Fanvil XML Operation Guide

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1   Introduction

1.1   Overview

Fanvil IP telephone sets support the push XML and XML browser functions. Though content is transmitted to mobile phones in HTTP messages through the web server, the content is not in HTML format. Users can compile plain text documents based on actual content and provide the documents to telephone sets.

The two XML types are described as follows:

UI: An XML object is used to control the display on the LCD screen of IP telephone sets.

Non-UI: XML objects are irrelevant to the display on the LCD screen of IP telephone sets.

1.2   Applicable Models

This document applies to Fanvil X3S, X4, X5S, and X6.

1.3   Working Modes of XML

Fanvil supports two working modes: XML browser and XML browser key.

You can configure relevant DSS keys on the telephone set and then press these keys to use different functions. You can also execute php files on the webpage to use relevant functions.

2 Push XML

Currently, Fanvil X series telephone sets support the following XML formats: TEXT, MENU, PHONE DIRECTORY, EXECUTE, and TEXTSCREEN. MENU is used to obtain and display the remote phone book.

Fanvil telephone sets are compatible with Cisco, Yealink, and Voismart XML files in TEXT, MENU, PHONE DIRECTORY, or EXECUTE format. Users can flexibly add prefixes to the body name of an XML file. For example, CiscoIPPhoneText, YealinkIPPhoneText, and VoismartIPPhoneText. The body name of XML files of Fanvile telephone sets is FanvilIPPhoneText. The implementation methods of MENU, PHONE DIRECTORY, and EXECUTE are similar to those of TEXT.

If an XML file contains an element that cannot be identified by a telephone set, the telephone set will discard this element. The telephone set assigns a maximum of 8 KB memory to each XML file and discards files larger than 8 KB during parsing.

2.1 Parameters

Parameter	Position	Type	Value	Description
CiscoIPPhoneText	Root tag	Mandatory	none	Root element
fanvilIPPhoneDirectoryEntry	Root tag	Mandatory	none	Root element
MenuItem	Root tag	Mandatory	none	Root element
FanvilConfiguration	Root tag	Mandatory	none	Root element
FanvilIPPhoneExecute	Root tag	Mandatory	none	Root element
DirectoryEntry	Root tag	Mandatory	none	Root element
Beep	Root tag	Optional	yes no	Whether to play an announcement during push

2.2 Push XML Configuration Method

Enter the IP address of the telephone set, for example, http://192.168.3.76/. On the login page, enter the user name and password to access the webpage of the telephone set.

Choose Phone Settings > Features, as shown in the following figure.
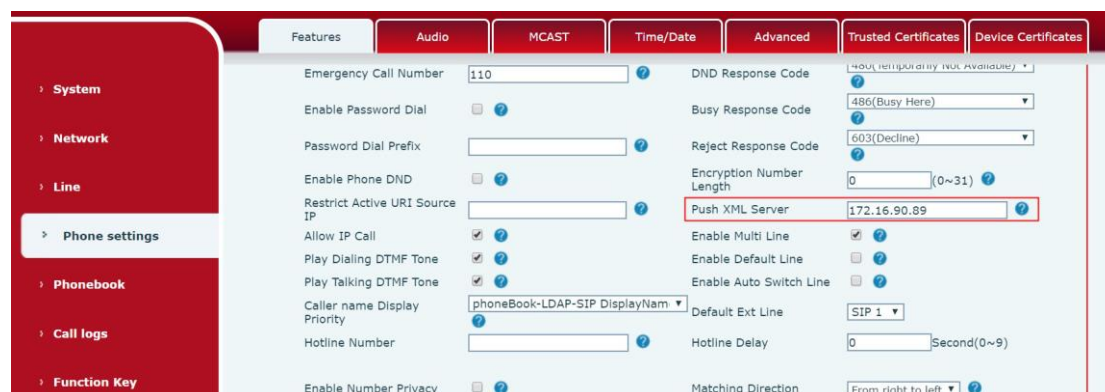
Enter a correct server address in Push XML Server and click Apply. Only messages pushed by this server are received. If no server address is set here, the telephone set may receive messages pushed by any server.

2.2.1 Push TEXT

Text.php document

```
<?php
#
function push2phone($server,$phone,$data)
{
$xml = $data;
$post = "POST /xmlService? 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 = "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n";
$xml .= "<CiscoIPPhoneText beep=\"yes\">\n";
$xml .= "<Title>push    title</Title>\n";
$xml .= "<Text>t will be sunny if you are well.</Text>\n";
$xml .= "</CiscoIPPhoneText>\n";


push2phone("172.16.90.89","172.16.90.164",$xml);
#replace 172.16.90.89 with your Apache ip address
#replace 172.16.90.164 with your phone ip address
?>
```

The following table describes the attributes and functions of elements in this type of XML file.

Element	Attribute	Application
Title	Title of a TEXT document	The title is displayed at the top of a TEXT page. If the title is long, it can be displayed on multiple lines. If an XML file does not contain a title, no title is displayed and the text occupies the position of the title.
Text	Text of a TEXT document	

Type http://localhost/Text.php on a browser and press Enter. The telephone set will receive pushed information.

2.2.2   Push MENU

After an XML file is parsed, the menu list on the menu page consists of a group of names. The display sequence of these names depends on the sequence in the XML file. The names are prefixed with a sequence number. Press the Up and Down arrow keys or directly press a number key to select a record. The telephone set will download the corresponding network phone book based on the URL and display it in menu. Beijing_index.xml may be in the IPPhoneDirectory or DirectoryEntry format. If the irectoryEntry format is used, the telephone set directly displays the contact details page after entering the menu item.
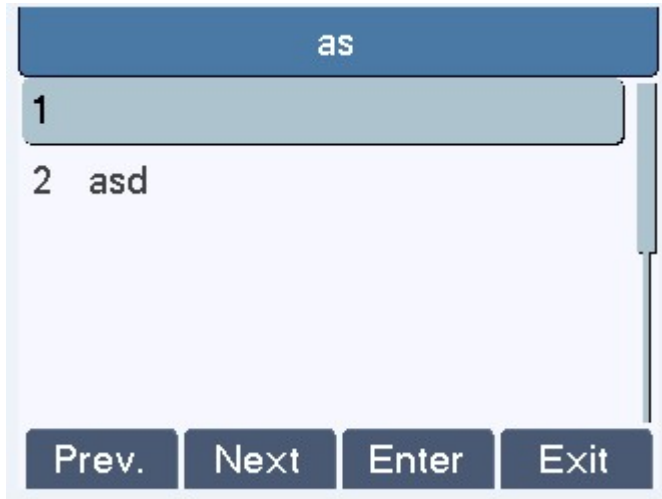
menu.php document

```php
<?php
#
function push2phone($server,$phone,$data)
{
$xml = $data;
$post = "POST /xmlService? 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 = "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n";
$xml .= "<FanvilIPPhoneMenu beep=\"no\">\n";
$xml .= "<Title>Title</Title>\n";
$xml .= "<MenuItem>\n";
$xml .= "<URL>http://winline:winline@192.168.1.3/RemotePhoneBook/index.xml</URL>\n";
$xml .= "</MenuItem>\n";
$xml .= "<MenuItem>\n";
$xml .= "<Name>Name</Name>\n";
$xml .= "<URL>http://winlie:winline@192.168.1.32/RemotePhoneBook/Beijing_MT_index.xml</URL>\n";
$xml .= "</MenuItem>\n";
$xml .= "</FanvilIPPhoneMenu>\r\n";
push2phone("172.16.90.89","172.16.90.164",$xml);
?>
```

The following table describes the attributes and functions of elements in this type of XML file.

Element	Attribute	Description
Title	Title of the menu	The title is displayed at the top of a TEXT page. If the title is long, it can be displayed on multiple lines. If an XML file does not contain a title, no title is displayed and the text occupies the position of the title.
Name	Name of a menu item	Identifies the name of the menu item, which is Beijing_index.xml here
URL	Universal resource locator	A phone book that points to an XML format
MenuItem	Subclass of menu	A menu subclass displayed on the LCD screen of a telephone set

Note: The telephone set does not save the pushed menu and downloaded phone book due to limited capacity. If a piece of information is pushed to a telephone set and the user taps the exit key, the user can no longer view the pushed information. A maximum of 100 records can be retained under each level of directory.

Type http://localhost/menu on a browser and press Enter. The telephone set may receive the pushed network phone book.

2.2.3   Push DIRECTORY

A directory contains one or multiple directory entries and displays the names of these directory entries in a list. The display sequence depends on the sequence in the XML file. Select a record and view its details. If a directory contains only one record, the directory entry can be directly pushed to the telephone set in XML format. The telephone set will directly display the details
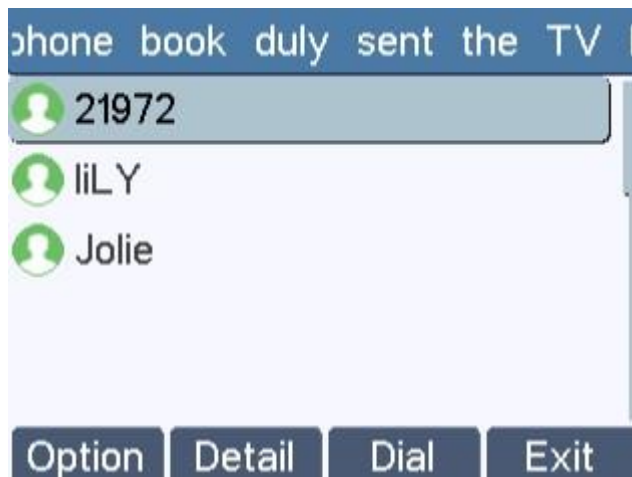
page of this contact.

Directory.php document

```php
<?php
function push2phone($server,$phone,$data)
{
$xml = $data;
$post = "POST /xmlService? 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 .= "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n";
$xml .= "<FanvilIPPhoneDirectory beep=\"yes\">\n";
$xml .= "<Title>The phone book duly sent the TV broadcast first salutes the great BMS team</Title>\n";
$xml .= "<DirectoryEntry>\n";
$xml .= "<Name></Name>\n";
$xml .= "<Telephone></Telephone>\n";
$xml .= "<Mobile>21972</Mobile>\n";
$xml .= "<Other>7589</Other>\n";
$xml .= "<Ring>1</Ring>\n";
$xml .= "<Group>friend</Group>\n";
$xml .= "</DirectoryEntry>\n";
$xml .= "</FanvilIPPhoneDirectory>\n";
push2phone("172.16.90.89","172.16.90.164",$xml);
?>
```

The following table lists the currently supported directory entry elements.

Element	Application

Title	Title of the phone book
Name	Contact name
Telephone	Contact phone number
Mobile	Mobile number
Other	Other phone numbers

Type http://localhost/Directory on a browser and press Enter. The telephone set may receive the pushed local phone book.

2.2.4 Push TEXTSCREEN

TextScreen.php document

```php
<?php
#
function push2phone($server,$phone,$data)
{
$xml = $data;
$post = "POST /xmlService? 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 .= "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n";

$xml .= "<FanvilConfiguration beep=\"yes\">\n";

$xml .= "<Item>mm.RTPInitialPort = 10001</Item>";

$xml .= "<Item>net.pppoe.User = user123</Item>";

$xml .= "<Item>net.pppoe.Password = password</Item>";

$xml .= "<Item>mm.G729PayloadLen = 1</Item>";

$xml .= "<Item>mm.DtmfPayloadType = 101</Item>";


push2phone("192.168.1.225","192.168.3.159",$xml);

#replace 10.1.3.8 with your Apache ip address

#replace 10.1.3.180 with your phone ip address

?>
```

Basic format:

<Item>mm.RTPInitialPort = 10001</Item>

<Item>net.pppoe.User = user123</Item>

<Item>net.pppoe.Password = password</Item>

<Item>mm.G729PayloadLen = 1</Item>

<Item>mm.DtmfPayloadType = 101</Item>

Note: Add the configuration items in the nc configuration file to TextScreen.php based on the standard format. In other words, copy the configuration items in the nc configuration file to <Item></Item> and change the values to the content to be pushed.

Type http://localhost/TextScreen.php on a browser and press Enter. The telephone set responds to relevant key functions.

2.2.5   Push EXECUTE

Once receiving an XML file in EXECUTE format, a telephone set executes the required action. Currently, the telephone set can execute only two actions: turn on the LED indicator or press keys. Specifically, the telephone set turns on or off the LED indicator or implement functions the same as pressing keys.

The telephone set executes actions based on the sorting sequence of ExecuteItems in the XML file.

Implementation of the LED indicator:

URI format: URI="Led:device|ledIndex=colour|blink"

Note: The separator | is helpful in identifying the attributes. In the preceding URI, the separator between "colour" and "blink" can be deleted or replaced with a space.

Attribute	Description	Value and Meaning
device	LED indicators, including LINE, DSSKEY, and POWER.	LINE: Line indicator DSSKEY: DSS key indicator POWER: power indicator
ledIndex	Numeric value. Identical devices are identified by different numeric values, for example, LINE1. If the device is the POWER indicator, ledIndex can be left blank because there is only one POWER indicator.	The value range depends on the number of line keys or DSS keys on the telephone set.
colour	The status of the LED indicator includes OFF, GREEN, RED, and PINK.	OFF: The indicator is off. GREEN: The indicator is green. RED: The indicator is red. PINK: The indicator is pink. Currently, only DSSKEY provides this function.
blink	The status includes OFF, ON, SLOWLY, and FAST.	OFF: The indicator is off. ON: The indicator is steady on. SLOWLY: The indicator blinks slowly. FAST: The indicator blinks fast.

Ececute.php document

```php
<?php
#
function push2phone($server,$phone,$data)
{
$xml = $data;
$post = "POST /xmlService? 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 .= "<FanvilIPPhoneExecute beep=\"no\">\n";

$xml .= "<ExecuteItem URL=\"Key:F_KEY=F_PARK\"/>\n";

$xml .= "</FanvilIPPhoneExecute>\n";

push2phone("192.168.1.220","192.168.1.222",$xml);

?>
```

Basic format:

<FanvilIPPhoneExecute beep="YES">

<ExecuteItem URI="Led:LINE1=ON">//Turn on line1 indicator.

<ExecuteItem URI="Led:DSSKEY1=GREEN FAST">Turn on DSSKEY and enables the indicator to blink in green fast.

</FanvilIPPhoneExecute>

Implementation of key response:

URI format: URI="Key:F_KEY= keyString"

F_KEY: keys on the keypad of the telephone set

keyString: key type. The following table lists the types of keys that can be implemented currently.

Key Response	Description
F_PBOOK	Enter the phone book.
F_REDIAL	Redial the last called number.
F_TRANSFER	Transfer an incoming call or transfer an ongoing call. Its function is the same as the transfer key.
F_LOCK	Enter the lock key screen.
F_JOIN	Join a call.
F_PICKUP	Pick up a call.
F_PARK	Park an incoming call.
F_LOR	Call back the latest missed call.

|	
F_AUTOREDIAL	Auto call back.
F_UNAUTOREDIAL	Cancel auto callback.
F_DND	Enter the DND setup screen.
F_MWI	Enter the voice mailbox.
F_SMS	Enter the SMS screen.
F_CFWD	Enter the call forwarding setup screen.
F_CALLERS	Enter the call records.
F_FLASH	Flash key. If there is only one call, press the flash key to set up another call. If there are two calls, press the flash key to switch to another call.
F_MEMO	Enter memos.
F_HOLD	Hold key.
F_HEADSET	Headset key.
F_SERVICE	Enter the XML phone book screen.
F_RELEASE	Release key.
F_POWER	Enter the power indicator setup screen.
F_SDTMF	Enter the Hide DTMF setup screen. During a call, the DTMF key is not displayed in plaintext.
F_PREFIX	The format is F_PREFIX:DIAL_NUMBER. After this key is pressed, the numbers following F_PREFIX are automatically entered.
F_HOTDESK	Enter the Hot Desk setup screen.

Type http://localhost/execute.php on a browser and press Enter. The telephone set responds to relevant key functions.

2.3 Setting Up a Push XML Environment

Install the AppServ software.

http://prdownloads.sourceforge.net/appserv/appserv-win32-2.5.5.exe?download.

The following figures show the installation steps.

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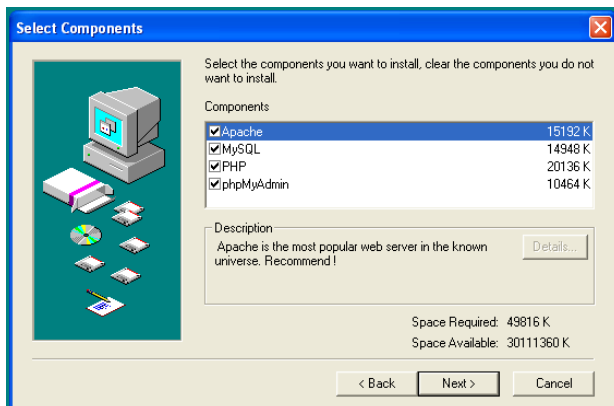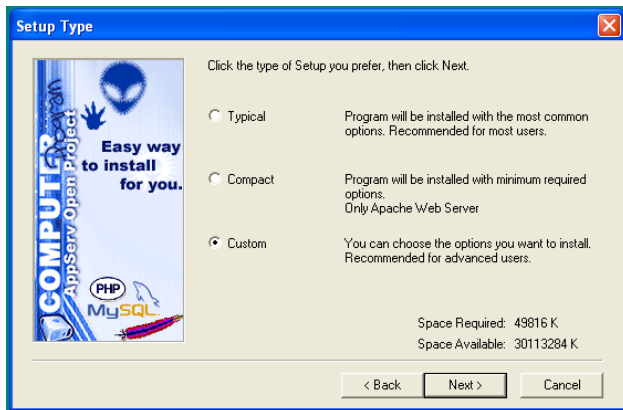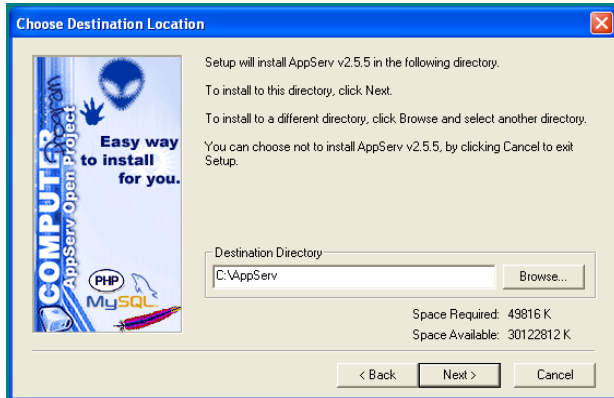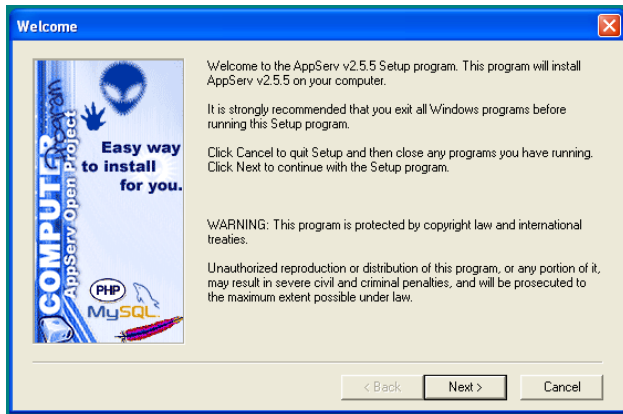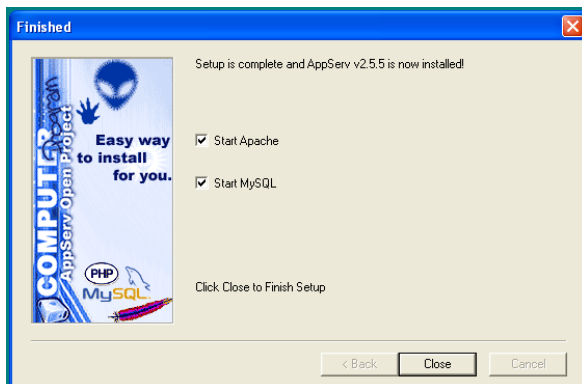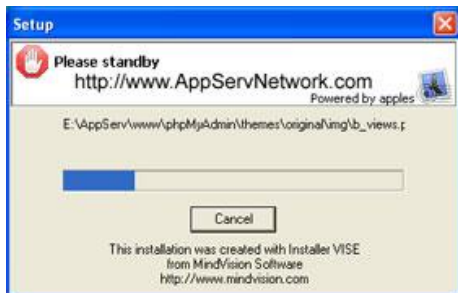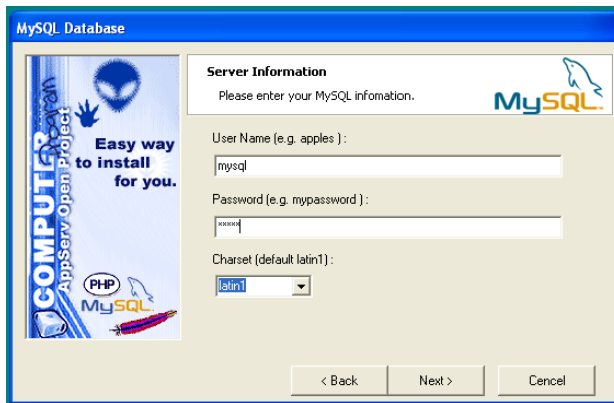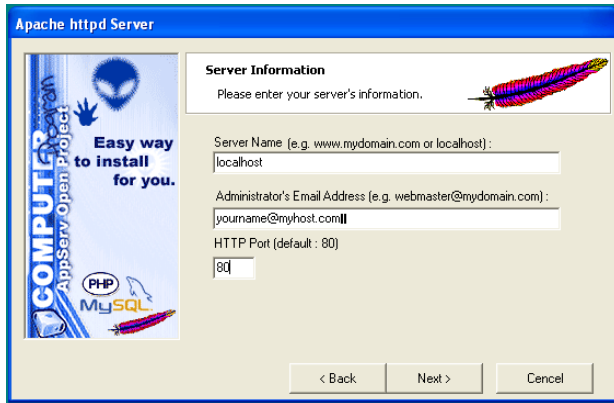
Visit the website http://localhost/ and the page shown in the following figure is displayed.
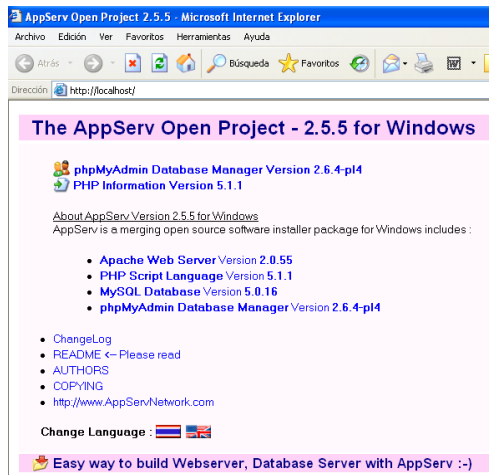
The environment can be used after being set up. Place a file to be pushed under the path C:\AppServ\www and run related commands on the webpage.

3   XML Browser

You can set a DSS key based on the predefined XML browser. Press the configured key and the IP telephone set will send a message to the server and wait for a response. After receiving a response, the telephone set parses and displays the response message. You can execute a configured pnp file containing XML information on a web browser and the message will also be displayed on the telephone set.

Xml browser object

Object		
TextMenu object	other	
	Dial:XXXX	
TextScreen object		
InputScreen		
Directory object		
Execute object	TextMenu URL	
	Dial:XXXXX	
	Led:XXXX=on/off/slowflash/fastflash	
	Key:XXXX	
	Command: Reboot	
	Command: ClearDirectory	
Customizable soft keys		
XML-Browser KEY		
Block XML When Call		
XML SIP Notify		

3.1   Parameters

Parameter	Description
XML Browser	XML browser key. If the value is set to xml URL, press this key on the telephone set to download the XML file and display related content.
VALUE	Place an XML file in http/https server and set the value to the URL of the XML file.

3.2 Configuration Mode

Add the XML Browser key type in DSS Key and enter the URL of the XML file in Value.

Key	Type	Name	Value	Subtype	Line	PickUp Number
DSS Key 1-1	XML Browser ▼		http://172.16.90	None ▼	SIP1 ▼	

Press this function key on the telephone set to send an HTTP Get command.

http					
	Source	Destination	Protocol	Length	Info
7055	172.16.21.158	172.16.6.120	HTTP	206	GET /TextMenu.xml HTTP/1.1
8042	172.16.6.120	172.16.21.158	HTTP	54	HTTP/1.1 401 \316\264\312\332\310\250 (text/html)
7079	172.16.21.158	172.16.6.120	HTTP	241	GET /TextMenu.xml HTTP/1.1
7455	172.16.6.120	172.16.21.158	HTTP	983	HTTP/1.1 200 OK (application/octet-stream)

3.2.1 Parameter Description

3.3 XML File Formats

The following content should be contained:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
```
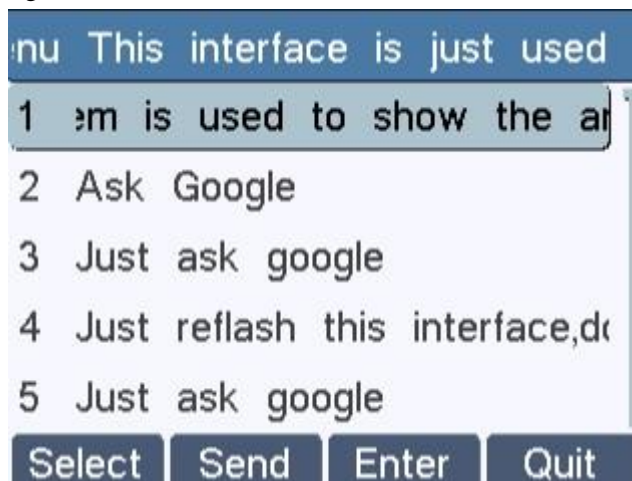
or

```
<?xml version="1.0" encoding="UTF-8"?>
```

3.3.1 TextMenu.xml

Place the text on the HTTP server, enter the corresponding URL as the XML key value, for example, http://172.16.6.120:8080/ TextMenu.xml, and press the function key. See the following figure.

TextMenu.XML format:

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```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneTextMenu style="numbered" Beep="no"
Timeout="30" LockIn="no">
<Title wrap="yes">Phone Services</Title>
<MenuItem>
<Prompt>Ask Google</Prompt>
<URI>http://10.2.11.158/Fanvil/google/google.php?user=</URI>
<Dial>456</Dial>
<Selection>12345</Selection>
</MenuItem>
<MenuItem>
<Prompt>CNN News</Prompt>
<URI>http://10.2.11.158/Fanvil/rss/rss.php?feed=cnn</URI>
<Dial>1001</Dial>
<Selection>4567</Selection>
</MenuItem>
</FanvilIPPhoneTextMenu>
```

TextMenu XML parameters:

Parameter	Position	Type	Value	Description
FanvilIPPh oneTextMe nu	Root tag	Mandatory	none	Root element of TextMenu object
defaultInde x	Root tag	Optional	Integer	Cursor position. If no value is set, the default value 1 prevails.
style	Root tag	Optional	"numbered " "none"	numbered (default): A sequence number is added before each menu item. none: No sequence number is added.
Beep	Root tag	Optional	yes no	Whether to play an announcement during push

wrapList	Root tag	Optional	yes no	If the title exceeds one line, it is displayed on multiple lines or with an ellipsis.
Timeout	Root tag	Optional	Integer	If no operation is performed during the specified time, the telephone set exits the XML screen. If the value is set to 0, the telephone set does not exit. The default value is 45.
cancelAction	Root tag	Optional	URI	Define the URI to be called when the user cancels the XML object.
LockIn	Root tag	Optional	yes no	yes: After the XML screen is displayed, the telephone set gives no response when certain keys are pressed. For example, the number keys and function keys. no: The cursor is located when a number key is pressed and the telephone set gives responses when function keys are pressed.
Title	Body	Mandatory	string	The title of the text menu.
wrap	Title tag	Optional	yes no	yes: If the menu title exceeds one line, it is displayed on multiple lines. No: If the menu title exceeds one line, it is displayed with an ellipsis.
MenuItem	Body	Mandatory	none	The number of menu items ranges from 1 to 30.
Prompt	MenuItem body	Mandatory	string	Label of the menu item.

URI	MenuItem body	Mandatory	URI	URI to be used if the user presses the Select soft key or OK/√ key with the cursor on this menu item. Select this menu item and press OK to access the specified URI.
dial	MenuItem	Optional	Phone	Number called by the telephone set when the handle is picked up or the hands-free key is pressed.
Selection	MenuItem body	Optional	string	Set Selection=xxx. If the URI is an HTTP URL, when the user presses OK or Select, the telephone set adds the information "?selection= xxx" behind the URI in the HTTP Get message. Note: If the HTTP URL already contains a question mark (?), an ampersand is used to distinguish the URI from selection. If no selection is carried, no suffix is added. If there are multiple selection records, multiple suffixes need to be added. For example: URI is http://10.1.0.105/menu1.x ml? and Selection is 0&menu_pos=1, the telephone set sends http://10.1.0.105/menu1. xml?&selection=0&menu. _pos=1"

SoftKey	Body	Optional	string	See section 4.3.7.

3.3.2 TextScreen

Place the text on the HTTP server, enter the corresponding URL as the XML key value, for example, http://172.16.6.120:8080/ TextScreen.xml, and press the function key. See the following figure.
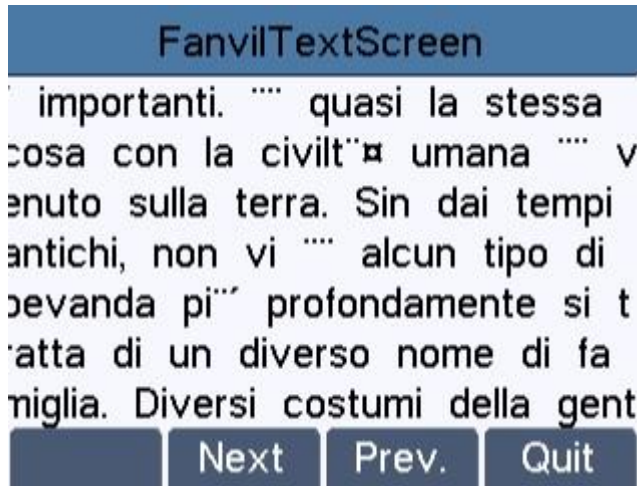
TextScreen XML format:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneTextScreen 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 -->
</FanvilIPPhoneTextScreen >
```

TextScreen parameters:

Parameter	Position	Type	Value	Description
doneAction	Root tag	Optional	URI	URI to be executed when the user presses OK.
Title	Body	Mandatory	string	The title of the screen text.

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Text	Body	Mandatory	string	The content of the screen text. (a maximum of 2,000 bytes)
SoftKey	Body	Optional	string	See section 4.3.7.

3.3.3 InputScreen xml

Place the text on the HTTP server, enter the corresponding URL as the XML key value, for example, http://172.16.6.120:8080/ InputScreen.xml, and press the function key. See the following figure.
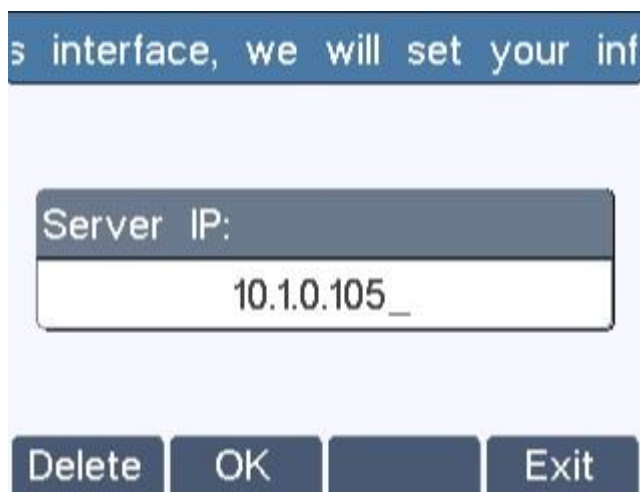
InputScreen XML document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneInputScreen
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

<Selection>Selection</Selection>

<Default>Default Value</Default>

</InputField>

<!--Additional input field Items may be added -->

<!--Additional soft key items may be added -->

</FanvilIPPhoneInputScreen >

InputScreen XML parameters

Parameter	Position	Type	Value	Description
FanvilIPPhoneInputScreen	Root tag	Mandatory	None	Root element
Type	Root tag	Mandatory	"IP" "dateUS" "string" "number" "timeUS" "timeInt" "dateInt"	Input type. Data input options: IP string(defaul) number timeUS, 12hour format

3.3.4   TextConfig.xml

Place the text on the HTTP server, enter the corresponding URL as the XML key value, for example, http://172.16.6.120:8080/ TextConfig.xml, and press the function key. See the following figure.

TextConfig.xml format:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneConfiguration
        Beep="no"
        setType="config">
    <Item>sip.line.1.PhoneNumber = 4311</Item>
    <Item>sip.line.1.DisplayName = 4311</Item>
    <Item>sip.line.1.RegAddr = 172.16.1.2</Item>
    <Item>sip.line.1.RegUser = 4311</Item>
    <Item>sip.line.1.RegPswd = 4311</Item>
    <Item>sip.line.1.RegEnabled = 1</Item>
</FanvilIPPhoneConfiguration>
```

3.3.5   Directory.xml

Place the text on the HTTP server, enter the corresponding URL as the XML key value, for example, http://172.16.6.120:8080/ Directory.xml, and press the function key. See the following figure.
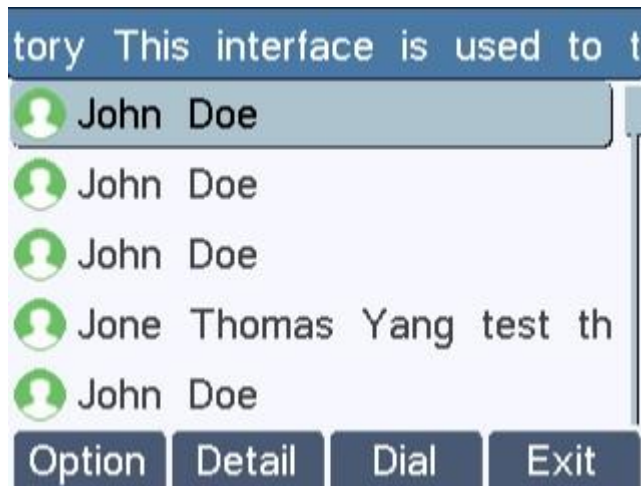
Directory.xml format:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneDirectory 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 -->
</FanvilIPPhoneDirectory>
```

The following table lists the valid values.

Parameter	Position	Type	Value	Description
FanvilIPPh oneDirecto ry	Root tag	Mandatory	none	Root element
next	Root tag	Optional	URI	URI to be accessed by the telephone set when the user presses Next.
previous	Root tag	Optional	URI	URI to be accessed by the telephone set when the user presses Previous.

Title	Body	Mandatory	string	The title of the address book.
MenuItem	Body	Mandatory	none	Address item. (value range: 1 to 30)
URI	MenuItem body	Mandatory	URI	Such as numbers
SoftKey	Body	Optional	string	See section 4.3.7.

3.3.6   Execute.xml

Format

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FanvilIPPhoneExecute Beep="yes">
<ExecuteItem URI="Command: Reboot"/>
</FanvilIPPhoneExecute>
```

If the preceding document is executed, the telephone set will be restarted.

The following table lists the valid values.

Parameter	Position	Type	Value	Description
FanvilIPPh oneExecute	Root tag	Mandatory	none	Root element
ExecuteIte m URI	ExecuteIte m tag	Mandatory	URI	Operations of commands, for example, invoking users and downloading data from the server based on the URL

Name	URL Value	Function
Supported URI	http(s)://myserver.com/TextMenu.xml	Execute the TextMenu.xml object on myserver.com. If multiple objects are executed, the object to be restarted needs to be split from others. Otherwise, other objects will not be executed after a restart.
	Dial:XXXXX	Dial a number using the first available account. If this command is executed when a call is invoked, the first call is automatically held.
	Led:XXXX=on/off/slowflash/fastflash	Control the LED indicator based on the issued command.
	Key:XXXX	Execute the operation of the XXXX key.

Phone Reset	Command: Reset	Restore factory settings when the mobile phone is idle.
Phone Fast Reboot	Command: Reboot	Restart the mobile phone when it is idle.
	Command: ClearDirectory	Clear the contacts list.
	Command: ClearRedialList	Clear placed calls list.

LED specifications in Led:XXXX=on/off/slowflash/fastflash:

Setting Method	Indicator	Example

EXP-%d-%d2-%s	%d: Sequence number of the extension module. Value range: 1–6 %d2: Sequence number of a key of the extension module. Value range: 1–40 %s: Color. Value options: RED, GREEN and ORANGE (for EXP39 and EXP40)	Led:EXP-2-3-RED=on: Enable the indicator of the third key of the second extension module to be on in red.
LINE%d	%d: Sequence number of a line key. Value range: 1–6 (depending on the telephone set model)	Led:LINE3=on: Turn on the LED of line key3.
LINE%d_%s	%d: Sequence number of a line key. Value range: 1–29 (for SIP-T48G)	For example, Led:LINE5_GREEN=on. Change the color of line key5 to green.
MEMO%d_%s	%d: Sequence number of a memory key. Value range: 1–10 %s: Color. Value options: RED, GREEN and ORANGE	Led:MEMO5_GREEN=on: Change the LED of memory key5 to green.
HEADSET	Headset indicator LED	
HANDFREE	Hands-free indicator LED	
POWER	Power indicator LED	

XXXX specifications in Key:XXXX:

Setting Method	Indicator	Example
OFF_HOOK	Off hook	Key: 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	Press the key once to enter the volume adjustment screen and multiple times to increase the volume.	
DECREASE	Press the key once to enter the volume adjustment screen and multiple times to decrease the volume.	
REDIAL	Redial key	
HOLD	Hold the line	
MUTE	Mute	
CONFERENCE	Conference	
TRANSFER	Transfer	
SMS	Message key	
PHONEBOOK	Remote phone book	
HEADSET	Activate the headset mode.	HEADSET
HANDFREE	Hands-free key Note:	HANDFREE
LINE%d	Line key	Key:LINE2
HOTKEY%d	Soft key, value range 1–4	
MEMORY%d	Memory key, value range 1–10	
KEY_%d	Digit key, value range 0–9	
STAR	'*' key	
POUND	'#' key	

3.3.7 Configuration

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<FanvilIPPhoneConfiguration

        Beep = "yes/no"

    >

      <Item>parameter= value</Item>

      <!--Additional Configuration Items may be added (up to 1300)-->

</FanvilIPPhoneConfiguration>
```

3.3.8 Customizable soft keys

Document format:

<?xml version="1.0" encoding="ISO-8859-1"?>

<FanvilIPPhoneTextMenu

        defaultIndex=""

                style="numbered"

                Beep="yes"

                cancelAction="Wav.Play:http://10.1.0.27:9/auto/zhongguo.wav"

                wrapList="yes"

                    Timeout="50"

                LockIn="yes"

    >

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

<MenuItem>

<Prompt>Just reflash this interface,do you want to flash</Prompt>

<URI>http://10.1.0.105/menu.xml</URI>

<Dial>1567</Dial>

</MenuItem>

Parameter	Type	Value	Description
SoftKey	Mandatory	none	Soft key
Index	Mandatory	Integer	Position of the software on the telephone set (value range: 1–6)
Label	Mandatory	String	Soft key label
URI	Mandatory	String	Specific soft key

If the soft keys option is configured in an XML file, the configured soft key is displayed in the corresponding position on the XML page. If this option is not configured, the default soft key is displayed.

The following table lists the available key:action values for each type of XML object type.

Label	URI	Function
TextMenu Object		
Select	SoftKey:Select	Select the defined Selection.
Exit	SoftKey:Exit	Exit the XML screen.
Send	SoftKey:Dial	Call the number of the menu item over which the cursor is hovering.
TextScreen Object		
Exit	SoftKey:Exit	Exit the XML screen.
InputScreen Object (soft keys cannot be customized on SIP-T48G IP phones)		
BackSpace	SoftKey:BackSpace	Delete the characters before the cursor in the text box.
Submit	SoftKey:Submit	Submit the URI command and input content.

Label	URI	Function
NextSpace	SoftKey:NextSpace	Insert a space in the position of the cursor in the text box.
Dot	SoftKey:Dot	Insert a period (.) in the position of the cursor in the text box.
2aB	SoftKey:ChangeMod e	Input method.
Exit	SoftKey:Exit	Exit the XML screen.
Directory Object		
Send	SoftKey:Dial	Call the number of the menu item over which the cursor is hovering.
Previous	SoftKey:Previous	Execute the URI defined by Previous.

Next	SoftKey:Next	Execute the URI defined by Next.
Exit	SoftKey:Exit	Exit the XML screen.
FormattedTextScreen Object		
Exit	SoftKey:Exit	Exit the XML screen.
ImageScreen Object		
Exit	SoftKey:Exit	Exit the XML screen.
ImageMenu Object		
Exit	SoftKey:Exit	Exit the XML screen.

3.3.9 Block XML When Call

Add the Block XML in Calling configuration item on the webpage.

Block XML in Calling	Disabled ▼

Set Block XML in Calling to Enabled. Press the XML browser key during a call and prevent the telephone set to perform any XMl related operations. The telephone set displays the message "Blocked Push XML When Call".

Set Block XML in Calling to Disabled. The telephone set gives the corresponding response.

3.3.10 XML SIP Notify

Add the configuration item SIP Notify XML and enable it. The telephone set displays related information when receiving related notification content.

SIP Notify XML	Enable ▼

Define a notify event. An XXXX-xml event can be executed. XXXX indicates any value, for example, Fanvil-xml.
In NOTIFY, the XML text format is the same as the XML file format. The following is an example.

NOTIFY sip:169@172.16.7.191:5060 SIP/2.0
Via: SIP/2.0/UDP 172.16.1.4:5060;branch=z9hG4bK2e75526a
Max-Forwards: 70
From: "Unknown" <sip:Unknown@172.16.1.4>;tag=as1e369e2d

To: <sip:169@172.16.7.191:5060>

Contact: <sip:Unknown@172.16.1.4:5060>

Call-ID: 522d95ac7de481be32768fe63c6b6f06@172.16.1.4:5060

CSeq: 102 NOTIFY

Max-Forwards: 70

Event: Fanvil-xml

Content-Length: 376

Content-Type: application/xml


```
<?xml version="1.0" encoding="UTF-8"?>
<FanvilIPPhoneTextScreen          Beep="yes"          defaultIndex="3"
cancelAction="http://10.1.0.105/cancel.php"     doneAction="http://10.1.0.105/menu.php"
Timeout="45000" LockIn="no">
<Title wrap="yes">FanvilTextScreen</Title>
<Text>123456789</Text>
<SoftKey index="4"><Label>Quit</Label><URI>SoftKey:Exit</URI></SoftKey>
</FanvilIPPhoneTextScreen>
```