MenuItem>
```

```
        <Prompt>First menu item</Prompt>
        <URI>HTTP(s) URL</URI>
        <Dial>Number for dial</Dial >
        <Selection>Selection</Selection>
    </MenuItem>
    <!--Additional menu items may be added (up to 30) -->
    <!--Additional soft key items may be added -->
</YealinkIPPhoneTextMenu>
```

The parameters of the TextMenu object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneTextMenu	mandatory	none	The root element of the TextMenu object.
defaultIndex	optional	Integer	Position of the cursor. If the value is not specified or exceeds the number of menu items, the cursor will position on the first menu item. Default value is 1.
style	optional	"numbered" "none"	**numbered** (default)**:** Add a digit before each menu item for index. **none:** No sign before each menu item.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
Timeout	optional	"integer" Unit: second	If there is no operation at a fixed interval on the phone, the phone will automatically exit the TextMenu interface. If it is set to 0, the phone will not exit the TextMenu interface until pressing the "Exit" soft key. Default value is 45.
cancelAction	optional	URI	Define the URI to be called when the user cancels the XML object.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default

Parameter	Type	Value	Description
			value is “no”.
Title	mandatory	string	The title of the text menu.
wrap	optional	“yes” “no”	Whether to display the title of the menu in multi-lines when the content of the title is more than one line. Select “yes” to display in multi-lines, and “no” for one line. Default value is “yes”.
MenuItem	mandatory	none	The element of the menu item. (Up to 30 instances, minimum is 1)
Prompt	mandatory	string	The label of the menu item.
URI	mandatory	URI	URI to be used if the user presses the “Select” soft key with the cursor on this menu item.
Dial	optional	Phone number	Define what number will be dialed when an off-hook action is performed or if the “Dial” soft key is pressed.
Selection	optional	string	If “URI” is set to an HTTP URL, the phone will send a request with "selection= xxx" when the user presses the “Select” soft key. (e.g., URI: http://10.1.0.105/menu1.xml? Selection: 0&menu_pos=1 The phone will send a request “http://10.1.0.105/menu1.xml?&selection=0&menu_pos=1” when the user presses the “Select” soft key.)
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no soft key defined in the TextMenu object, the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T3xG/T4X IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
4	Select	SoftKey: Select

For VP530 IP phones:

SoftKey Index	Label	URI
1	Select	SoftKey: Select
4	Exit	SoftKey: Exit

The function keys are listed in the following table:

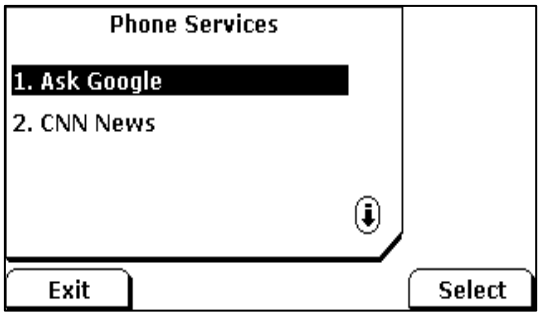
Key Name	Statement	Description
Up/Down	Up and down keys	For SIP-T2xP/T19P/T42G/T41P: Move the cursor up and down. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is moving the cursor up and down. If the value of the LockIn is "yes", there will be no response.
Digitkey	Digit keys 1~9	For SIP-T2xP/T19P/T42G/T41P: Move the cursor to a menu item. If you press the digit that exceeds the maximum of the menu items, the phone will be no response. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of the digit key is moving the cursor to a menu item. If you press the digit that exceeds the maximum of the menu items, the phone will be no response. If the value of the LockIn is "yes", there will be no response.
Select	Soft key, URI="SoftKey: Select"	Dial out the URI in the menu item.
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.

Key Name	Statement	Description
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If there is a number contained in the Dial tag and the value of the LockIn is "no", the phone will dial out the number. If no number contained in the Dial tag or the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is the same as that of "Select". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is the same as that of "Select". If the value of the LockIn is "yes", there will be no response.

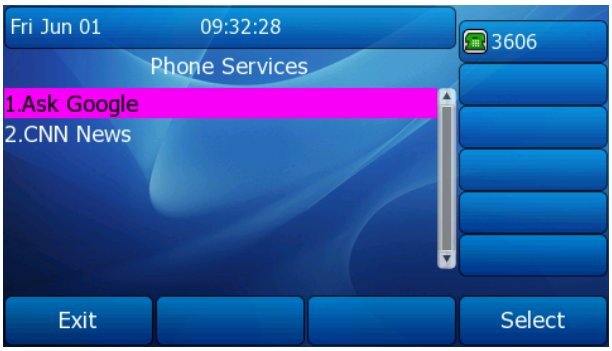
An example of the TextMenu object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextMenu
    style="numbered"
    Beep="no"
    Timeout="30"
    LockIn="yes">
    <Title wrap="yes">Phone Services</Title>
    <MenuItem>
    <Prompt>Ask Google</Prompt>
    <URI>http://10.2.11.158/yealink/google/google.php?user=</URI>
    <Dial>456</Dial>
    </MenuItem>
    <MenuItem>
    <Prompt>CNN News</Prompt>
    <URI>http://10.2.11.158/yealink/rss/rss.php?feed=cnn</URI>
    <Dial>1001</Dial>
    </MenuItem>
</YealinkIPPhoneTextMenu>
```

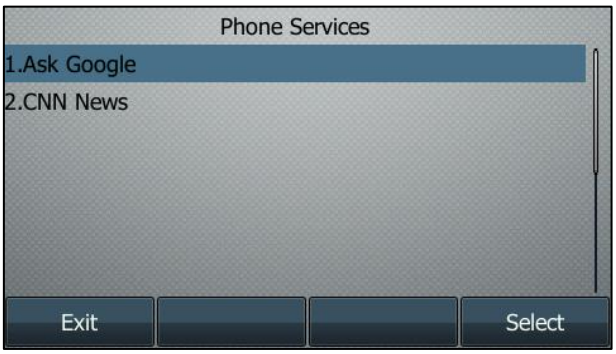
The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:



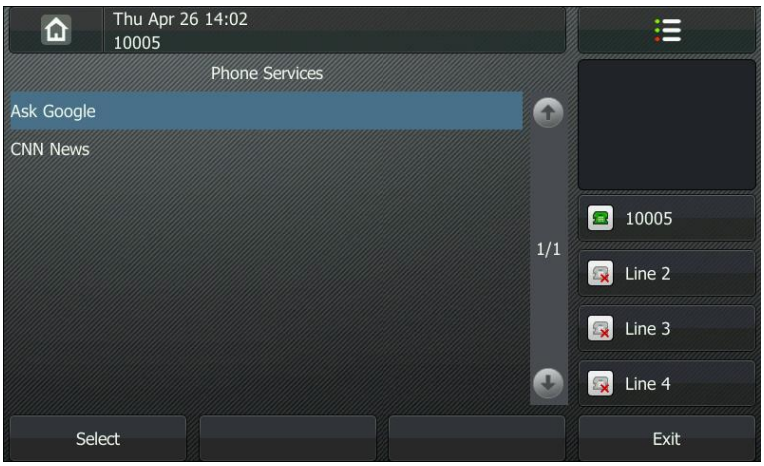
The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:



The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:



The screenshot of the VP530 IP video phone user interface for reference is shown as below:



TextScreen Object

The TextScreen object allows users to display some texts on the IP phones.

XML description of the TextScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextScreen
        Beep = "yes/no"
        doneAction = "URI"
        Timeout = "integer"
        cancelAction = "URI"
        LockIn = "yes/no"
        >
        <Title wrap = "yes/no">Text Title</Title >
        <Text>The screen text goes here</Text>
        <!--Additional soft key items may be added -->
</YealinkIPPhoneTextScreen >
```

The parameters of the TextScreen object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneTextScreen	mandatory	none	The root element of the TextScreen object.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".

Parameter	Type	Value	Description
doneAction	optional	URI	Define the URI to be called when the user presses the "OK" key.
Timeout	optional	"integer" Unit: second	If there is no operation at a fixed interval on the phone, the phone will automatically exit the TextScreen interface. If it is set to 0, the phone will not exit the TextScreen interface until pressing the "Exit" soft key. Default value is 45.
cancelAction	optional	URI	Define the URI to be called when the user cancels the XML object.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default value is "no".
Title	mandatory	string	The title of the screen text.
wrap	optional	"yes" "no"	Whether to display the title in multi-lines when the content of the title is more than one line. Select "yes" display in multi-lines, and "no" for one line. Default value is "yes".
Text	mandatory	string	The content of the screen text. (Text length must be within 2000B)
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no soft key defined in the TextScreen object, the LCD screen displays the following default soft key:

For SIP-T2xP/T19P/T3xG/T4X IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit

For VP530 IP phones:

SoftKey Index	Label	URI
4	Exit	SoftKey: Exit

The function keys are listed in the following table:

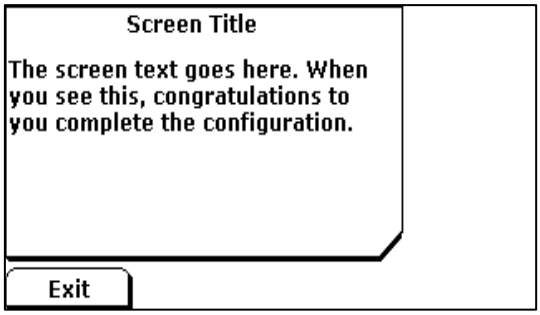
Key Name	Statement	Description
Up/Down	Up and down keys	For SIP-T2xP/T19P/T42G/T41P: See the content of text tips by pressing up and down. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is seeing the content of text tips. If the value of the LockIn is "yes", there will be no response.
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If the value of the LockIn is "no", the phone will enter into pre-dial interface. If the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	The function of "X" key is returning to the idle interface.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is the same as that of "doneAction". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is the same as that of "doneAction". If the value of the LockIn is "yes", there will be no response.

An example of the TextScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextScreen
    doneAction="http://10.2.11.158/ cancel.php"
    Timeout="15"
    LockIn="no"
    Beep="no"
    >
    <Title wrap="yes">Screen Title </Title>
    <Text>The screen text goes here. When you see this, congratulations to you complete
```

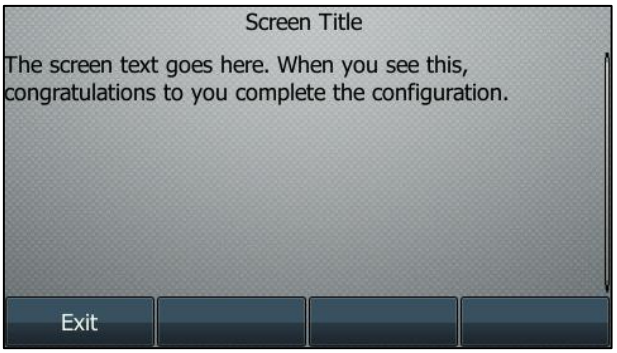
```
the configuration.</Text>
</YealinkIPPhoneTextScreen>
```

The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:

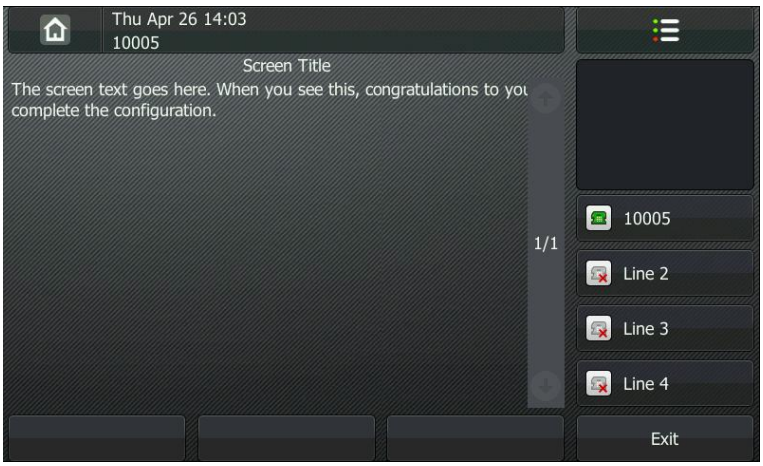


The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:

The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:



The screenshot of the VP530 IP video phone user interface for reference is shown as below:



InputScreen Object

The InputScreen object allows users to create a screen capable of gathering user input. It constructs and displays an input form, which prompts the users to input content, then sends the input content to the target URL. You can use InputScreen object for user login or saving some information to server. You can define the content and format of the input content.

XML description of the InputScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneInputScreen
      type = “IP/string/number/timeUS/timeInt/dateUS/dateInt”
      Beep = “yes/no”
      password = “yes/no”
      Timeout = “integer”
      LockIn = “yes/no”
      inputLanguage = “English”
      cancelAction= “URL”
      displayMode = “normal/condensed”
      defaultIndex = “integer”
      >
      <Title wrap = “yes/no”>Title string</Title>
      <URL>Target receiving the input</URL>
      <InputField
      type = “IP/string/number/timeUS/timeInt/dateUS/dateInt/empty”
      password = “yes/no”
```

```
        editable = "yes/no"
        >
        <Prompt>Guidance for the input</Prompt>
        <URL>Target receiving the input</URL>
        <Parameter> parameter name add to URL</Parameter>
        <Selection>Selection</Selection>
        <Default>Default Value</Default>
        </InputField>
        <!--Additional input field Items may be added -->
        <!--Additional soft key items may be added -->
</YealinkIPPhoneInputScreen >
```

The parameters of the InputScreen object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneInputScreen	mandatory	none	The root element of the InputScreen object.
Type	mandatory	"IP" "string" "number" "timeUS" "timeInt" "dateUS" "dateInt"	Data input options: 1. IP 2. string(default) 3. number 4. timeUS, 12hour format **Format:** HH:MM:SS AM/PM HH:1-12, MM:0-59, SS:0-59 AM/PM stand for the forenoon/afternoon. **Example:** 02:00:23 AM 12:59:00 PM 5. timeInt, 24 hour format **Format:** HH:MM:SS HH:0-23, MM:0-59, SS:0-59 **Example:** 23:25:00 6. dateUS **Format:**

Parameter	Type	Value	Description
			MM/DD/YYYY MM:1-12,DD:1-31,YYYY:0000-9999 **Example:** 12/31/2009 7. dateInt **Format:** DD/MM/YYYY DD:1-31,MM:1-12,YYYY:0000-9999 **Example:** 31/01/2010
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
Password	optional	"yes" "no"	Whether to mask the input by "*" characters. Default value is "no".
Timeout	optional	"integer" Unit: second	If there is no operation at a fixed interval on the phone, the phone will automatically exit the InputScreen interface. If it is set to 0, the phone will not exit the InputScreen interface until pressing the "Exit" soft key. Default value is 45.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default value is "no".
InputLanguage	optional	"English"	The language of user input. Default value is English.
cancelAction	optional	URI	Define the URI to be called when the user cancels the XML object.
displayMode	optional	"normal"	**normal** (default)**:** Display the

Parameter	Type	Value	Description
		"condensed"	prompt and input box in two lines. **condensed:** Display the prompt and input box in one line.
defaultIndex	optional	integer	Position of the cursor. If the value is not specified or exceeds the number of input boxes, the cursor is positioned on the first input box. Default value is 1.
Title	mandatory	string	The title of the screen text.
wrap	optional	"yes" "no"	Whether to display the title in multi-lines when the content of the title is more than one line. Select "yes" display in multi-lines, and "no" for one line. Default value is "yes".
URL	mandatory	URL	Send the content to the URL when the user submits his/her input.
InputField	optional	none	Set several input boxes. (Value ranges from 1 to 6.)
editable	optional	"yes" "no"	Whether to allow users to input something. Default value is "yes". Users can not input anything if it is set to "no". Applicable scenario: only allow some users to login.
Prompt	optional	string	The prompt of user input.
Parameter	mandatory	string	Name of parameter to be added after the URL. (e.g., http://10.1.0.105/menu1.xml ? parameter)
Selection	optional	string	If "URI" is set to an HTTP URL, the phone will send a request with "selection= xxx" when

Parameter	Type	Value	Description
			the user presses the "Select" soft key. (e.g., URI: http://10.1.0.105/menu1.xml?Selection: 0&menu_pos=1 The phone will send a request "http://10.1.0.105/menu1.xml?&selection=0&menu_pos=1" when the user presses the "Select" soft key.)
Default	optional	string	Default value to be displayed in input field.
SoftKey	optional	string	When the cursor moves to the input box, the soft keys displayed will change accordingly. (e.g., add the input mode.) Refer to Customizable Soft keys for more information.

Note The InputField parameter in the XML file is optional. You can use this parameter to customize more input fields on the IP phone.

If there is no soft key defined in the InputScreen object, and the Type for input box is "IP", the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T42G/T41P/VP530 IP phones:

SoftKey Index	Label	URI
1	Submit	SoftKey: Submit
2	Dot	SoftKey: Dot
3	BackSpace	SoftKey: BackSpace
4	Exit	SoftKey: Exit

For SIP-T3xG/T46G IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
2	Dot	SoftKey: Dot

SoftKey Index	Label	URI
3	BackSpace	SoftKey: BackSpace
4	Submit	SoftKey: Submit

If there is no soft key defined in the InputScreen object, and the Type for input box is "timeUS", "timeInt", "dateUS" or "dateInt", the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T42G/T41P/VP530 IP phones:

SoftKey Index	Label	URI
1	Submit	SoftKey: Submit
2	2aB	SoftKey: ChangeMode
3	BackSpace	SoftKey: BackSpace
4	Exit	SoftKey: Exit

For SIP-T3xG/T46G IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
2	2aB	SoftKey: ChangeMode
3	BackSpace	SoftKey: BackSpace
4	Submit	SoftKey: Submit

If there is no soft key defined in the InputScreen object, and the Type for input box is "number", the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T42G/T41P/VP530 IP phones:

SoftKey Index	Label	URI
1	Submit	SoftKey: Submit
2	BackSpace	SoftKey: BackSpace
4	Exit	SoftKey: Exit

For SIP-T3xG/T46G IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
2	BackSpace	SoftKey: BackSpace
4	Submit	SoftKey: Submit

If there is no soft key defined in the InputScreen object, and the Type for input box is "string", the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T42G/T41P/VP530 IP phones:

SoftKey Index	Label	URI
1	Submit	SoftKey: Submit
2	2aB	SoftKey: ChangeMode
3	BackSpace	SoftKey: BackSpace
4	Dot	SoftKey: Dot
5	NextSpace	SoftKey: NextSpace
6	Exit	SoftKey: Exit

For SIP-T3xG/T46G IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
2	2aB	SoftKey: ChangeMode
3	BackSpace	SoftKey: BackSpace
4	Dot	SoftKey: Dot
5	NextSpace	SoftKey: NextSpace
6	Submit	SoftKey: Submit

The function keys are listed in the following table:

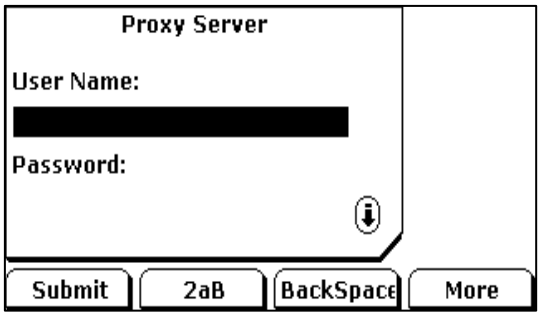
Key Name	Statement	Description
Up/Down	Up and down keys	For SIP-T2xP/T19P/T42G/T41P: Move the cursor up and down. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is moving the cursor up and down. If the value of the LockIn is "yes", there will be no response.
Left/Right	Left and right keys	For SIP-T2xP/T19P/T42G/T41P: Move the cursor left and right. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is moving the cursor left and right. If the value of the LockIn is "yes", there will be no response.
Keypad	Digit keys 0~9, *	For SIP-T2xP/T19P/T42G/T41P: If "editable" of

Key Name	Statement	Description
	and #	the cursor input item is set to "yes", then input character; otherwise no response. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no" and the value of the "editable" is "yes", then input character; otherwise no response.
Backspace	Soft key, URI= "SoftKey: Backspace"	Delete the character before the cursor in the input box.
Dot	Soft key, URI= "SoftKey: Dot"	Insert a "." in the input box at the cursor position.
Submit	Soft key, URI= "SoftKey: Submit"	Execute the command comprised of the URI and input content.
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
2aB	Soft key, URI= "SoftKey: ChangeMode"	Input mode switch, i.e. switch the input mode among "2aB", "ABC", "abc" or "123".
NextSpace	Soft key, URI= "SoftKey: NextSpace"	Insert a space in the input box at the cursor position. This soft key is not effective for SIP-T2xP/T19P IP phones.
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If the value of the LockIn is "no", the phone will enter into pre-dial interface. If the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is the same as that of "Submit". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is the same as that of "Submit". If the value of the LockIn is "yes", there will be no response.

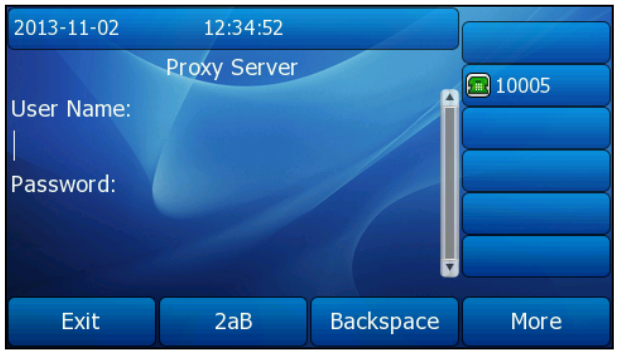
An example of the InputScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneInputScreen
        type="string"
        Beep="yes"
        Timeout="15"
        LockIn="yes">
    <Title wrap="yes">Proxy Server</Title>
    <URL>http://10.3.5.5/</URL>
    <InputField>
      <Prompt>User Name:</Prompt>
      <Parameter>proxy</Parameter>
      <Default></Default>
    </InputField>
    <InputField>
      <Prompt>Password:</Prompt>
      <Parameter>proxy</Parameter>
      <Default></Default>
    </InputField>
</YealinkIPPhoneInputScreen>
```

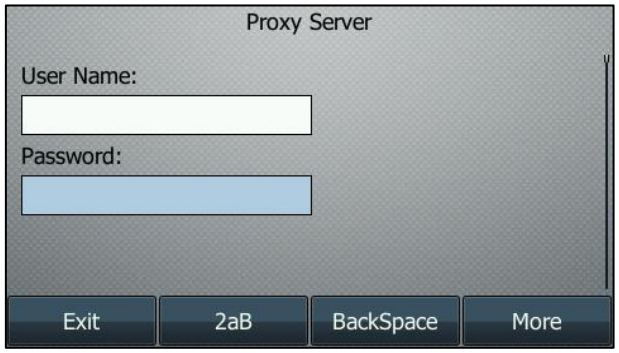
The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:



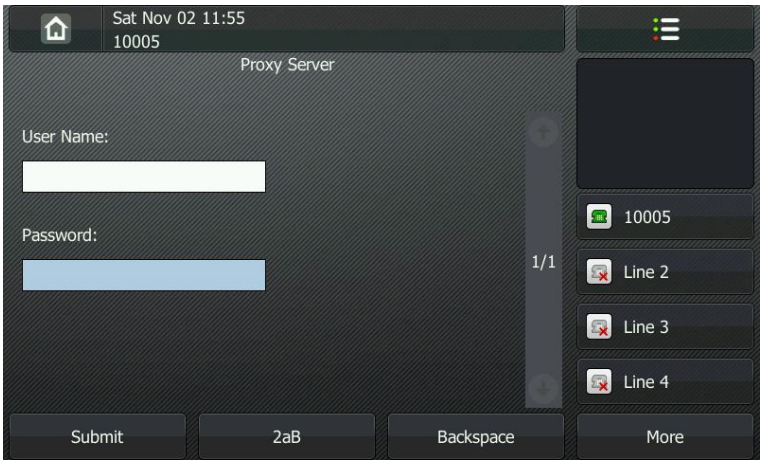
The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:



The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:



The screenshot of the VP530 IP video phone user interface for reference is shown as below:



You can press the **More** soft key to find more soft keys.

Directory Object

The Directory object allows users to browse an online directory in real time. The Directory object is just like a remote phonebook. It displays an automatically numbered list of contacts. After selecting a contact with the cursor, the contact can be dialed directly by pressing the "Dial" soft key, picking up the handset or pressing the

line key.

XML description of the Directory object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneDirectory
        defaultIndex = "integer"
        Next = "URI"
        Previous = "URI"
        Beep = "yes/no"
        cancelAction="URI"
        Timeout = "integer"
        LockIn = "yes/no">
        <Title wrap = "yes/no">Directory Title</Title>
        <MenuItem>
            <Prompt>Contact Name</Prompt>
            <URI>number</URI>
        </MenuItem>
        <!--Additional Menu Items may be added -->
        <!--Additional soft key items may be added -->
</YealinkIPPhoneDirectory>
```

The parameters of the Directory object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhone Directory	mandatory	none	The root element of the Directory object.
defaultIndex	optional	Integer	Position of the cursor. If the value is not specified or exceeds the number of menu items, the cursor will position on the first menu item. Default value is 1.
Next	optional	URI	The URI corresponding to "Next" soft key.
Previous	optional	URI	The URI corresponding to "Previous" soft key.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
cancelAction	optional	URI	Define the URI to be called when the

Parameter	Type	Value	Description
			user cancels the XML object.
Timeout	optional	"integer" Unit: second	If there is no operation at a fixed interval on the phone, the phone will automatically exit the Directory interface. If it is set to 0, the phone will not exit the Directory interface until pressing the "Exit" soft key. Default value is 45.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default value is "no".
Title	mandatory	string	The title of the address book.
wrap	optional	"yes" "no"	Whether to display the title in multi-lines when the content of the title is more than one line. Select "yes" display in multi-lines, and "no" for one line. Default value is "yes".
MenuItem	mandatory	none	Address item. (Value ranges from 1 to 15.)
Prompt	mandatory	string	The prompt of address item.
URI	mandatory	URI	The operation of address item, such as the telephone number.
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no soft key defined in the Directory object, the LCD screen displays the following default soft keys:

For SIP-T2xP/T19P/T4X/VP530 IP phones:

SoftKey Index	Label	URI
1	Dial	SoftKey: Dial For SIP-T46G: This soft key is called Send.
2	Previous	The URI specified by "Previous" of the Directory Object, "SoftKey: Previous"
3	Next	The URI specified by "Next" of the Directory Object, "SoftKey: Next"

SoftKey Index	Label	URI
4	Exit	SoftKey: Exit

For SIP-3xG IP phones:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit
2	Previous	The URI specified by "Previous" of the Directory Object, "SoftKey: Previous"
3	Next	The URI specified by "Next" of the Directory Object, "SoftKey: Next"
4	Dial	SoftKey: Dial

The function keys are listed in the following table:

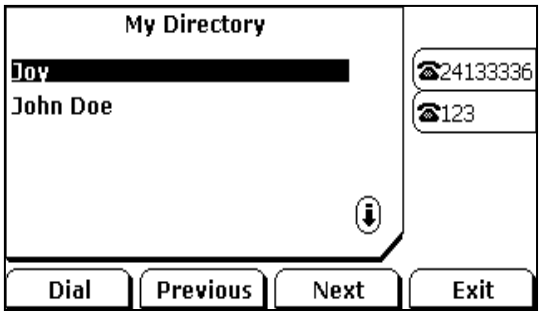
Key Name	Statement	Description
Up/Down	Up and down keys	For SIP-T2xP/T19P/T42G/T41P: Move the cursor up and down. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is moving the cursor up and down. If the value of the LockIn is "yes", there will be no response.
Digitkey	Digit keys 1~9	If the value of the LockIn is "no", the function of the digit key is moving the cursor to a menu item. If you press the digit that exceeds the maximum of the menu items, the phone will be no response. If the value of the LockIn is "yes", there will be no response. This function key is not effective for SIP-T2xP/T19P IP phones.
Dial	Soft key, URI="SoftKey: Dial"	Dial out the number of the highlighted contact. For SIP-T46G IP phones, this soft key is called Send.
Previous	Soft key, URI="SoftKey: Previous"	Dial out the URI of "Previous" command.
Next	Soft key, URI="SoftKey: Next"	Dial out the URI of "Next" command.

Key Name	Statement	Description
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If the value of the LockIn is "no", the phone will dial out the number of the highlighted contact. If the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is the same as that of "Dial". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is the same as that of "Send". If the value of the LockIn is "yes", there will be no response.

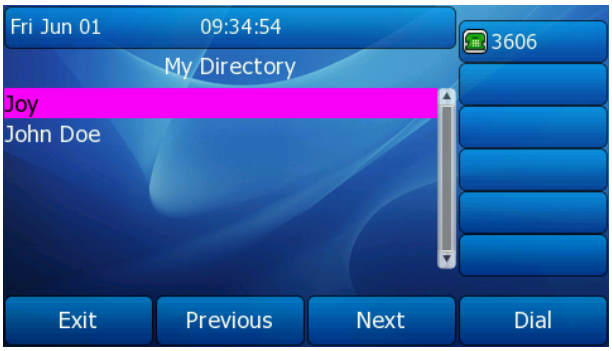
An example of the Directory object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneDirectory
    Next="http://myserver.com/more.php"
    Previous="http://myserver.com/back.xml"
    LockIn="yes"
    >
    <Title>My Directory</Title>
    <MenuItem>
    <Prompt>Joy</Prompt>
    <URI>10.2.11.163</URI>
    </MenuItem>
    <MenuItem>
    <Prompt>John Doe</Prompt>
    <URI>1003</URI>
    </MenuItem>
</YealinkIPPhoneDirectory>
```

The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:

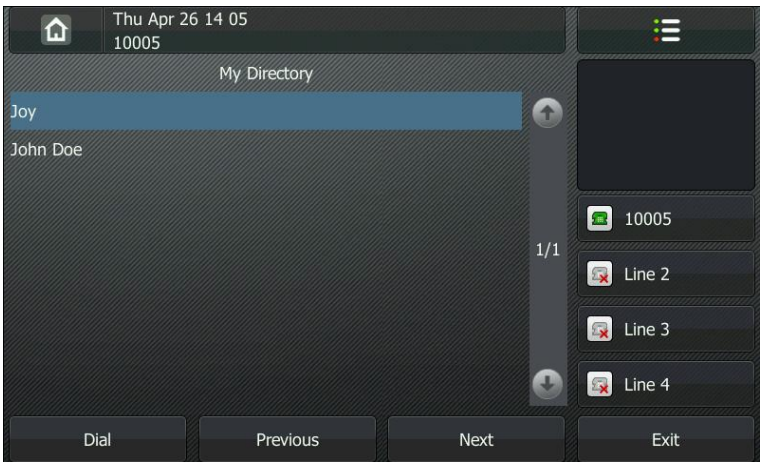


The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:



The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:

The screenshot of the VP530 IP video phone user interface for reference is shown as below:



Status Object

The Status object allows users to display a status message on a single designated line on the phone's idle screen when XML information is pushed from the servers. The Status object can remind users of received messages, missed calls, news, notify, etc.

XML description of the Status object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneStatus
    Beep = "yes/no"
    SessionID="String"
    Timeout = "timeout"
     <Message
          Account = "user@server URI"
          Icon= "icon index"
          Size="normal/small/double/large"
          Align="center/left/right"
          Color="white/black/red/green/brown/blue/magenta/cyan/lightgray
          /darkgray/lightred/lightgreen/yellow/lightblue/lightmagenta/lightcyan"
     >Message</Message>
     <!--Additional Message Items may be added -->
</YealinkIPPhoneStatus>
```

The parameters of the Status object are listed in the following table:

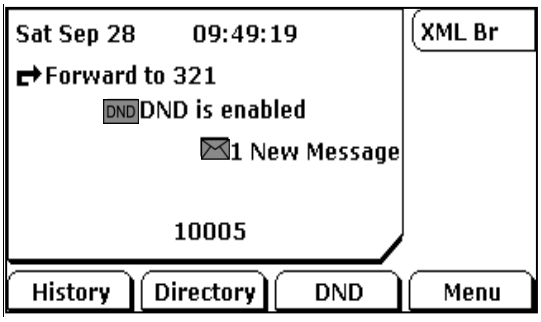
Parameter	Type	Value	Description
YealinkIPPhoneStatus	mandatory	none	The root element of the Status object.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
SessionID	optional	string	Session ID is used to mark different Status Objects.
Timeout	optional	"integer" Unit: second	The time for status information display. The phone will automatically exit the status interface at a fixed interval on the phone. Default value is 30s. If it is set to 0, the phone will not exit the status interface until the server sends a cancel request or the phone reboots.
Message	optional	string	Message to be displayed or empty to reset the message. (Up to 10 instances.)
Account	optional	string	Specify the registered account for the status.
Size	optional	"normal" "small" "double" "large"	Font size of the text. "small": 12 pt "normal": 18 pt "double": 24 pt "large": 28 pt Default value is "normal". For SIP-T2xP/T19P/T42G/T41P: This parameter will be ignored.
Align	optional	"center" "left" "right"	Alignment of the message display. Default value is "left".
Color	optional	"white" "black" "red"	Color of the line. For SIP-T2xP/T19P/T42G/T41P: This parameter will be ignored

Parameter	Type	Value	Description
		"green" "brown" "blue" "magenta" "cyan" "lightgray" "darkgray" "lightred" "lightgreen" "yellow" "lightblue" "lightmagenta" "lightcyan"	and the text displayed is always black. For SIP-T3xG/VP530: Default value is "white". For SIP-T46G: Default value is "black".
Icon	optional	Forward DND Message	Icon used to index status message.

An example of the Status object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneStatus
    Beep="yes"
    SessionID="125"
    Timeout="600"
    <Message Size="large" Align="left" Color="red" Account="10005@10.2.1.199" Icon="Forward">Forward to 321</Message>
    <Message Size="normal" Align="center" Color="black" Account="10005@10.2.1.199" Icon="DND">DND is enabled</Message>
    <Message Size="small" Align="right" Color="green" Account="10005@10.2.1.199" Icon="Message">1 New Message</Message>
</YealinkIPPhoneStatus>
```

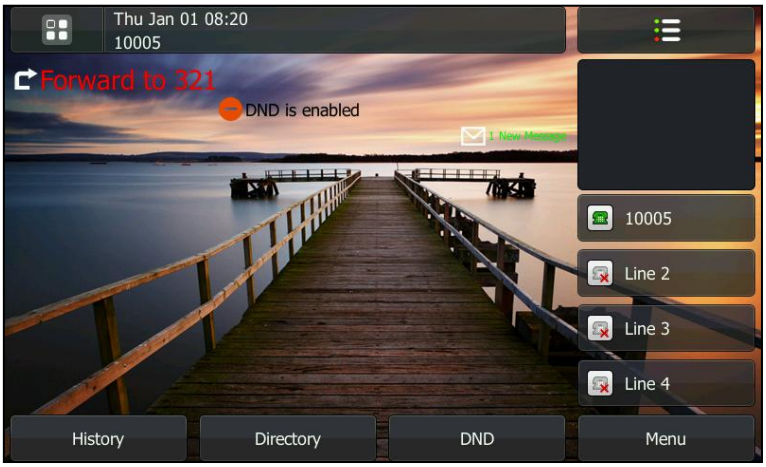
The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:



The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:

The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:

The screenshot of the VP530 IP video phone user interface for reference is shown as below:



Execute Object

The Execute object allows an external application to ask the phone to execute a sequence of local commands using URIs. The phone will execute each specified command in order.

XML description of the Execute object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneExecute
        Beep = "yes/no">
        <ExecuteItem URI = "URI"/>
        <!--Additional Execute Items may be added -->
</YealinkIPPhoneExecute>
```

The parameters of the Execute object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhone Execute	mandatory	none	The root element of the Execute object.
Beep	optional	"yes" "no"	Whether to play a tone when beginning to execute the commands. Default value is "yes".
ExecuteItem URI	mandatory	URI	The operation of command item, such as call user, data download from server according to the URL, etc. Valid values are listed in the following

Parameter	Type	Value	Description
			tables.

Commonly used commands:

Name	URI Value	Function
Supported URI	http(s)://myserver.com/TextMenu.xml	Execute "TextMenu.xml" from the root directory on the server "myserver.com".
	Dial:XXXXX	Dial out the number
	Led:XXXX=on/off/slowflash/fastflash	Control the LEDs according to the commands
	Key:XXXX	Execute XXXX key operation
	Wav.Play:[tftp|http://[username[:password]@]<host>[:port][/<Path>]/<file>	Play the wav file
	Wav.Stop:[tftp|http://[username[:password]@]<host>[:port][/<Path>]/<file>	Stop playing the .wav file
Phone Reset	Command: Reset	Reset to the factory
Phone Fast Reboot	Command: Reboot	Phone reboot
Clear	Command: ClearCallersList	Clear local call record list
	Command: ClearDirectory	Clear contact list
	Command: ClearRedialList	Clear placed calls list
Do nothing	none	none

Specification of "XXXX" in "Led：XXXX=on/off/slowflash/fastflash":

Setting Method	Indicator	Example
EXP-%d-%d2-%s	**%d**: the "%d"th expansion module, value range: 1~6; **%d2**: the "%d"th key of expansion module, value range: 1~40; **%s:** the light color, values: "RED", "GREEN".	"Led：EXP-2-3-RED=on": Lighten the indicator of the third key of the second expansion module to be red.
LINE%d	**%d**: It represents the serial	"Led:LINE3=on": Lighten

Setting Method	Indicator	Example
	number of corresponding line key, value range: 1~27 (for SIP-T46G), 1~15 (for SIP-T42G/T41P), 1~6 (for SIP-T28P/T38G), 1~4 (for VP530), 1~3 (For SIP-T26P/T22P/T32G), 1~2 (For SIP-T21P/T20P) and 1 (for SIP-T19P).	the line key3 LED.
MEMO%d_%s	**%d**: It represents the memory key's serial number, value range: 1~18 (VP530) and 1~10 (for SIP-T28P/T26P/T38G). **%s**: The light color, values : "RED", "GREEN"	"Led: MEMO5_GREEN=on": Lighten the memory key5 LED to be green.
SMS	Message indicator LED	
HEADSET	Headset switch indicator LED	
HANDFREE	Handfree indicator LED (only for SIP-T4X)	
POWER	Power indicator LED	

Specification of "XXXX" in "Key: XXXX":

Setting Method	Indicator	Example
EXP-%d-%d2	**%d**: the "%d"th expansion module, value range: 1~6 **%d2**: the "%d"th key of expansion module, value range: 1~40	"Key: EXP-2-3": It means the third key of the second expansion module.
OFF_HOOK	Off hook	
ON_HOOK	On hook	
OK	Ok key	
CANCEL	X key	
UP	Up key	
DOWN	Down key	
LEFT	Left key	
RIGHT	Right key	
INCREASE	Increase volume	

Setting Method	Indicator	Example
DECREASE	Decrease volume	
REDIAL	Redial key	
HOLD	Hold the line	
MUTE	Mute	
CONFERENCE	Conference	
TRANSFER	Transfer	
SMS	Message key	
HEADSET	Headset switch key	
HANDFREE	Handfree key	
LINE%d	Line key, 1~27 (for SIP-T46G), 1~15 (for SIP-T42G/T41P), 1~6 (for SIP-T28P/T38G), 1~4 (for VP530), 1~3 (For SIP-T26P/T22P/T32G), 1~2 (For SIP-T21P/T20P) and 1 (for SIP-T19P).	
HOTKEY%d	Soft key, value 1~4	
MEMORY%d	Memory key, 1~18 (VP530) and 1~10 (for SIP-T28P/T26P/T38G).	
KEY_%d	Number key, value 0~9	
STAR	'*' key	
POUND	'#' key	

An example of the Execute object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneExecute Beep="yes">
<ExecuteItem URI="Key:OK"/>
</YealinkIPPhoneExecute>
```

The IP phone enters into the phone status interface.

Configuration Object

The Configuration object allows an external application to modify configuration of the IP phones dynamically. The configuration parameters are ones that are used in configuration files (Common.cfg and Mac.cfg) detailed in *Yealink_SIP-T2*

Series_T19P_T4_Series_IP_Phones_Auto_Provisioning_Guide.

XML description of the Configuration object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneConfiguration
        Beep = "yes/no"
        >
        <Item>parameter= value</Item>
        <!--Additional Configuration Items may be added (up to 1300)-->
</YealinkIPPhoneConfiguration>
```

The parameters of the Configuration object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneConfiguration	mandatory	none	The root element of the Configuration object.
Beep	optional	"yes" "no"	Whether to play a tone when applying the configuration. Default value is "yes".
Item	mandatory	none	Configuration item.

An example of the Configuration object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneConfiguration
       Beep="yes"
       >
        <Item>account.2.enable = 1</Item>
        <Item>account.2.label = 7002</Item>
        <Item>account.2.display_name = 7002 </Item>
        <Item>account.2.user_name = 7002</Item>
        <Item>account.2.auth_name = 7002</Item>
        <Item>account.2.sip_server_host = 10.2.1.199</Item>
</YealinkIPPhoneConfiguration>
```

The IP phone registers account 7002 on line 2.

FormattedTextScreen Object

The FormattedTextScreen object allows IP phones to display formatted (alignment, size, color and scrolling) texts on the LCD screen.

This text is divided into the following 3 distinct blocks, any of which can be empty:

- The Header block is displayed at the top of the LCD screen and contains static text. This block can display 2-line texts at most.
- The Scroll block is displayed under the Header block. How many lines of text can be displayed on this block depends on the size of the LCD screen.
- The Footer block is displayed at the bottom of the LCD screen with static text. This block can display one line only.

XML description of the FormattedTextScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneFormattedTextScreen
      doneAction = “URI”
      Beep = “yes/no”
      Timeout = “integer”
      LockIn = “yes/no”>
      <Line
         Size="normal/small/double/large"
         Align="center/left/right"
         Color="white/black/red/green/brown/blue/magenta/cyan/lightgray/darkgray
         /lightred/lightgreen/yellow/lightblue/lightmagenta/lightcyan"
         >Header Line</Line>
      <!-Additional Line may be added- ->
      <Scroll>
      <Line
          Size="normal/small/double/large"
          Align="center/left/right"
          Color="white/black/red/green/brown/blue/magenta/cyan/lightgray
          /darkgray/lightred/lightgreen/yellow/lightblue/lightmagenta/lightcyan"
          >Scroll Line</Line>
      <!-Additional Line may be added- ->
      </Scroll>
      <Line
          Size="normal/small/double/large"
          Align="center/left/right"
          Color="white/black/red/green/brown/blue/magenta/cyan/lightgray/darkgray
          /lightred/lightgreen/yellow/lightblue/lightmagenta/lightcyan"
          >Footer Line</Line>
```

```
    <!--Additional Line may be added-->
<!--Additional Softkey Items may be added (softkey phones) -->
</YealinkIPPhoneFormattedTextScreen >
```

The parameters of the FormattedTextScreen object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneFormattedTextScreen	mandatory	none	The root element of the FormattedTextScreen object.
Beep	optional	"yes" "no"	Whether to play a tone when entering into the FormattedTextScreen object. Default value is "yes".
doneAction	optional	URI	Define the URI to be called when the user presses the "OK" key.
Timeout	optional	"integer" Unit: sec	If there is no operation at a fixed interval on the phone, the phone will automatically exit the FormattedTextScreen interface. If it is set to 0, the phone will not exit the FormattedTextScreen interface until pressing the "Exit" soft key. Default value is 45.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default value is "no".
Line	mandatory	string	Text to be displayed on the line. If the length of the text is too long to be displayed on the LCD screen, the line will be cropped to the last word. The Header block can

Parameter	Type	Value	Description
			display two lines at most, and the Footer block can display only one line.
Size	optional	"normal" "small" "double" "large"	Font size of the text. "small": 12 pt "normal": 18 pt "double": 24 pt "large": 28 pt Default value is "normal". For SIP-T2xP/T19P/T42G/T41P: This parameter will be ignored.
Align	optional	"center" "left" "right"	Alignment of the text. Default value is "left".
Color	optional	"white" "black" "red" "green" "brown" "blue" "magenta" "cyan" "lightgray" "darkgray" "lightred" "lightgreen" "yellow" "lightblue" "lightmagenta" "lightcyan"	Color of the text. For SIP-T2xP/T19P/T42G/T41P: This parameter will be ignored and the text displayed is always black. For SIP-T3xG/VP530: Default value is "white". For SIP-T46G: Default value is "black".
Scroll	optional	none	Define the scrolling content for display. The Line above the Scroll is as Header, under the Scroll is as Footer.
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no soft key defined in the FormattedTextScreen object, the LCD screen displays the following default soft key:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit

The function keys are listed in the following table:

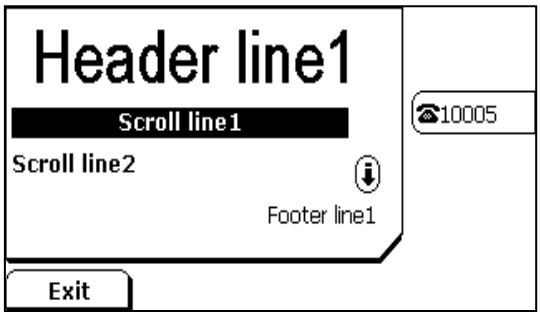
Key Name	Statement	Description
Up/Down	Up and down keys	For SIP-T2xP/T19P/T42G/T41P: Move the cursor up and down. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is moving the cursor up and down. If the value of the LockIn is "yes", there will be no response.
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If the value of the LockIn is "no", the phone will enter into pre-dial interface. If the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is the same as that of "doneAction". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is the same as that of "doneAction". If the value of the LockIn is "yes", there will be no response.

An example of the FormattedTextScreen object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneFormattedTextScreen
    doneAction="http://10.1.0.105/menu.php"
    Beep="yes"
    Timeout="60"
    LockIn="no">
```

```
    <Line Size="large" Align="center">Header line1</Line>
    <Scroll>
        <Line Size="large" Align="center">Scroll line1</Line>
        <Line Align="left" Color="black">Scroll line2</Line>
        <Line Size="small" Align="right" Color="white">Scroll line3</Line>
    </Scroll>
    <Line Size="small" Align="right" Color="white">Footer line1</Line>
</YealinkIPPhoneFormattedTextScreen>
```

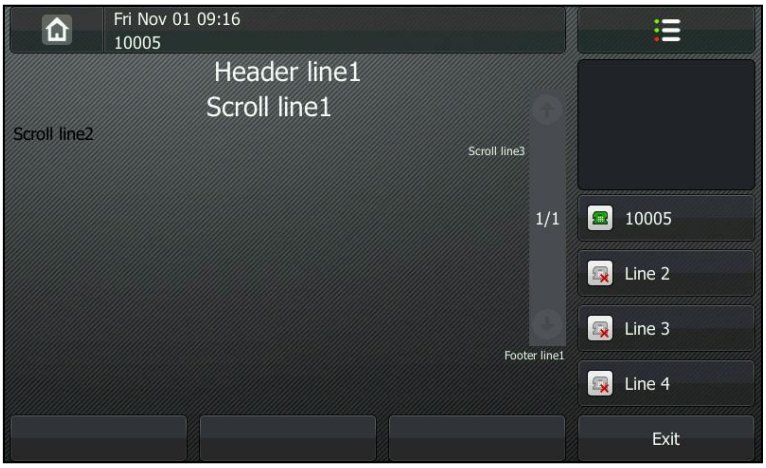
The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:



The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:

The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:

The screenshot of the VP530 IP video phone user interface for reference is shown as below:



ImageScreen Object

The ImageScreen object allows users to display simple image on the IP phones. The user can specify where the image should be placed by setting horizontal and vertical alignment of the upper left hand corner, along with the height and width of the image.

Note

For SIP-T2xP, SIP-T19P, SIP-T42G and SIP-T41P IP phones, the image is a "dob" file, which is specified as a series of hexadecimal characters.

For SIP-T3xG, SIP-T46G and VP530 IP phones, the image is a "jpg", "bmp" or "png" file located on a server, which can be downloaded by the phone.

Yealink provides a tool called "Dob2Text.exe" to convert a "dob" file to the hexadecimal string to be used with the ImageScreen object.

To convert a "dob" file to the hexadecimal string:

1. Place the tool "Dob2Text.exe" and the "dob" file to be converted in the same directory of your local system.
2. Double click "Dob2Text.exe" to launch the application.
3. Enter the name of the "dob" file (e.g. Yealink.dob), and press the **Enter** key.

   If the conversion is successful, a file will be generated in the same directory, whose content is the hexadecimal string to be used to specify the image in the ImageScreen object. In addition, you can obtain the width and height of the image from the name of the generated file, for example, yealink.dob_206_80.out, where 206 represents the width of the image and 80 represents the height of the image. As well, specify the width and height of the image in the ImageScreen object with these two values obtained from the name of the generated file (e.g. 206 and 80), otherwise the image will not be displayed correctly.

XML description of the ImageScreen object:

```
<YealinkIPPhoneImageScreen
    doneAction = "URI"
    Beep = "yes/no"
    Timeout = "integer"
    LockIn = "yes/no"
    mode="regular/fullscreen"
>
<Image
     horizontalAlign="right/middle/left"
     verticalAlign="top/middle/bottom"
     height="integer"
     width="integer"
     >Image as hexadecimal characters or URL</Image>
     <!—Additional Softkey Items may be added -->
</YealinkIPPhoneImageScreen>
```

The parameters of the ImageScreen object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneImageScreen	mandatory	none	The root element of the ImageScreen object.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
doneAction	optional	URI	Define the URI to be called when the user presses the "OK" key.
Timeout	optional	"integer" Unit: sec	If there is no operation at a fixed interval on the phone, the phone will automatically exit the ImageScreen interface. If it is set to 0, the phone will not exit the ImageScreen interface until pressing the "Exit" soft key. Default value is 45s.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key

Parameter	Type	Value	Description
			events. For more information, refer to the table shown next. Default value is "no".
Mode	optional	"regular" "fullscreen"	The display mode of the image. If not specified, the default value is "regular".
Image	mandatory	string	Image as hexadecimal characters or URL.
horizontalAlign	optional	"left" "middle" "right"	Vertical position of the image. Default value is "middle".
verticalAlign	optional	"top" "middle" "bottom"	Horizontal position of the image. Default value is "middle".
height	mandatory (For SIP-T2xP/T19P/ T42G/T41P)	integer	Height in pixels. Must match the image height.
width	mandatory (For SIP-T2xP/T19P/ T42G/T41P)	integer	Width in pixels. Must match the image width.
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no softkey defined in the ImageScreen object, the LCD screen displays the following default soft key:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit

The function keys are listed in the following table:

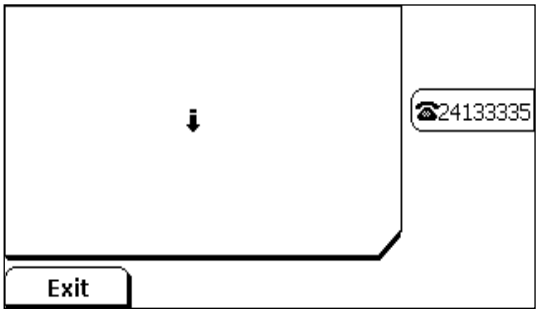
Key Name	Statement	Description
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
Offhook/ LineKey/ Handfree	Off hook/Line Key/ Handfree Key	If the value of the LockIn is "no", the phone will enter into pre-dial interface. If the value of the LockIn is "yes", there will be no responses to any

Key Name	Statement	Description
		operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is calling the URI defined by "doneAction". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is calling the URI defined by "doneAction". If the value of the LockIn is "yes", there will be no response.

An example of the ImageScreen object (for SIP-T2xP/T19P/T42G/T41P):

```
<YealinkIPPhoneImageScreen
        doneAction="http://10.1.0.105/menu.php"
        Beep="yes"
        Timeout="120"
        LockIn="yes"
        mode="regular">
    <Image
    verticalAlign="middle"
    horizontalAlign=" middle "
    height="12"
    width="8">
    00555500005555000000000000aaaa0000aaaa0000ffff0000ffff0000ffff00ffffffff0ffff0f00ffff000
    0f00f00</Image>
</YealinkIPPhoneImageScreen>
```

The screenshot of the SIP-T28P IP phone user interface for reference is shown as below:



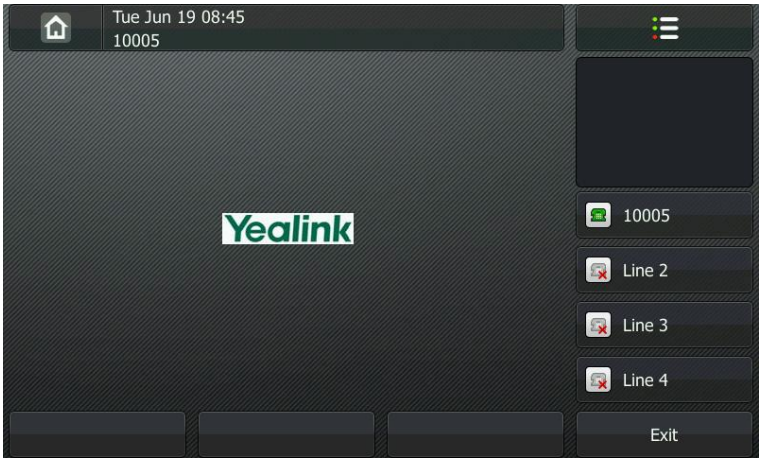
An example of the ImageScreen object (for SIP-T3xG/T46G/VP530):

```
<YealinkIPPhoneImageScreen
        doneAction="http://10.1.0.105/menu.php"
        Beep="yes"
        Timeout="60"
        LockIn="yes"
        mode="regular">
    <Image
    horizontalAlign="right"
    verticalAlign="top"
    >http://10.2.6.3:8080/xmlroot/bg2.jpg</Image>
</YealinkIPPhoneImageScreen>
```

The screenshot of the SIP-T38G IP phone user interface for reference is shown as below:

The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:

The screenshot of the VP530 IP video phone user interface for reference is shown as below:



ImageMenu Object

The ImageMenu object allows users to create an image list of menu items on the IP phones. The user can specify the image menu items to link HTTP requests.

Note ImageMenu object is only applicable to SIP-T28P, SIP-T26P, SIP-T22P, SIP-T19P, SIP-T46G, SIP-T42G and SIP-T41P IP phones running firmware version 71 or later.

For these IP phones, the image is a "dob" file, which is specified as hexadecimal string. For more information on converting a "dob" file to hexadecimal string, refer to ImageScreen Object on page 48.

XML description of the ImageMenu object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneImageMenu
        doneAction = "URI"
        Beep = "yes/no"
        Timeout = "integer"
        LockIn = "yes/no"
        mode="regular/fullscreen"
        >
       <Image
         horizontalAlign="right/middle/left"
         verticalAlign="top/middle/bottom"
         height="integer"
         width="integer"
        > Image as hexadecimal characters or URL </Image>
```

```
<URIList base="URL">
  <URI key=" 0-9,* or #">URL</URI>
   <!—Additional URI entries may be added (0-9,* and #)-->
  </URIList>
<!—Additional Softkey Items may be added -->
</YealinkIPPhoneImageMenu>
```

The parameters of the ImageMenu object are listed in the following table:

Parameter	Type	Value	Description
YealinkIPPhoneImageMenu	mandatory	none	The root element of the ImageMenu object.
Beep	optional	"yes" "no"	Whether to play a tone when the XML object is opened. Default value is "yes".
doneAction	optional	URI	Define the URI to be called when the user presses the "OK" key.
Timeout	optional	"integer" Unit: sec	If there is no operation at a fixed interval on the phone, the phone will automatically exit the ImageMenu interface. If it is set to 0, the phone will not exit the ImageMenu interface until pressing the "Exit" soft key. Default value is 45.
LockIn	optional	"yes" "no"	If it is set to "yes", the phone ignores specified function key events. For more information, refer to the table shown next. Default value is "no".
mode	optional	"regular" "fullscreen"	The display mode of the image. If it is not specified, the default value is "regular".
Image	mandatory	string	Image as hexadecimal characters or URL.
horizontalAlign	optional	"left" "middle" "right"	Vertical position of the image. Default value is "middle".
verticalAlign	optional	"top" "middle"	Horizontal position of the image. Default value is "middle".

Parameter	Type	Value	Description
		"bottom"	
height	mandatory (For SIP-T2xP/T19P/ T42G/T41P)	integer	Height in pixels. Must match the image height.
width	mandatory (For SIP-T2xP/T19P/ T42G/T41P)	integer	Width in pixels. Must match the image width.
URIList	mandatory	none	Master tag of the URI list linked to a keypad key (0-9, * and #).
Base	optional	string	The Base value is the parent directory of the URI value.
URI	mandatory	string	URI to be used if the user presses the value of "Key".
Key	mandatory	0-9,* and #	Define the key to trigger the URI.
SoftKey	optional	string	Refer to Customizable Soft keys for more information.

If there is no soft key defined in the ImageMenu object, the LCD screen displays the following default soft key:

SoftKey Index	Label	URI
1	Exit	SoftKey: Exit

The function keys are listed in the following table:

Key Name	Statement	Description
Keypad	Digit keys 0~9, * and #	For SIP-T2xP/T19P/T42G/T41P: Press the keypad value to trigger the pre-defined URI. For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function is triggering the pre-defined URI. If the value of the LockIn is "yes", there will be no responses to any operation.
Exit	Soft key, URI="SoftKey: Exit"	Return to the previous XML interface, otherwise return to the idle interface.
Offhook/	Off hook/Line Key/	If the value of the LockIn is "no", the phone will

Key Name	Statement	Description
LineKey/ Handfree	Handfree Key	enter into pre-dial interface. If the value of the LockIn is "yes", there will be no responses to any operation.
Cancel	The "X" key of the phone	If the value of the LockIn is "no", the function of "X" key is returning to the idle interface. If the value of the LockIn is "yes", there will be no response.
OK	The "OK" key of the phone	For SIP-T2xP/T19P/T42G/T41P: The function of "OK" key is calling the URI defined by "doneAction". For SIP-T46G/T3xG/VP530: If the value of the LockIn is "no", the function of "OK" key is calling the URI defined by "doneAction". If the value of the LockIn is "yes", there will be no response.

An example of the ImageMenu object (for SIP-T2xP/T19P/T42G/T41P):

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneImageMenu
      Beep = "yes"
      Timeout = "120"
      LockIn = "no"
      mode="regular">
    <Image
     verticalAlign="middle"
     horizontalAlign="middle"
     height="12"
     width="8">
     00555500005555000000000000aaaa0000aaaa0000ffff0000ffff0000ffff00ffffffffff0ffff0f00ffff000
     0f00f00</Image>
    <URIList base="http://10.3.6.129:8080/XML/new/">
      <URI key="#">TextMenu.xml</URI>
      <URI key="0">Directory.xml</URI>
      <URI key="1">InputScreen.xml</URI>
    </URIList>
</YealinkIPPhoneImageMenu>
```

An example of the ImageMenu object (for SIP-T46G):

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneImageMenu
        Beep = "yes"
        Timeout = "120"
        LockIn = "no"
        mode="regular">
      <Image
       verticalAlign="middle"
       horizontalAlign="left"
       >http://10.3.6.129:8080/XML/new/ImageMenu.jpg</Image>
      <URIList base="http://10.3.6.129:8080/XML/new/">
        <URI key="#">TextMenu.xml</URI>
        <URI key="0">Directory.xml</URI>
        <URI key="1">InputScreen.xml</URI>
      </URIList>
</YealinkIPPhoneImageMenu>
```

The screenshot of the SIP-T46G IP phone user interface for reference is shown as below:

You can press the pound key to enter into the text menu, digit key 0 to access the directory or digit key 1 to enter into the input screen.

Customizable Soft keys

Yealink IP phones allow users to create soft keys with customizable labels, positions and actions to be taken when the soft keys is pressed. The customizable soft keys can override the default soft keys in each XML object.

XML descriptions of customizable soft keys:

```
<SoftKey index = "1-6">
    <Label>Text</Label>
    <URI>http://someserver/somepage OR SoftKey: someaction</URI>
</SoftKey>
```

Note

Customizable soft keys are only available for the UI XML objects.

If you use the customizable soft keys, the default soft keys of the XML object will not be displayed anymore. This means they have to be recreated as customizable soft keys.

When the customizable soft keys are used with InputScreen Object, the definitions of the soft keys should be placed in the InputField element to take effect.

The parameters of the soft key are listed in the following table:

Parameter	Type	Value	Description
SoftKey	mandatory	none	The soft key.
Index	mandatory	Integer	Indicate the soft key number. (Value ranges from 1~6.)
Label	mandatory	String	The label of the soft key.
URI	mandatory	String	The action of the soft key.

The supported actions for each UI XML object are described in the following table:

Name	Action	Function
TextMenu Object		
Select	SoftKey: Select	Dial out the URI command in the menu item.
Dial	SoftKey: Dial	Dial out the number of the highlighted contact. For SIP-T46G: This soft key is called Send.
Exit	SoftKey: Exit	Return to the previous XML interface, otherwise return to the idle interface.
Previous	SoftKey: Previous	Dial out the URI of "Previous" command.
Next	SoftKey: Next	Dial out the URI of "Next" command.
TextScreen Object		
Exit	SoftKey: Exit	Return to the previous XML interface,

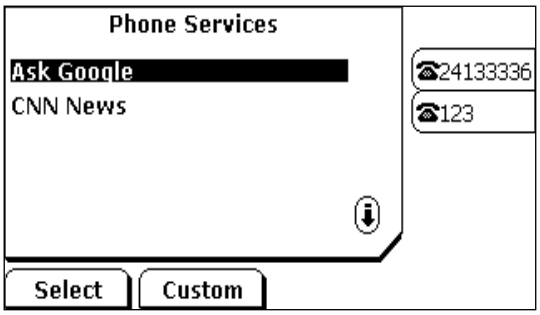
Name	Action	Function
		otherwise return to the idle interface.
Previous	SoftKey: Previous	Dial out the URI of "Previous" command.
Next	SoftKey: Next	Dial out the URI of "Next" command.
InputScreen Object		
BackSpace	SoftKey: BackSpace	Delete the character before the cursor in the input box.
Submit	SoftKey: Submit	Execute the command comprised of the URI and input content.
NextSpace	SoftKey: NextSpace	Insert a space in the input box at the cursor position. This soft key is not effective for SIP-T2xP IP phones.
Dot	SoftKey: Dot	Insert a "." in the input box at the cursor position.
2aB	SoftKey: ChangeMode	Input mode switch, i.e. switch the input mode among "2aB", "ABC", "abc" or "123".
Dial	SoftKey: Dial	Dial out the number of the highlighted contact. For SIP-T46G: This soft key is called Send.
Exit	SoftKey: Exit	Return to the previous XML interface, otherwise return to the idle interface.
Previous	SoftKey: Previous	Dial out the URI of "Previous" command.
Next	SoftKey: Next	Dial out the URI of "Next" command.
Directory Object		
Dial	SoftKey: Dial	Dial out the number of the highlighted contact. For SIP-T46G: This soft key is called Send.
Previous	SoftKey: Previous	Dial out the URI of "Previous" command.
Next	SoftKey: Next	Dial out the URI of "Next" command.
Exit	SoftKey: Exit	Return to the previous XML interface, otherwise return to the idle interface.
ImageScreen Object		
Roll	SoftKey: Roll	Scroll the image.

Name	Action	Function
Exit	SoftKey: Exit	Return to the previous XML interface, otherwise return to the idle interface.
ImageMenu Object		
Roll	SoftKey: Roll	Scroll the image.
Exit	SoftKey: Exit	Return to the previous XML interface, otherwise return to the idle interface.

An example of the customizable soft keys used with the TextMenu object:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextMenu
    style="none"
    Beep="no"
    Timeout="30"
    LockIn="yes">
    <Title wrap="yes">Phone Services</Title>
    <MenuItem>
    <Prompt>Ask Google</Prompt>
    <URI>http://10.2.11.158/yealink/google/google.php?user=</URI>
    <Dial>456</Dial>
    </MenuItem>
    <MenuItem>
    <Prompt>CNN News</Prompt>
    <URI>http://10.2.11.158/yealink/rss/rss.php?feed=cnn</URI>
    <Dial>1001</Dial>
    </MenuItem>
    <SoftKey index="1">
    <Label>Select</Label>
    <URI>SoftKey: Submit</URI>
    </SoftKey>
    <SoftKey index="2">
    <Label>Custom</Label>
    <URI>http://10.1.0.105/8.8.8.54.rom</URI>
    </SoftKey>
</YealinkIPPhoneTextMenu>
```

The screenshot of the IP phone user interface for reference is shown as below:



XML Objects Pushed to the Phone

The phone can request an XML object via HTTP GET, or an object can be pushed to the phone via a POST. The phone parses this object immediately upon receipt and displays the information on the screen.

The HTTP POST packet must contain an "xml=" line in the message body. XML data is located after the equals sign in the message. HTML forms that post objects to the phone must use a field named "xml" to send data. The applications that construct HTTP packets must also specify this line.

To accept a pushed message, the "PushXML_ServerIP" parameter on the phone must be configured as the IP address of the push XML server. For more information, refer to Configuring the Push XML Server Address.

Description of the object oriented php class:

```
<?php
#
function push2phone($server,$phone,$data)
{
$xml = "xml=".$data;
$post = "POST / HTTP/1.1\r\n";
$post .= "Host: $phone\r\n";
$post .= "Referer: $server\r\n";
$post .= "Connection: Keep-Alive\r\n";
$post .= "Content-Type: text/xml\r\n";
$post .= "Content-Length: ".strlen($xml)."\r\n\r\n";
$fp = @fsockopen ( $phone, 80, $errno, $errstr, 5);
if($fp)
{
fputs($fp, $post.$xml);
```

```
flush();
fclose($fp);
}
}
##############################
# The above codes are fixed, please just edit the following codes according to requirement.

$xml = "XML item\n";
$xml = "XML item\n";
<!--Additional XML Items may be added -->
<!--All XML Items added here construct an XML object -->

push2phone("Server IP Address, Phone IP Address ",$xml);
# replace IP address of the push XML server with "Server IP Address"
# replace IP address of the phone with "Phone IP Address"
?>
```

Sample php source code:

In this example, the IP address of the push XML server is 192.168.0.112, and the server is defined to send a XML message to the IP phone with IP address 192.168.0.150.

```
<?php
#
function push2phone($server,$phone,$data)
{
$xml = "xml=".$data;
$post = "POST / HTTP/1.1\r\n";
$post .= "Host: $phone\r\n";
$post .= "Referer: $server\r\n";
$post .= "Connection: Keep-Alive\r\n";
$post .= "Content-Type: text/xml\r\n";
$post .= "Content-Length: ".strlen($xml)."\r\n\r\n";
$fp = @fsockopen ( $phone, 80, $errno, $errstr, 5);
if($fp)
{
fputs($fp, $post.$xml);
flush();
fclose($fp);
```

```
}
}
##############################

$xml = "<YealinkIPPhoneTextScreen Beep=\"yes\">\n";
$xml .= "<Title>Push test</Title>\n";
$xml .= "<Text>This is a test for pushing text to a phone.</Text>\n";
$xml .= "</YealinkIPPhoneTextScreen>\n";
#The above 4 lines prefixed with "$xml =" constructs a TextScreen object to be pushed to the
#phone.
#You can construct your own XML object using the same method.

push2phone("192.168.0.112","192.168.0.150",$xml);
?>
```

Configuring the HTTP Server

Yealink IP phones support downloading by using the HTTP (HTTPS) protocol. You can set up the HTTP(s) server, and place some XML files on the server for downloading.

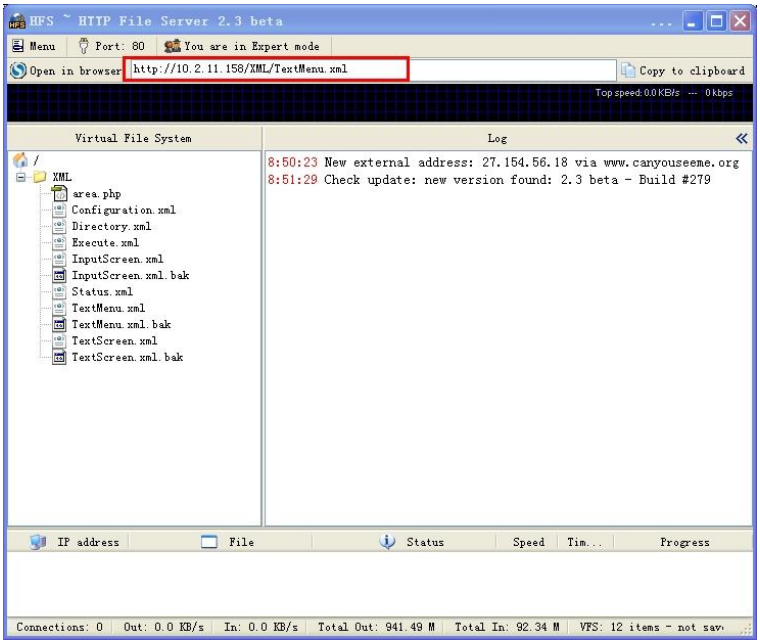
This section provides you with some instructions on how to configure the HTTP server and obtain the access URL of the XML files downloaded by the IP phones.

To configure the HTTP server using HFS application:

1. Double click the HFS.exe.
2. Click **Menu** in the main page and select the IP address of the PC from **IP address**.

   The default HTTP port is 80. You can also reset the HTTP port (make sure the port isn't in use before reset).
3. Right click the icon on the left of the main page, select **Add folder from disk** to add the HTTP Server root directory.
4. Locate the root directory from your local computer. Select your desired folder.
5. Select one of the XML files, then the access URL of the selected XML file displays in the address bar.

The screenshot for reference is shown as below:



Configuring the Push XML Server

We recommend that you configure the Apache server as the push XML server.

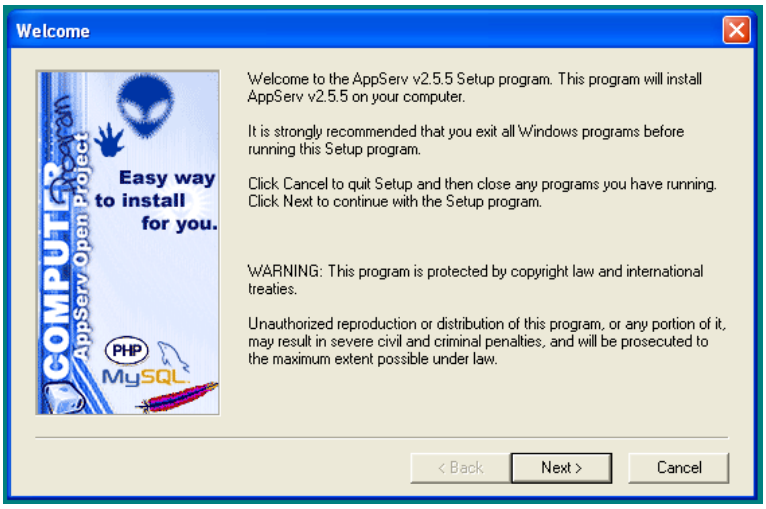
You can download the Apache installation application from:

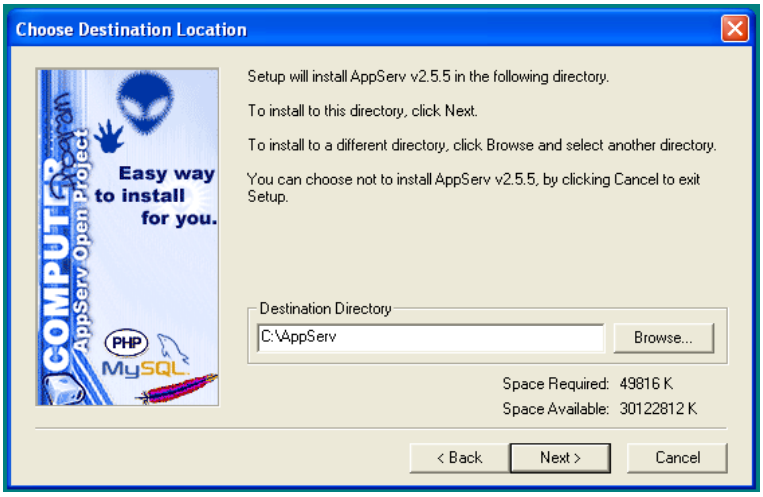
http://prdownloads.sourceforge.net/appserv/appserv-win32-2.5.5.exe?download, and then follow the instructions to install it.

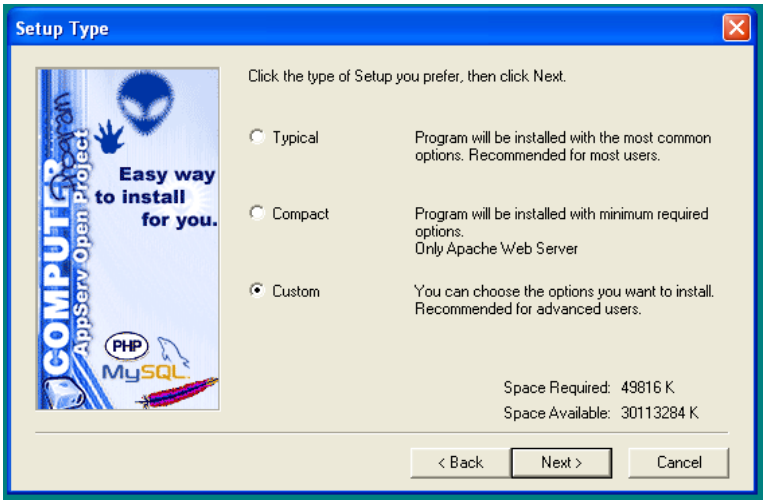
To configure the Apache server:

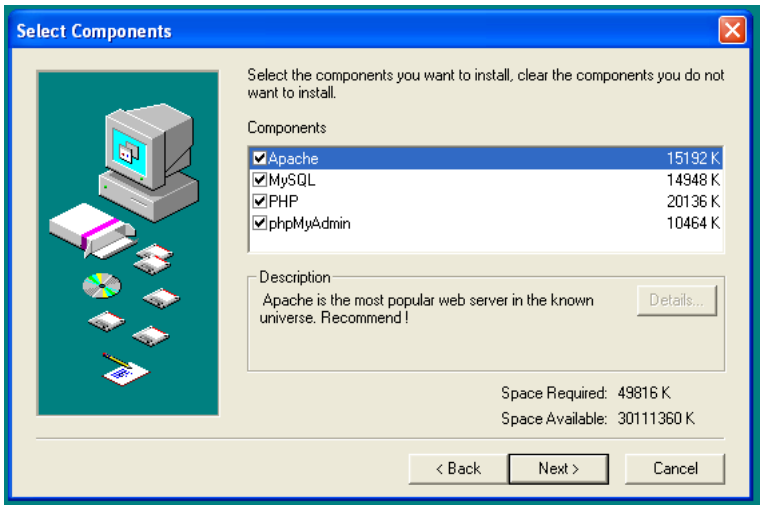
1. Double click appserv-win32-2.5.5.exe to run the application.
2. Follow the setup wizard shown as below:

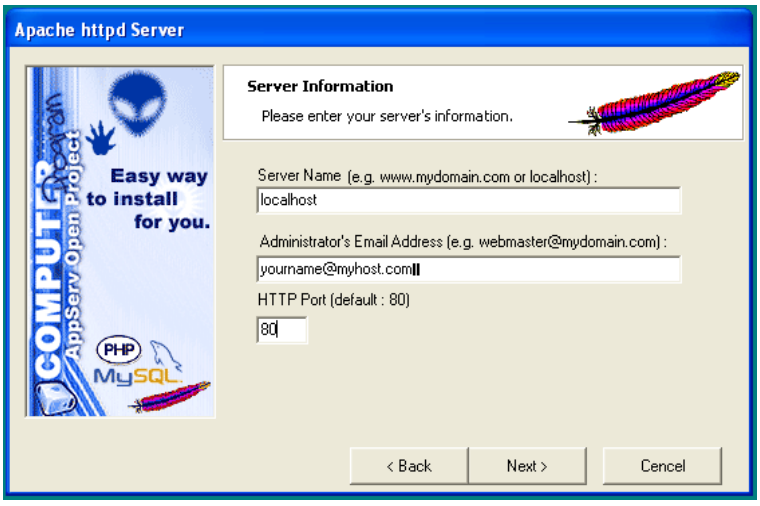
   Remember the installation path of the Apache server. In this example, the installation path is C:\AppServ.

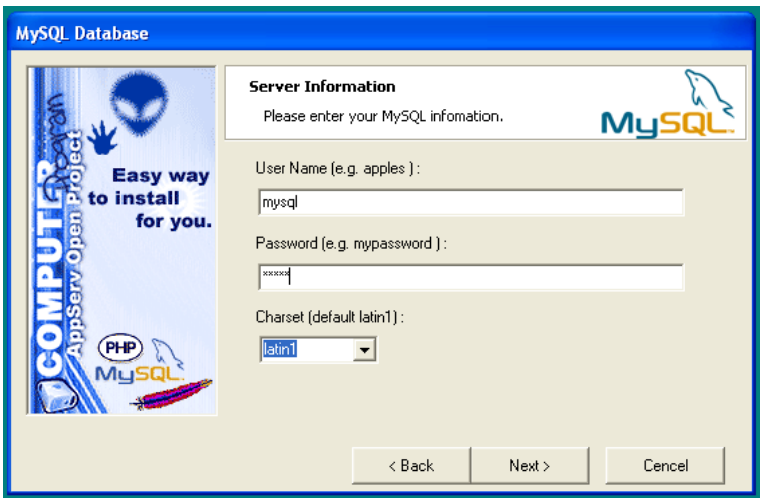


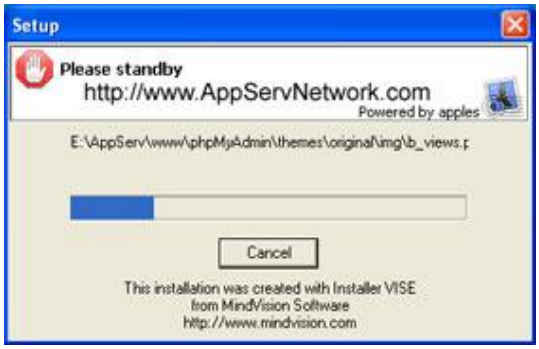


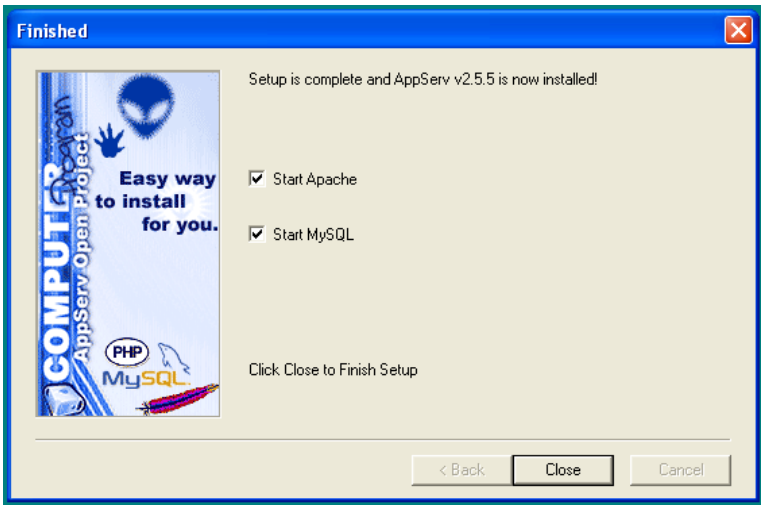

Setup Type
Easy way to install for you.
COMPUTER AppServ Open Project
PHP
MySQL
Click the type of Setup you prefer, then click Next.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Only Apache Web Server
Custom
You can choose the options you want to install.
Recommended for advanced users.
Space Required: 49816 K
Space Available: 30113284 K
< Back
Next >
Cancel


Select Components
Select the components you want to install, clear the components you do not want to install.
Components
Apache 15192 K
MySQL 14948 K
PHP 20136 K
phpMyAdmin 10464 K
Description
Apache is the most popular web server in the known universe. Recommend !
Details...
Space Required: 49816 K
Space Available: 30111360 K
< Back
Next >
Cancel


Apache httpd Server
Easy way to install for you.
COMPUTER AppServ Open Project
PHP
MySQL
Server Information
Please enter your server's information.
Server Name (e.g. www.mydomain.com or localhost) :
localhost
Administrator's Email Address (e.g. webmaster@mydomain.com) :
yourname@myhost.com
HTTP Port (default : 80)
80
< Back
Next >
Cancel

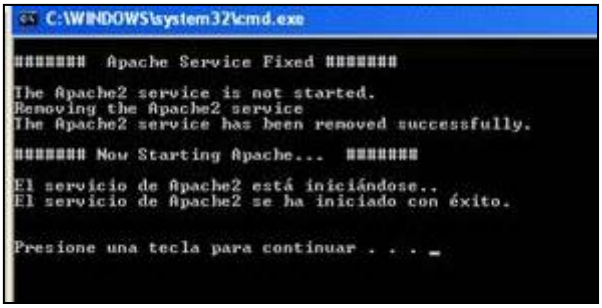






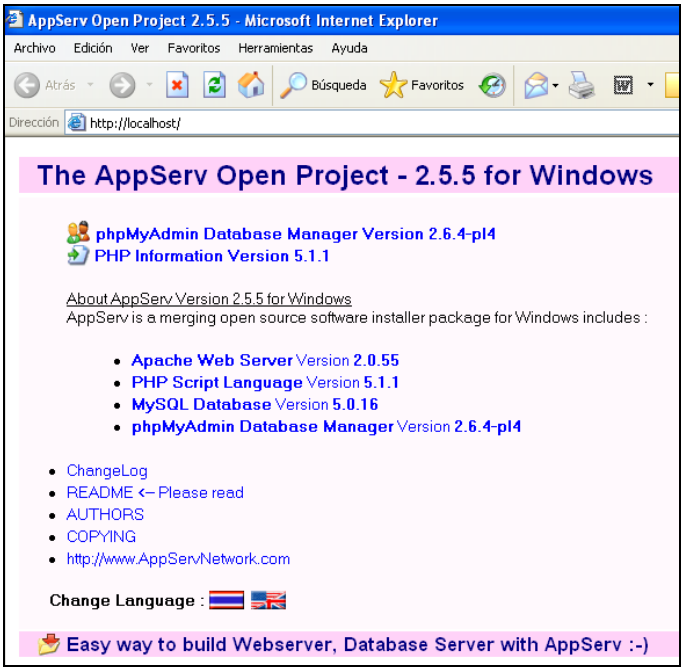
3. Click **Close** to finish the installation.

The screen pops up the following window:



4. You can validate that the installation is successful. Enter "Http://localhost/" in the address bar of the web browser and press the **Enter** key.

   The web page should be shown as below:



To push an XML object to the phone:

After the Apache server is installed in your local system, you can find the www directory in the installation path (For example, C:\AppServ.) of the Apache server.

1. Place the php file used to send an XML object to the phone (For example, TextScreen.php) in the www directory.
2. Enter the access URL (For example, http://localhost/TextScreen.php. Replace "TextScreen.php" with the name of the XML object to be pushed.) of the php file in the address bar of the web browser, and press the **Enter** key to push an XML object to the phone.

Yealink IP Phone XML Configurations

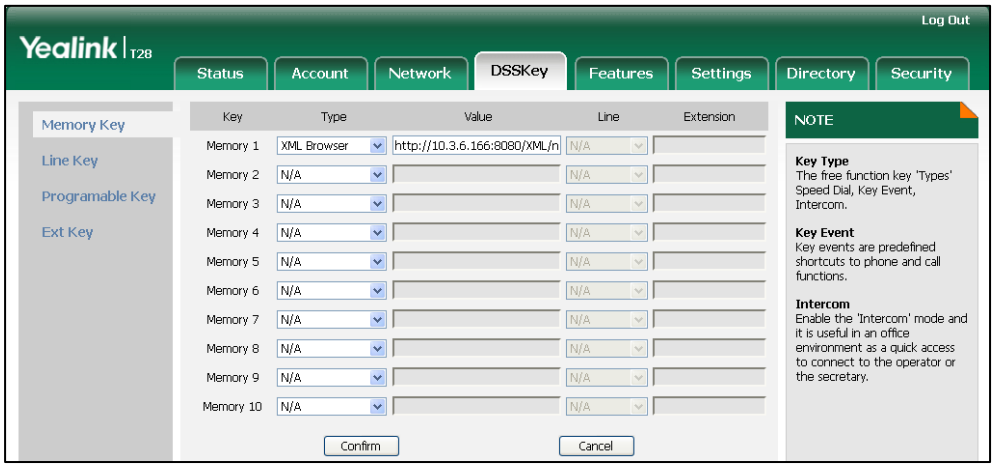
The followings take configurations of a SIP-T28P IP phone running firmware version 71 as examples.

Configuring an XML Browser Key

To use the XML browser feature, you must configure an XML key in advance. You can configure an XML Browser key via web user interface or phone user interface.

To configure an XML Browser key via web user interface:

1. Access the web user interface of the phone.
2. Click on **DSSKey**->**Memory Key** (or **Line Key**).
3. In the desired memory key (or line key) field, select **XML Browser** from the pull-down list of **Type**.
4. Fill in the available access URL in the **Value** field.

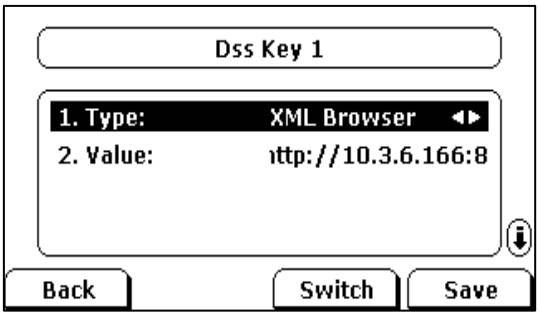


5. Click **Confirm** to accept the change.

To configure an XML Browser key via phone user interface:

1. Press **Menu**->**Features**->**DSS Keys**->**Memory Keys** (**Line Keys**).
2. Select the desired DSS Key.
3. Press ◄ or ►, or the **Switch** soft key to select **XML Browser** from the **Type** field.

4. Enter the available access URL in the **Value** field.



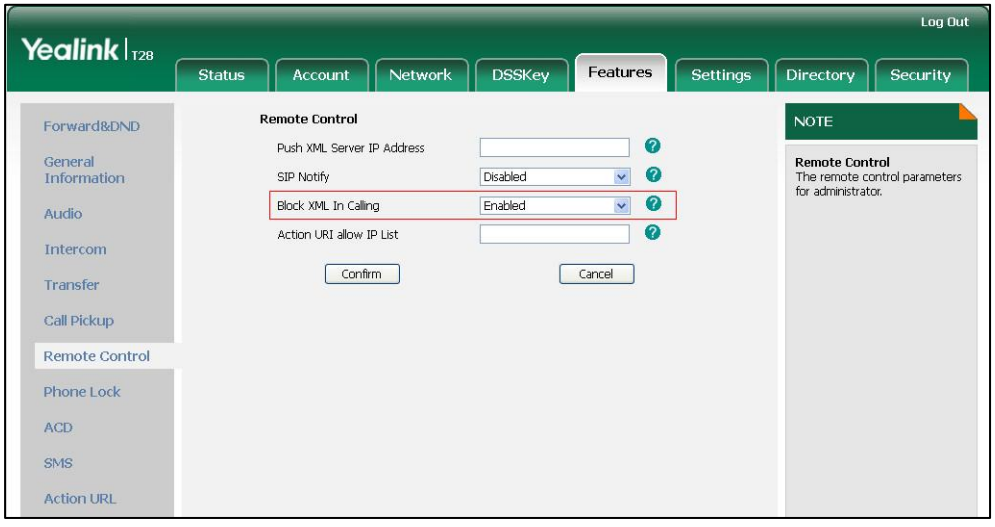
5. Press the **Save** soft key to accept the change.

Configuring the Block XML In Calling

You can configure the Block XML In Calling via web user interface. It enables or disables the phone to block XML applications during a call. For example, If it is enabled, press a XML browser key when there is an active call on the phone, the XML application will be blocked.

To configure the Block XML In Calling via web user interface:

1. Access the web user interface of the phone.
2. Click on **Features**->**Remote Control**.
3. Select **Enabled** from the pull-down list of **Block XML In Calling** field.



4. Click **Confirm** to accept the change.

Configuring the Push XML Server Address

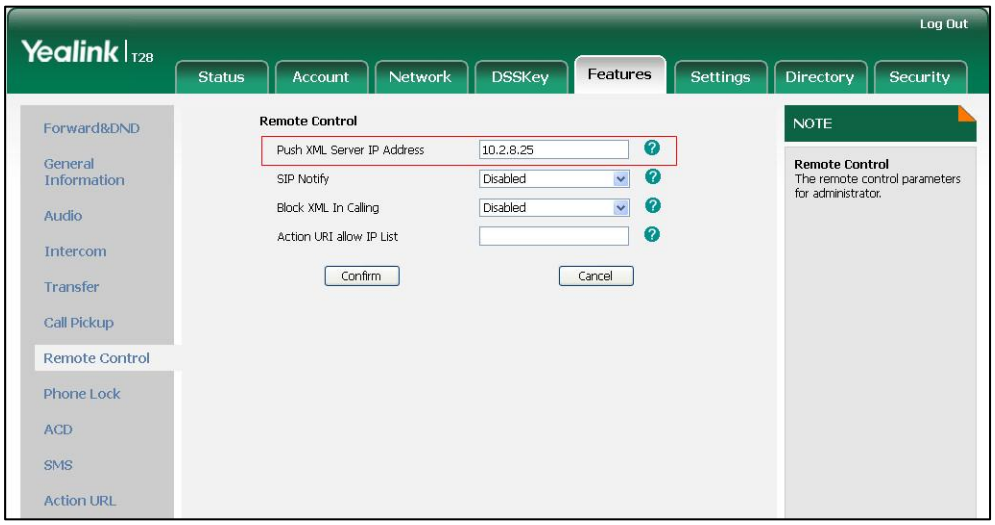
The IP address or domain name of the push XML server is specified in the **Push XML Server IP Address** field. After configuration, the IP phone will be able to accept the

HTTP(s) POST from the server.

To configure the Push XML Server via web user interface:

1. Access the web user interface of the phone.
2. Click on **Features**->**Remote Control**.
3. Enter IP addresses or domain names in the **Push XML Server IP Address** field.

   The valid values must be within 512 characters. Each IP address or domain name is separated by a comma. If this field is left blank, the phone will reject HTTP POST messages from any server.



4. Click **Confirm** to accept the change.

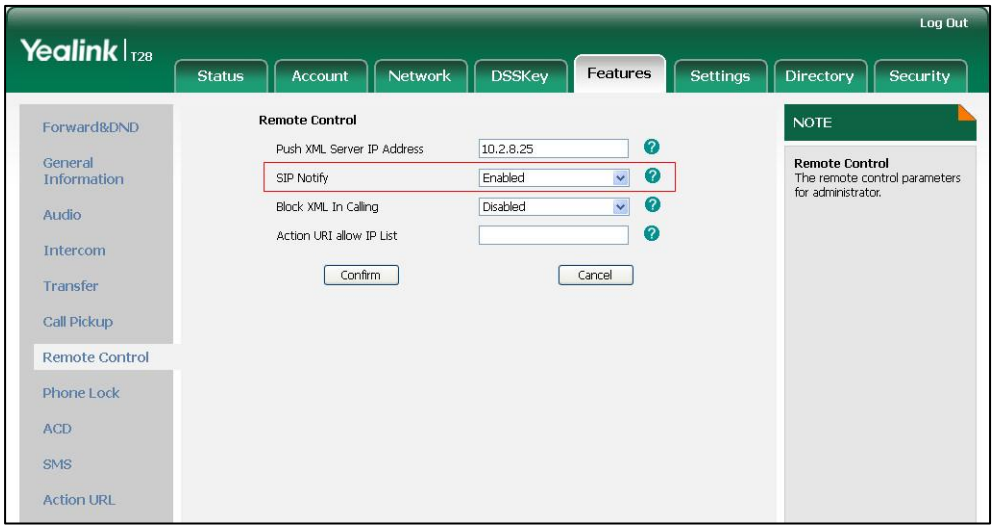
Configuring the XML SIP Notify

You can configure the XML SIP Notify via web user interface. It will enable or disable SIP NOTIFY messages to be processed by the phone.

To configure the XML SIP Notify via web user interface:

1. Access the web user interface of the phone.
2. Click on **Features**->**Remote Control**.

3. Select **Enabled** from the pull-down list of **SIP Notify** field.



4. Click **Confirm** to accept the change.

Upon receiving the XML SIP NOTIFY message, the phone will display the information or execute the command contained in the NOTIFY message.

Example of a SIP Notify with XML content:

```
NOTIFY sip:303@192.168.168.75:5063 SIP/2.0
From: "303"<sip:303@192.168.168.200>;tag=41e83658-c0a8a8c8-13c4-50022-1a1b1-17e4bacd-1a1b1
To: "303"<sip:303@192.168.168.200>;tag=593303487
Call-ID: 332200269@192.168.168.75
CSeq: 2 NOTIFY
Via: SIP/2.0/UDP 192.168.168.200:5060;rport;branch=z9hG4bK-1a22f-6618b71-5c4a8ac7
Subscription-State: active
Event: Yealink-xml
Max-Forwards: 70
Supported: replaces,timer
Contact: <sip:303@192.168.168.200>
Content-Type: application/xml
Content-Length: 1353

<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextScreen
    Beep="yes"
    defaultIndex="2"
    cancelAction="http://10.1.0.105/cancel.php"
    doneAction="http://10.1.0.105/menu.php"
    Timeout="10"
    LockIn="no">

<Title wrap="yes">TextScreen</Title>

<Text>Today I am very glad, as you pleased?</Text>

<SoftKey index="1">
<Label>Select</Label>
<URI>SoftKey:Select</URI>
</SoftKey>

<SoftKey index="2">
<Label>Custom</Label>
<URI>http://10.1.0.105/menu1.xml</URI>
</SoftKey>
</YealinkIPPhoneTextScreen>
```

Customer Feedback

We are striving to improve our documentation quality and we appreciate your feedback. Email your opinions and comments to DocsFeedback@yealink.com.