

# VP2009 Auto Provision Manual

## Contents

1. Summary .....	3
2. Obtain the server address .....	3
a) Pushed by PnP servers .....	3
b) Detect DHCP custom option .....	4
c) Detect DHCP Option 66 .....	4
d) Detect DHCP Option 43 .....	4
e) Detect the phone flash .....	5
3. Download configuration files .....	5
4. Resolve and apply the configurations .....	6
5. Do other updates .....	8
a) Update Firmware .....	8
b) Upload and Replace Video .....	8
c) Upload Photo and replace photo .....	9
d) Upload Local Phone Book .....	10
e) Upload Ringtone .....	10
f) Customize User Interface .....	10
g) Change Menu Icon .....	11
h) Configure Picture Dial Feature .....	12
i) Upload and delete HTTPS certificates .....	13
6. Appendix A .....	14
a) How to edit dialnow.xml? .....	14
b) How to edit dialplan.xml? .....	15
c) How to edit the doorphonedata.xml? .....	15

---

d) How to edit the dsskey.xml?.....	17
e) How to edit the ipcameradata.xml? .....	19
f) How to edit the picturedail.xml? .....	21
g) How to edit the remotebook.xml? .....	23
h) How to edit the softkey.xml?.....	23
i) How to edit the XML of the UI folder?.....	27
7. Appendix B .....	28
a) Description of configuration parameters in CFG file .....	28

## 1. Summary

The presented document will show you how auto provision works and how to make auto provision work. The process of a successful auto provision is:

1. Obtain a server address in which store the configuration files.
2. Download the configuration files from the configured server.
3. Resolve and apply the configurations written in the configuration file.
4. Do other updates, for example the firmware updating.

## 2. Obtain the server address

When the phone boots up, it will go by the following process to try to obtain the server address:

PnP server → DHCP custom option → DHCP option 66 → DHCP option 43 → Phone Flash

The following are the details of each process:

### a) Pushed by PnP servers

The screenshot shows the 'Autoprovision' settings page in the Yealink phone web interface. The page is divided into 'Basic' and 'Advanced' sections. The 'PNP Active' option is highlighted with a red box and is set to 'On'. Other settings include 'DHCP Active' (On), 'Custom Option(128~254)' (empty), 'Server URL' (empty), 'User Name' (empty), 'Password' (empty), 'Common AES Key' (empty), 'MAC-Oriented AES Key' (empty), 'Power On' (On), 'Repeatedly' (Off), 'Interval(Minutes)' (60), 'Weekly' (On), 'Time' (00:00 -- 06:00), and 'Day of week' (all days checked).

Plug 'n Play (PnP) provides a proprietary method to enable "Auto Provisioning". If PnP config is enabled, the phone will send SIP SUBSCRIBE messages to a multicast address when it boots up. Any SIP server understanding that message will reply with a SIP NOTIFY message containing the Auto Provisioning Server URL where the phones can request their configuration. Modern SIP PBXs/Proxies can provide the PnP configuration data. Please refer to the manual of your PBX/Proxy. This kind of auto provision is mainly used under some possible circumstance like your phones have no default provisioning server set and are not able to detect DHCP options (when they use static IP address). Pay attention to the point that **PnP config** has the highest priority in obtaining the provisioning server address, if it fails to get any information from PnP server, it will go to the other processes.

## b) Detect DHCP custom option

It must be configured on the phone by web management:

The screenshot shows the 'Autoprovision' configuration page for a Yealink phone. The page has tabs for 'Status', 'Account', 'Network', 'Phone', 'Contacts', 'Upgrade', and 'Security'. Under the 'Phone' tab, there are sub-tabs for 'Basic', 'Advanced', and 'TR069'. The 'Autoprovision' section includes the following settings:

- PNP Active:  On  Off
- DHCP Active:  On  Off
- Custom Option(128~254):
- Server URL:
- User Name:
- Password:
- Common AES Key:
- MAC-Oriented AES Key:
- Power On:  On  Off
- Repeatedly:  On  Off
- Interval(Minutes):
- Weekly:  On  Off
- Time:  :  --  :
- Day of week:
  - Sunday
  - Monday
  - Tuesday
  - Wednesday
  - Thursday
  - Friday
  - Saturday

A valid **Custom Option** is from 128 to 254. The **Custom Option Type** must be in accordance with the one defined in the DHCP server. If the phone fails to get any information from custom option, it will go to detect DHCP Option 66.

## c) Detect DHCP Option 66

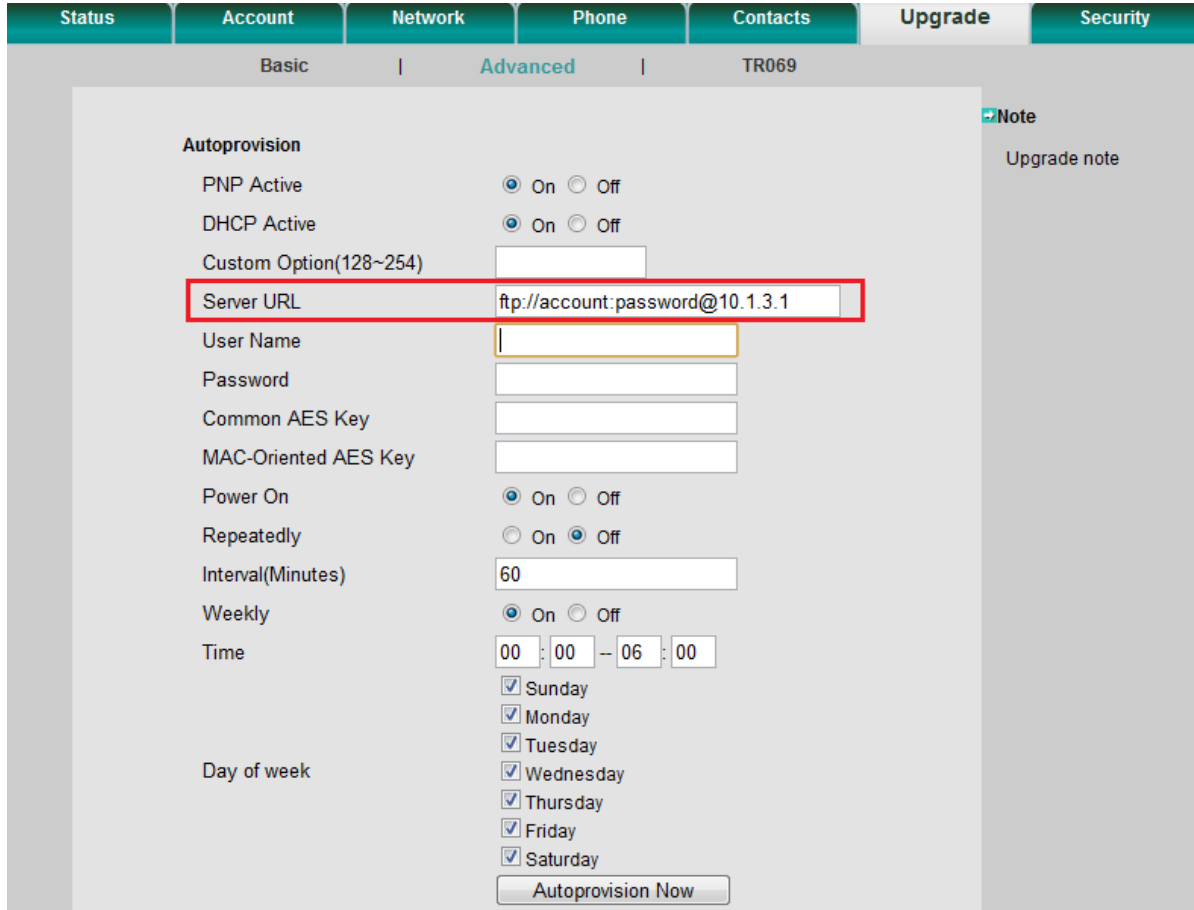
If the DHCP option is enabled, Yealink phones will check this option by default. If the phone fails to get any information from DHCP Option 66, it will go to detect DHCP Option 43.

## d) Detect DHCP Option 43

If the DHCP option is enabled, Yealink phones will check this option by default. If the phone fails to get any information from DHCP Option 43, it will go to detect the phone flash.

**e) Detect the phone flash**

The value is what you can read from the web management of the phone:



The supported protocols of a URL are: HTTP/HTTPS/FTP/TFTP. For example, the following settings will make the phone access to FTP server ftp://account:password@10.1.3.1. You can also fill in the Server URL as ftp://10.1.3.1 and fill the account in the following User Name and the password in Password. If the phone fails to get any information from phone flash, the current round of obtaining server address will stop here.

Note: there are 4 kinds of auto provision setting:

**Power on**, obtain the server address once the phone is power on.

**Repeatly**, obtain the server address with the interval configured.

**Weekly**, obtain the server address in the configured period.

**Autoprovision Now**, obtain the server address now.

While the **Power on** option is selected, phone will go through the whole process. Else, it will go to detect the phone flash only.

### 3. Download configuration files

There are 2 configuration files both of which are CFG formatted that the phone will try to download from the server during provisioning. We call them Common CFG file and MAC-Oriented CFG file. The Common CFG file will be effectual for all the VP2009 phones. However, a MAC-Oriented CFG file will only be effectual for the specific phone which can be told by its MAC address. A MAC-Oriented CFG file is named after a MAC address of the specific phone. The names of the Common CFG file for VP2009 is: y00000000023.cfg

For instance, for a VP2009 whose MAC address is 001565113af8, the 2 configuration files for it will be: y00000000023.cfg and 001565113af8.cfg.

To have this name division on configuration files will help when doing same auto provision to mass phones. For example, assumed that you have 1000 pieces of VP2009 and you want to update firmware for all phones, you just need to prepare only one y00000000023.cfg which defines the firmware update request, then put it onto the provisioning server.

**Note:**

1. In case that the phone is on a live call, it will keep on asking for the CFG files with an interval of 5 minutes till the call is end.
2. If there are both the Common CFG file and the MAC-Oriented CFG file on the server, the phone will get the Common CFG file first and update the configuration and then get the MAC-Oriented and update the configuration. If the configuration is different in Common CFG file and MAC Oriented CFG file, the final configuration will be the same as MAC-Oriented CFG file. For Example, if the configuration of time zone in the Common CFG file is +3, and in MAC-Oriented CFG file the configuration of time zone is +5, the final configuration of time zone will be +5 after Auto provision.

## 4. Resolve and apply the configurations

If the downloaded configuration files have been AES encrypted, the AES Keys will be needed. The **Common AES Key** is for decrypting the Common CFG file. The **MAC-Oriented AES Key** is for decrypting the MAC-Oriented CFG file. The keys must be 16 bytes and the supported characters are: 0 ~ 9, A ~ Z, a ~ z and the following special characters: # \$ % \* + , - . : = ? @ [ ] ^ \_ { } ~

Status	Account	Network	Phone	Contacts	Upgrade	Security
Basic		Advanced		TR069		
<b>Autoprovision</b>						<b>Note</b> Upgrade note
PNP Active		<input checked="" type="radio"/> On <input type="radio"/> Off				
DHCP Active		<input checked="" type="radio"/> On <input type="radio"/> Off				
Custom Option(128-254)		<input type="text"/>				
Server URL		<input type="text" value="ftp://account:password@10.1.3.1"/>				
User Name		<input type="text"/>				
Password		<input type="text"/>				
Common AES Key		<input type="text" value="1234567890123456"/>				
MAC-Oriented AES Key		<input type="text" value="1234567890123456"/>				
Power On		<input checked="" type="radio"/> On <input type="radio"/> Off				
Repeatedly		<input type="radio"/> On <input checked="" type="radio"/> Off				
Interval(Minutes)		<input type="text" value="60"/>				
Weekly		<input checked="" type="radio"/> On <input type="radio"/> Off				
Time		<input type="text" value="00:00"/> - <input type="text" value="06:00"/>				
Day of week		<input checked="" type="checkbox"/> Sunday <input checked="" type="checkbox"/> Monday <input checked="" type="checkbox"/> Tuesday <input checked="" type="checkbox"/> Wednesday <input checked="" type="checkbox"/> Thursday <input checked="" type="checkbox"/> Friday <input checked="" type="checkbox"/> Saturday				
<input type="button" value="Autoprovision Now"/>						

In a CFG file, there are texts defining configurations. Here's a brief description to the texts. Take the AES\_KEY section in the following picture for example.

```

y00000000022. cfg X
1 [ cfg:/rundata/config/system.ini,reboot=1 ]
2 ;;Auto Provision
3 AutoProvision.bEnablePowerOn = 0
4 AutoProvision.bEnableR:245 G:255 B:252
5 AutoProvision.strWeeklyMask = 0123456
6 AutoProvision.strWeeklyBeginTime = 02:00
7 AutoProvision.strWeeklyEndTime = 03:00
8 AutoProvision.bEnableRepeat = 0
9 AutoProvision.nRepeatMinutes = 60
10 AutoProvision.bEnablePNP = 0
11 AutoProvision.strPNPMulticastIP = 224.0.1.75
12 AutoProvision.bEnableDHCPOption = 0
13 AutoProvision.listUserOptions =
14 AutoProvision.strServerURL = http://blank
15 AutoProvision.strKeyAES16 =
16 AutoProvision.strKeyAES16MAC =
17
18
  
```

The following texts are system-defined and cannot be changed manually; otherwise it will cause a failure to auto provision:

1. The directory of the section [ cfg:/rundata/config/system.ini,reboot=1 ]
2. The parameters AutoProvision.strKeyAES16 and AutoProvision.strKeyAES16MAC

You can only specify a valid value after the equal sign “=”. This is a section for specifying the AES keys. So you can make it like follow to specify 1234567890123456 for both **Common AES Key** and **MAC-Oriented AES Key**:

```
[ cfg:/rundata/config/system.ini,reboot=1 ]
AutoProvision.strKeyAES16 = 1234567890123456
AutoProvision.strKeyAES16MAC = 1234567890123456
```

The lines start with `;;` are instructions, they don't make any sense to the configuration, just for easy understanding when read by certain person. For the detailed instruction of the parameters written in the CFG files, please refer to the **Appendix A**.

Note: If the phone finds that the downloaded CFG files are completely the same as it is applied the very last time, the auto provision will stop here. The phone knows it by comparing the MD5 value of the downloaded CFG files and the latest applied CFG files.

## 5. Do other updates

It depends on the texts written in the CFG files to decide whether to make other updates. There are mainly the following other updates:

### a) Update Firmware

The section defining request for firmware update in the CFG files:

```
#####
[ rom:Firmware]
url =
#####
```

An example:

```
[ rom:Firmware]
url = ftp://pablo:123@192.168.0.231/VP2009/23.40.0.12.rom
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server: <ftp://192.168.0.231>, then download and upgrade the firmware 23.40.0.12.rom from folder VP2009.

### b) Upload and Replace Video

The section defining request for video upload in the CFG files:

```
#####
[ bin:/rundata/userdata/AD/filename.mov,reboot=0 ]
url =
#####
```

An example:

```
[ bin:/rundata/userdata/AD/myvideo.mov,reboot=0 ]
url = ftp://pablo:123@192.168.0.231/VP2009/myvideo.mov
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the video named *myvideo.mov* from folder VP2009. Please be noted that the file name of video is without blank space and special characters.

**The section defining request for replacing Video in the CFG files:**

```
#####
[ bin:/rundata/userdata/AD/filename1.mov, onchanged=system( rm /rundata/userdata/AD/filename2.mov), reboot=1
]
```

url =

```
#####
```

In the above, the **onchanged=system(rm /rundata/userdata/AD/**filename2**.mov)** is for deleting a movie named **filename2.mov** in the route of **rundata/userdata/AD/**filename2**.mov**. **Note there is a space after between rm and /rundata.**

At the same time you have to upload one video, you have to give the right url to upload a Video.

**c) Upload Photo and replace photo**

The section defining request for photo uploads in the CFG files:

I) Upload Screensaver Photo

```
#####
```

```
[ bin:/rundata/userdata/ePhoto/XXX.XXX,reboot=0 ]
```

url =

```
#####
```

II) Upload Wallpaper

```
#####
```

```
[ bin:/rundata/userdata/wallpaper/XXX.XXX,reboot=0 ]
```

url =

```
#####
```

An example:

```
[ bin:/rundata/userdata/wallpaper/mywallpaper.jpg,reboot=0 ]
url = ftp://pablo:123@192.168.0.231/VP2009/mywallpaper.jpg
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the wallpaper named *mywallpaper.jpg* from folder VP2009. Please be noted that the file name of wallpaper is with blank space and special characters.

III) Replace Screensaver Photo

```
#####
```

```
[ bin:/rundata/userdata/ePhoto/AAA.AAA, onchanged=system(rm /rundata/userdata/ePhoto/BBB.BBB), reboot=1 ]
```

url =

```
#####
```

In the above, the **onchanged=system(rm /rundata/userdata/ePhoto/BBB.BBB)** is for deleting the screensaver named **BBB.BBB** in the route of **/rundata/userdata/ePhoto/BBB.BBB**. **Note there is a space after between rm and /rundata.**

At the same time you have to upload one photo, you have to give the right url to upload a photo.

IV) Replace Wallpaper

#####

```
[ bin: /rundata/userdata/wallpaper /AAA.AAA, onchanged=system(rm /rundata/userdata/wallpaper /BBB.BBB),
reboot=1 ]
```

url =

#####

In the above, the **onchanged=system(rm /rundata/userdata/wallpaper /BBB.BBB)** is for deleting the Wallpaper named BBB.BBB in the route of **/rundata/userdata/wallpaper /BBB.BBB**. **Note there is a space after between rm and /rundata.**

At the same time you have to upload one Wallpaper, you have to give the right url to upload the wallpaper.

**d) Upload Local Phone Book**

The section defining request for Local Phone Book uploads in the CFG files:

#####

```
[bin:/rundata/data/contactData.xml,reboot=0]
```

url =

#####

An example:

```
[bin:/rundata/data/contactData.xml,reboot=0]
```

```
url = ftp://pablo:123@192.168.0.231/VP2009/contactData.xml
```

Note that the name has to be *contactData.xml*.

The format of the XML file is different from the file which you use in “Remote Phone Book”. It’s the same as the “Local Phone Book”. You can export an existed “Local Phone Book” to see what the format is exactly.

About “Remote Phone Book” update, please refer to the **Appendix A** as below.

**e) Upload Ringtone**

This section defines request for Ringtone uploading in the CFG files:

#####

```
[ bin:/rundata/userdata/sound/XXX.wav,reboot=0]
```

url =

#####

An example:

```
[ bin:/rundata/userdata/sound/my.wav,reboot=0]
```

```
url = ftp://pablo:123@192.168.0.231/VP2009/my.wav
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, then download the ringtone named *my.wav* from folder VP2009. Please be noted that the file name of ringtone is without blank space and special characters. The recommended format of ringtone is PCMA, 8 bit, 8KHZ and single track.

**f) Customize User Interface**

The section defining phone menu XML file uploads in the CFG files:

#####

```
[bin:/phone/resource/ui-config/xxx.xml,reboot=1 ]
```

```
url =
```

```
#####
```

Note: The xxx.xml should be the corresponding XML file name you want to upload.

In VP2009, each phone menu is corresponding to a XML file, there is desktop icon bar menu, desktop icon view menu, media menu, application menu, setting menu. Users can customize these menus by editing the corresponding XML file. Please contact [support@yealink.com](mailto:support@yealink.com) to get the UI XML files.

In XML file, each item is corresponding to a menu icon. User can add or remove the menu icon via add or remove the item line in XML file.

Only call feature menu and setting menu have no limitation of the number of items, and all icons will be ordered by the item sequence listed in menu XML file.

An example:

Move “account” icon to “Media” menu. Remove the line `<item title="Account"`

```
icon="menu_account.png" action="OpenPage(Account Setting)" userLevel="admin" />
```

in setting.xml file and copy to file media.xml, so the content of media.xml will be:

```
<RootMenu title="Media" icon="menu_media.png">
```

```
<item title="Account" icon="/phone/resource/theme/default/bmp/menu/menu_account.png"
```

```
action="OpenPage(Account Setting)" userLevel="admin" />
```

```
<item title="Photo" icon="menu_photo.png" action="OpenXml(media-photo.xml)" />
```

```
<item title="Video" icon="menu_video.png" action="OpenXml(media-video.xml)" />
```

```
</RootMenu>
```

Then upload setting.xml and servicecenter.xml files:

```
[ bin:/phone/resource/ui-config/setting.xml,reboot=1 ]
```

```
url = ftp://pablo:123@192.168.0.231/VP2009/setting.xml
```

```
[ bin:/phone/resource/ui-config/media.xml,reboot=1 ]
```

```
url = ftp://pablo:123@192.168.0.231/VP2009/media.xml
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the files setting.xml and media.xml from folder VP2009. Please be noted that **the XML file name can't be changed.**

## g) Change Menu Icon

The section defining request for menu icon changes in the CFG files:

```
#####
```

```
[ bin:/phone/resource/theme/default/bmp/menu/xxx.png,reboot=1 ]
```

url =

#####

An example:

[ bin: /phone/resource/theme/default/bmp/menu/menu\_history.png,reboot=1 ]

url = ftp://pablo:123@192.168.0.231/VP2009/menu\_history.png

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the icon menu\_history.png from folder VP2009. Please be noted that the file name of customized icon must keep same as the default file name defined in the phone, and the icon should be a 143\*132 png file. Please contact [support@yealink.com](mailto:support@yealink.com) to get the default icon files.

## h) Configure Picture Dial Feature

### I) Upload Pictures

The section defining request for picture uploads in the CFG files:

#####

[ cfg: /rundata/picture-dial/xxx.png,reboot=0 ]

url =

[ cfg: /rundata/picture-dial/xxx.jpg,reboot=0 ]

url =

#####

An example:

[ bin: /rundata/picture-dial/picture1.png,reboot=0 ]

url = <ftp://pablo:123@192.168.0.231/VP2009/picture1.png>

[ bin: /rundata/picture-dial/picture2.jpg,reboot=0 ]

url = <ftp://pablo:123@192.168.0.231/VP2009/picture2.jpg>

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the picture1 and picture2 from folder VP2009. Please be noted that the picture should be a 120\*170 png or jpg file.

### II) Edit Picture Dial XML File

See the template of picture dial xml file below:

<picture-dial>

<icon title="" file="Default.png" number="" line="-1"/>

<icon title="" file="Default.png" number="" line="-1"/>

<icon title="" file="Default.png" number="" line="-1"/>

<icon title="" file="Default.png" number="" line="-1"/>

<icon title="" file="Default.png" number="" line="-1"/>

<icon title="" file="Default.png" number="" line="-1"/>

</picture-dial>

Parameters	Permitted Values	Descriptions
Icon title	String	It defines the display name of each item
File	Default.png, Boy.png, Girl.png, Kid 1.png, Kid 2.png, Middle_F.png, Middle_M.png, Senior_F.png, Senior_M.png and xxx.png/xxx.jpg	It defines the picture used of each item
number	String	It defines the phone number of each item
line	-1, 0, 1, 2 or 3	It defines the accounts used of the phone.  -1 stands for auto.  1 stands for line 1.  2 stands for line 2.  3 stands for line 3.  4 stands for line 4.

### III) Upload The picture-dial.xml File

The section defining request for menu icon changes in the CFG files:

```
#####
[ bin:/rundata/data/picture-dial.xml,reboot=1 ]
url =
#####
```

An example:

```
[ bin:/rundata/data/picture-dial.xml,reboot=1 ]
url = ftp://pablo:123@192.168.0.231/VP2009/picture-dial.xml
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:

<ftp://192.168.0.231>, download the picture-dial.xml File from folder VP2009.

### i) Upload and delete HTTPS certificates

I) Upload The Trusted Certificate.

This section is defining request for uploading the Trusted Certificates.

```
#####
[ crt:/boot/www/certs/sdf.crt, reboot=1 ]
url = ftp://pablo:123@192.168.0.231/VP2009/sdf.crt
#####
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:  
<ftp://192.168.0.231>, download the sdf.crt from folder VP2009.

II) Upload The Server Certificate.

This section is defining request for uploading the Trusted Certificates.

```
#####
[ pem:/boot/www/certs/server/12345.pem, reboot=1 ]
url = ftp://pablo:123@192.168.0.231/VP2009/12345.pem
#####
```

This URL will make the phone use account: pablo and password: 123 to access the ftp server:  
<ftp://192.168.0.231>, download the 12345.pem from folder VP2009.

III) Delete The Trusted Certificate.

This section is defining request for deleting the Trusted Certificates.

```
#####
[crt:/boot/www/certs/sdf1.crt, unchanged=system(/boot/www/certs/sdf2.crt), reboot=1 ]
url =
#####
```

In the above, the ***unchanged=system(/boot/www/certs/sdf2.crt)*** is for deleting the certificate named sdf2.crt in the route of ***/boot/www/certs/sdf2.crt***.

At the same time you can upload one certificate sdf1.crt, you can fix the url if want to upload a certificate.

IV) Delete The Server Certificate.

This section is defining request for deleting the Trusted Certificates.

```
#####
[pem:/boot/www/certs/server/12345.pem, unchanged=system(pem:/boot/www/certs/server/123456.pem), reboot=1 ]
url =
#####
```

In the above, the ***unchanged=system(pem:/boot/www/certs/server/123456.pem)*** is for deleting the certificate named 2123456.pem in the route of ***pem:/boot/www/certs/server/123456.pem***.

At the same time you can upload one certificate 12345.pem, you can fix the url if want to upload a certificate.

## 6. Appendix A

### a) How to edit dialnow.xml?

```
<DialNow>
```

```
<Data DialNowRule="12312313" Account="123131"/>
```

```
<Data DialNowRule="12345678" Account="12313"/>
```

```
</DialNow>
```

Data DialNowRule means the dialnow rule you want to configure, the Account means the dialnow rule you want to apply to.

**b) How to edit dialplan.xml?**

```
<DialRule>
```

```
<Data Prefix="1234556" Replace="2222" Account="1"/>
```

```
<Data Prefix="123456789" Replace="1234" Account=""/>
```

```
</DialRule>
```

**c) How to edit the doorphonedata.xml?**

```
<DoorPhone title="Door Phone" icon="menu_doorphoneitem.png">
```

```
  <item title="Door Phone 1"
```

```
    icon="/phone/resource/theme/default/bmp/menu/menu_doorphone.png">
```

```
      <DeviceModel>2N</DeviceModel>
```

```
      <DisplayName>DP 1</DisplayName>
```

```
      <PhoneNumber>123456</PhoneNumber>
```

```

<UnlockPIN>123</UnlockPIN>

<RefuseNewIncall>0</RefuseNewIncall>

</item>

<item title="Door Phone 2"

icon="/phone/resource/theme/default/bmp/menu/menu_doorphone.png">

    <DeviceModel>2N</DeviceModel>

    <DisplayName>DP 2</DisplayName>

    <PhoneNumber></PhoneNumber>

    <UnlockPIN></UnlockPIN>

    <RefuseNewIncall>0</RefuseNewIncall>

</item>

</DoorPhone>

```

The parameters are defined as the below table. The door one is an example of setting Device Model as 2N, Display name as DP 1, Phone number as 123456, UnlockPIN as 123, and do not refuse calls during conversation with door phone.

Parameters	Permitted Values	Descriptions
Device Model	2N,Mobotix,Linkcom,Custom	It defines the Device Model of the door.
Display name	String	It defines display name of the door phone. It should be less than 99 letters.
Phonenumber	Phone number	It defines the phone number of the doorphone. The number is no longer that

		32 digits.
UnlockPIN	String	It defines the UnlockPIN which is set on the door phone. It should be no longer than 32 letters.
RefuseNewIncall	0 or 1	It defines whether to reject new incoming calls while in conversation with door phone.  0 stands for not reject,  1 stands for reject.  The default is 0.

**d) How to edit the dsskey.xml?**

<DssKey>

<Item Type="Speed Dial">

<ItemData Line="-1" Label="Stone" Value="2520" Extension=""/>

</Item>

<Item Type="BLF">

<ItemData Line="0" Label="Stone" Value="2520" Extension=""/>

</Item>

<Item Type="BLF List">

<ItemData Line="0" Label="" Extension="" Value=""/>

```
</Item>

<Item Type="Line">

  <ItemData Line="-1" Label="" Extension="" Value=""/>

</Item>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>

<Item Type="N/A"/>
```

You can configure the DssKey as **Speed Dial**, **BLF**, **BLF List** and **Line**. The about four examples are respectively **Speed Dial**, **BLF**, **BLF List** and **Line**. **ItemData Line** is the line you want to apply this feature to, **-1 stands for auto**, **0~3 stand for line 1 to line 4** respectively, -1 can be configured only when the feature is Speed Dial and Line. The label is what you configure to display on the LCD. The value means the Number you want to apply this feature to.

Please refer to the following picture for what you can configuration in XML file. The white blank is where you can configure, the gray blank can't be configured.

Status		Account		Network		Phone		Contacts		Upgrade		Security	
Preference		Feature		DSS Key		Dial Plan		Door Phone		IP Camera			
Key	Type	Line	Label	Value	Extention	Note							
DSS Key 1	BLF list	Line1				DssKey note							
DSS Key 2	Line	Auto											
DSS Key 3	Speed Dial	Auto											
DSS Key 4	BLF	Line1											
DSS Key 5	None	Auto											

**e) How to edit the ipcameradata.xml?**

```
<IPCamera title="IP Camera" icon="menu_ipcamera_setting.png">
```

```
  <item title="IPCamera01" icon="menu_ipcamera.png">
```

```
    <DeviceModel>0</DeviceModel>
```

```
    <DisplayName>ipcamer01</DisplayName>
```

```
  <PhoneNumber>123456789</PhoneNumber>
```

```
    <Account>-1</Account>
```

```
    <AccessPIN>123456</AccessPIN>
```

```
    <Fullscreen>1</Fullscreen>
```

```
    <Notsendvideo>0</Notsendvideo>
```

```
    <Notsendaudio>1</Notsendaudio>
```

```
  </item>
```

```
  <item title="IPCamera02" icon="menu_ipcamera.png">
```

```
    <DeviceModel>0</DeviceModel>
```

```

<DisplayName></DisplayName>

<PhoneNumber></PhoneNumber>

<Account>-1</Account>

<AccessPIN></AccessPIN>

<Fullscreen>1</Fullscreen>

<Notsendvideo>0</Notsendvideo>

<Notsendaudio>1</Notsendaudio>

</item>

</IPCamera>

```

The parameters are defined as the below table. The IP camera one is an example.

Parameters	Permitted Values	Descriptions
Device Model	Mobotix, Custom	It defines the Device Model of the IP camera.
Display name	String	It defines display name of the IP camera. It should be less than 99 letters.
Phonenumber	Phone number	It defines the phone number of the phone number of the IP camera. The number is no longer than 32 digits.
Account	-1,0,1,2,3	It defines the account which is set to connect with the IP camera.  -1 stands for Auto,

		<p>0 stands for line 1,</p> <p>1 stands for line 2,</p> <p>2 stands for line 3,</p> <p>3 stands for line 4.</p>
AccessPIN	String	<p>It defines the AccessPIN which is set on the IP camera. It should be no longer than 32 letters.</p>
Fullscreen	0 or 1	<p>It defines whether to enable Full screen during connection with the IP camera.</p> <p>0 stands for not full screen,</p> <p>1 stands for full screen.</p>
Notsendvideo	0 or 1	<p>It defines whether to send video to the IP camera.</p> <p>0 stands for sending.</p> <p>1 stands for not sending.</p>
Notsendaudio	0 or 1	<p>It defines whether to send audio to the IP camera.</p> <p>0 stands for sending.</p> <p>1 stands for not sending.</p>

**f) How to edit the picturedail.xml?**

<picture-dial>

<icon title="Grandpa" file="Grandpa.png" number="" line="-1"/>

<icon title="Grandma" file="Grandma.png" number="" line="-1"/>

<icon title="Dad" file="Man.png" number="" line="-1"/>

<icon title="Mum" file="Woman.png" number="" line="-1"/>

<icon title="Son" file="Boy.png" number="" line="-1"/>

<icon title="Daughter" file="Girl.png" number="" line="-1"/>

</picture-dial>

Parameters	Permitted Values	Descriptions
Icon title	string	It defines display name of the picture dial contact on the LCD.
File name	String	It defines file name of the contact picture. You have to upload the picture before this configuration. Please refer to <a href="#">How to upload contact picture.</a>
line	-1,0,1,2,3	It defines the line which is set to call the contact when pressing the picture.  -1 stands for Auto,  0 stands for line 1,  1 stands for line 2,  2 stands for line 3,  3 stands for line 4.

**g) How to edit the remotobook.xml?**

```
<RemotePhoneBook>
```

```
<item url="http://10.1.3.199:9/yealink/menu.xml" name="Yealink_XML"/>
```

```
</RemotePhoneBook>
```

To configure the remote phone book, you need to know the URL of the remote phonebook and you can configure the display name of the remote phonebook yourself. The above example is a remote phone located //10.1.3.199:9/yealink/menu.xml and its display name is Yealink\_XML.

**h) How to edit the softkey.xml?**

Take the Voice talk interface for example.

```
<voicetalk>
```

```
<hotkey>
```

```
<disable>
```

```
<key type="Empty"/>
```

```
</disable>
```

```
<enable>
```

```
<key type="Transfer"/>
```

```
<key type="Hold"/>
```

```
<key type="Conference"/>
```

```
<key type="End Call"/>
```

```
</enable>
```

```
<default>

  <key type="Transfer"/>

  <key type="Hold"/>

  <key type="Conference"/>

  <key type="End Call"/>

</default>

</hotkey>

<pagekey>

  <disable>

    <key type="Empty"/>

  </disable>

  <enable>

    <key type="SWAP"/>

    <key type="New Call"/>

    <key type="Mute"/>

    <key type="Call Manager"/>

    <key type="Statistics"/>

  </enable>

  <default>

    <key type="SWAP"/>

    <key type="New Call"/>

    <key type="Mute"/>
```

```

<key type="Call Manager"/>

<key type="Statistics"/>

</default>

</pagekey>

</voicetalk>

```

Voicetalk in the first and last line of the text is to define the interface which these softkeys are on.

There are two types of the softkeys, one is hotkey, the other is pagekey. The hotkeys are laying on the down side of the LCD, and the pagekey are laying on the right side of the LCD. The softkeys between the *disable* are the present disabled softkeys, the softkeys between the *enable* are the present enabled softkeys, and the softkeys between the *default* are the default softkeys.

1. To adjust the position of the softkey, for example, you can exchange the position of Transfer and Hold.
2. You can add the softkeys from disabled key type to replace the enabled key type, for example you can replace Transfer with Empty from disabled key type.

Name In the XML	The explanation of the interface.
dialing	This is the dialing interface.
trandial	This is the dialing interface when you are transferring a call.
ringforward	This is the dialing interface when you are forwarding a call.
ringback	This is the ring back interface while making a call.

tranringback	This is the ring back interface while you are transferring a call.
betranringback	This is the ring back interface when you are doing an attended transfer.
normalring	This is the normal ring interface when there is an incoming call.
callfinish	This is the interface when the call is finished.
voicetalk	This is the interface when you are having a voice call.
videotalk	This is the interface when you are having a video call.
tranvoicetalk	This is the interface when you are talking to the third part when you are doing an attended voice call transfer.
tranvideotalk	This is the interface when you are talking to the third part when you are doing an attended video call transfer.
betranvoicetalk	This is the interface when you are doing voice call blind transfer, the interface when you press resume.
betranvideotalk	This is the interface when you are doing video call blind transfer, the interface when you press resume.
pstntalk	This is the interface when you are having a PSTN call.
voiceconf	This is the interface when you are having a voice conference.
videoconf	This is the interface when you are having a video conference.
voicedoorphone	This is the interface when you are having a voice call with door phone.
videodoorphone	This is the interface when you are having a video call with door phone.

videoipcamera	This is the interface when you are having a call with the IP camera.
---------------	--

**i) How to edit the XML of the UI folder?**

Here we will take the application.xml as an example since the way to edit the XML of the UI is almost the same.

```
<RootMenu title="Application"
```

```
icon="/phone/resource/theme/default/bmp/menu/menu_application.png" >
```

```
<item title="IP Camera" icon="/phone/resource/theme/default/bmp/menu/menu_ipcamera.png"
```

```
action="OpenXml(ipcameradata.xml)" />
```

```
<item title="Door Phone"
```

```
icon="/phone/resource/theme/default/bmp/menu/menu_doorphone.png"
```

```
action="OpenXml(doorphonedata.xml)" />
```

```
</RootMenu>
```

You can by uploading the menu icons yourself, please refer to [Change menu icon](#). You can also adjust the location of the icon, please refer to [Customize User Interface](#). Please note that we will you can amend the parameter following the below table.

Parameters	Permitted Values	Descriptions
item title	string	It defines display name of the icon on the LCD.
icon	String	It defines the full path of the icon.

action	OpenXml(XXX.xml) or OpenPage(XXX)	It defines the action when the icon is pressed. Please note the format has to be OpenXml(XXX.xml ) or OpenPage(XXX).
--------	--------------------------------------	--

## 7. Appendix B

### a) Description of configuration parameters in CFG file

Section Header and Path	Parameters	Permitted Values	Descriptions
<p>[ cfg:/rundata/config/user/voip/sipAccount0.cfg, reboot=0 ]</p> <p>Note:</p> <p>1. VP2009 support 4 accounts, for each account, there are completely same parameters and they share same permitted values and default values. The difference is just on the path. The</p>	account.Enable	0 or 1	<p>It defines the Line Active value of account1.</p> <p>0 stands for off</p> <p>1 stands for on</p> <p>The default is: 0</p>
	account.DisplayName	String	<p>It defines the <b>Display Name</b> of account1.</p> <p>The default is blank.</p>
	account.Label	String	<p>It defines the <b>Label name</b> of account1.</p> <p>The default is blank.</p>

<p>path for account1 is</p> <p>/rundata/config/user/voip/sipAccount0.cfg</p>	account.UserName	String	<p>It defines the <b>User Name</b> of account1.</p> <p>The default is blank.</p>
<p>Account2 is</p> <p>/rundata/config/user/voip/sipAccount1.cfg</p>	account.AuthName	String	<p>It defines the <b>Register Name</b> of account1.</p> <p>The default is blank.</p>
<p>Account3 is</p> <p>/rundata/config/user/voip/sipAccount2.cfg</p>	account.password	String	<p>It defines the <b>Password</b> of registration for account1.</p> <p>The default is blank.</p>
<p>Account4 is</p> <p>/rundata/config/user/voip/sipAccount3.cfg</p>	account.SIPServerHost	Domain name or IP Address	<p>It defines the <b>SIP Server</b> of account1.</p> <p>The default is blank.</p>
<p>2. "reboot=0" means phone won't reboot after update</p>	account.SIPServerPort	Integer	<p>It defines the <b>Port</b> of the SIP Server of account1.</p> <p>The default is 5060.</p>
	account.SIPListenPort	Integer	<p>It defines the <b>Local SIP Port</b> of account1.</p> <p>The default is 5062.</p>
	account.Expire	Integer	<p>It defines the value of <b>Login Expire</b> of account1.</p> <p>The default is 3600.</p>
	account.UseOutboundProxy	0 or 1	<p>It defines the value of <b>Enable</b></p>

	y		<p><b>Outbound Proxy Server</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	account.OutboundHost	Domain name or IP Address	<p>It defines the <b>Outbound Proxy Server</b> of account1.</p> <p>The default is blank.</p>
	account.OutboundPort	Integer	<p>It defines the <b>Port</b> of the Outbound Proxy Server of account1.</p> <p>The default is 5060.</p>
	account.BakOutboundHost	Domain name or IP Address	<p>It defines the <b>Backup Outbound Proxy Server</b> of account1.</p> <p>The default is blank.</p>
	account.BakOutboundPort	Integer	<p>It defines the <b>Port</b> of Backup Outbound Proxy Server of account1.</p> <p>The default is 5060.</p>
	account.EnableUserEqual Phone	0 or 1	<p>It defines the value of <b>Use user=phone</b> of account1.</p>

			<p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	account.Enable 100rel	0 or 1	<p>It defines the value of <b>100 reliable retransmission</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	account.SubscribeRegister	0 or 1	<p>It defines the value of <b>Subscribe Register</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	account.EnableSessionTimer	0 or 1	<p>It defines the value of <b>Use Session Timer</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	account.SessionExpires	Integer from 1 to 999	<p>It defines the value of <b>Session Timer</b> of account1.</p>

			The default is 100.
	account.SessionRefresher	0 or 1	It defines the value of <b>Refresher</b> of account1.  0 stands for Uac.  1 stands for Uas.  The default is 0.
	account.SubscribeMWI	0 or 1	It defines the value of <b>Subscribe for MWI</b> of account1.  0 stands for Disable.  1 stands for Enable.  The default is 0.
	account.SubscribeMWIExpire	Integer from 0 to 7200	It defines the value of <b>MWI Subscription Period</b> of account1.  The default is 3600.
	account.Transport	0 or 1	It defines the value of <b>Transport</b> of account1.  0 stands for UDP.  1 stands for TCP.  The default is 0.
	account.CIDSource	0 or 1	It defines the value of Caller ID

			Header of account1.  0 stands for FROM.  1 stands for PAI.  The default is 0.
	account.VoiceMail	String	It defines <b>Voice Mail</b> number of account1.  The default is blank.
	account.RegisterMAC	0 or 1	It defines the value of <b>SIP Send MAC</b> of account1.  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	DTMF.DTMFInbandTransfer	0,1 or 2	It defines the value of <b>DTMF Type</b> of account1.  0 stands for INBAND.  1 stands for RFC2833.  2 stands for SIP INFO.  The default is 1.
	DTMF.DTMFPayload	Integer from 96 to 255	It defines the value of <b>DTMF Payload</b> of account1.  The default is 101.
	NAT.MaxRTPPort	Integer from	It defines the Max value of

		0 to 65535	<p><b>RTP Port</b> of account1.</p> <p>The default is 11800</p>
	NAT.MinRTPPort	Integer from 0 to 65535	<p>It defines the Min value of <b>RTP Port</b> of account1.</p> <p>The default is 11780</p>
	NAT.NATTraversal	0 or 1	<p>It defines the value of <b>NAT Traversal</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for STUN.</p> <p>The default is 0.</p>
	NAT.STUNServer	Domain name or IP Address	<p>It defines the value of <b>STUN Server</b> of account1.</p> <p>The default is blank.</p>
	NAT.STUNPort	Integer	<p>It defines the <b>Port</b> of STUN Server of account1.</p> <p>The default is 3478.</p>
	NAT.EnableUDPUUpdate	0 or 1	<p>It defines the value of <b>UDP Keep-alive Message</b> of account1.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>

	NAT.UDPUpdateTime	Integer	It defines the value of <b>UDP Keep-alive Interval</b> of account1.  The default is 30(seconds).
	NAT.rport	0 or 1	It defines the value of <b>Rport</b> of account1.  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	ADVANCED.default_t1	Float	It defines the value of <b>SIP Session Timer T1</b> of account1.  The default is 0.5.
	ADVANCED.default_t2	Float	It defines the value of <b>SIP Session Timer T2</b> of account1.  The default is 4.
	ADVANCED.default_t4	Float	It defines the value of <b>SIP Session Timer T4</b> of account1.  The default is 5.
	ADVANCED.VideoBandwidth	0,128,192,256,320,384,512,768 or 1024	It defines the value of <b>Bandwidth</b> for Video.  0 stands for auto.  128 stands for 128kbps.

			<p>192 stands for 192kbps.</p> <p>256 stands for 256kbps.</p> <p>320 stands for 320kbps.</p> <p>384 stands for 384kbps.</p> <p>512 stands for 512kbps.</p> <p>768 stands for 768kbps.</p> <p>1024 stands for 1024kbps.</p> <p>The default is 0.</p>
	AutoAnswer.bEnable	0 or 1	<p>It defines the activity of <b>Auto Answer</b>.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	AutoAnswer.nTimeout	0, 5, 15 or 30	<p>It defines the time to <b>Auto Answer</b>.</p> <p>0 stands for 0s.</p> <p>5 stands for 5s.</p> <p>15 stands for 15s.</p> <p>30 stands for 30s.</p> <p>The default is 0.</p>
	CallOption.eCallMode	0 or 1	<p>It defines the <b>Mode</b> of the call.</p> <p>0 stands for voice.</p>

			1 stands for video.  The default is 1.
	CallOption.bActiveCamera	0 or 1	It defines the activity of <b>Camera</b> .  0 stands for Disabled.  1 stands for Enabled.  The default is 1.
	vaServer.nFrameRate	10fps,  15fps,  20fps,  25fps, or  30fps	It defines the value of <b>Frame Rate</b> .  The default is 10.
	account.AnonymousCall	0 or 1	It defines whether to enable the <b>Anonymous Call</b> feature.  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	account.AnonymousCall_OnCode	String	It defines the <b>On Code</b> for <b>Anonymous Call</b> .  The default is blank.
	account.AnonymousCall_OffCode	String	It defines the <b>Off Code</b> for <b>Anonymous Call</b> .

			The default is blank.
	account.RejectAnonymous Call	0 or 1	It defines whether to enable the <b>Reject Anonymous Call</b> feature.  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	account.AnonymousReject _OnCode	String	It defines the <b>On Code</b> for <b>Reject Anonymous Call</b> .  The default is blank.
	account.AnonymousCall_ OffCode	String	It defines the <b>Off Code</b> for <b>Reject Anonymous Call</b> .  The default is blank.
	account.Transport	0 ,1 or 2	It defines the <b>Transport</b> mode of the call.  0 stands for UDP.  1 stands for TCP.  2 stands for TLS  The default is 0.
	account.srtp_encryption	0 or 1	It defines whether to enable the <b>SRTP</b> feature.  0 stands for Disabled.

			<p>1 stands for Enabled.</p> <p>The default is 0.</p>
	Ring.strRingFile	<p>NULL or</p> <p>/rundata/var</p> <p>data/sound/</p> <p><b>RingName.w</b></p> <p>av</p>	<p>It defines the <b>RingTone</b> used of this account.</p> <p>The default is NULL.</p>
	enable	0 or 1	<p>It defines the activity of a specific codec.</p> <p>0 means to disable the codec.</p> <p>1 means to enable the codec.</p>
	PayloadType	<p>Audio codec</p> <p>can choose</p> <p>one of the</p> <p>following:</p> <p>PCMU</p> <p>PCMA</p> <p>G729</p> <p>G722</p> <p>G723</p> <p>GSM</p> <p>AACL</p>	<p>It stands for a specific Codec type.</p>

		<p>iLBC</p> <p>Video codec</p> <p>can choose</p> <p>one of the</p> <p>following:</p> <p>H264</p> <p>H263</p> <p>mp4v-es</p>	
	priority	<p>Audio</p> <p>Codec:</p> <p>Integer from</p> <p>1 to 8</p> <p>Video</p> <p>Codec:</p> <p>Integer from</p> <p>1 to 3</p>	<p>It stands for the priority of a specific enabled codec.</p>
	rtpmap	Integer	<p>It defines the payload of the codec.</p>
	para	String	<p>It defines the payload of the media format.</p>
	account.BlfListCode	String	<p>It defines the pickup access code of BLF list, the access</p>

			code is defined by the server.
	blf.BLFList_URI	String	It defines URI of the monitored BLF list, the URI is defined by the server.
	account.SubscribeMWI	0 or 1	It defines whether to send the subscription for Message Waiting Indication (MWI).  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	account.SubscribeMWIExpiration	0~7200	It defines the expiration time for one subscription. After the expiration, the phone will send the subscription again.  The time can be defined as 1~7200 seconds.  The default is 3600s.

For each account there are totally 8 usable Audio Codecs and 3 usable Video Codecs. Each one has a section in configuration files and so there are sections from audio0 to audio8 and video0 to video2 for each account.

They have default values as below. If you want to change one of them, please note that there should be no same parameter values for the same account:

audio0.enable = 1

audio0.priority = 2

audio0.PayloadType = PCMA

audio0.rtpmap = 8

audio1.enable = 1

audio1.priority = 1

audio1.PayloadType = PCMU

audio1.rtpmap = 0

audio2.enable = 1

audio2.priority = 3

audio2.PayloadType = G729

audio2.rtpmap = 18

audio3.enable = 0

	<p>audio3.priority = 4</p> <p>audio3.PayloadType = G722</p> <p>audio3.rtpmap = 9</p> <p>audio4.enable = 0</p> <p>audio4.priority = 5</p> <p>audio4.PayloadType = G723</p> <p>audio4.rtpmap = 4</p> <p>audio5.enable = 0</p> <p>audio5.priority = 6</p> <p>audio5.PayloadType = GSM</p> <p>audio5.rtpmap = 3</p> <p>audio6.enable = 0</p> <p>audio6.priority = 7</p> <p>audio6.PayloadType = AACLC</p> <p>audio6.rtpmap = 102</p> <p>audio7.enable = 0</p> <p>audio7.priority = 8</p> <p>audio7.PayloadType = iLBC</p>
--	---

	<p>audio7.rtpmap = 122</p> <p>video0.enable = 1</p> <p>video0.priority = 1</p> <p>video0.PayloadType = H264</p> <p>video0.rtpmap = 99</p> <p>video0.para = profile-level-id=42800D; packetization-mode=0;</p> <p>max-mbps=11880</p> <p>video1.enable = 1</p> <p>video1.priority = 2</p> <p>video1.PayloadType = H263</p> <p>video1.rtpmap = 34</p> <p>video1.para = CIF=1; QCIF=1</p> <p>video2.enable = 1</p> <p>video2.priority = 3</p> <p>video2.PayloadType = mp4v-es</p> <p>video2.rtpmap = 102</p> <p>video2.para = CIF=1 QCIF=1 MaxBR=3840</p>		
[ rom:Firmware]	url	HTTP/HTTPS	It defines the <b>URL</b> which is

		/FTP/TFTP Address	supposed to be the auto provisioning server.
[psw:/rundata/data/htpasswd]	admin	String	It defines the new password for <b>admin</b> .
	Var	String	It defines the new password for <b>var</b> .
	user	String	It defines the new password for <b>user</b> .
[ cfg:/rundata/config/system.ini,reboot= 1]	Network.eWANType	0,1 or 2	It defines the type of <b>Internet Port (WAN)</b> .  0 stands for DHCP.  1 stands for PPPoE.  2 stands for Static IP Address.  The default is 0.
	Network.strWanIP	IP Address	It defines the <b>IP Address</b> when using static WAN settings.  The default is blank.
	Network.strWanMask	Network Mask	It defines the <b>Subnet Mask</b> when using static WAN settings.

			The default is blank.
	Network.strWanGateway	IP Address	It defines the <b>Default Gateway</b> when using static WAN settings.  The default is blank.
	Network.strWanPrimaryDNS	IP Address	It defines the <b>Primary DNS</b> when using static WAN settings.  The default is blank.
	Network.strWanSecondaryDNS	IP Address	It defines the <b>Secondary DNS</b> when using static WAN settings.  The default is blank.
	Network.strPPPoEUser	string	It defines the <b>User</b> name when using PPPoE WAN settings.  The default is blank.
	Network.strPPPoEPin	string	It defines the <b>Password</b> when using PPPoE WAN settings.  The default is blank.
	VLAN.bEnable	0 or 1	It defines whether to enable <b>VLAN</b> .

			<p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	VLAN.nID	Integer from 0 to 4094	<p>It defines the value of <b>VID</b>.</p> <p>The default is 0.</p>
	VLAN.nPriority	Integer from 0 to 7	<p>It defines the value of <b>USRRIORITY</b>.</p> <p>The default is 0.</p>
	LocalTime.strTimeName	Time from -11 to +12	<p>It defines the <b>Time Zone</b> you expect to use on the phone.</p> <p>The default is +8.</p>
	LocalTime.strZoneName	string	<p>It defines the <b>Time Zone Name</b> you expect to use on the phone.</p> <p>The default is China(Beijing)</p>
	LocalTime.lbDSTEnable	0 or 1	<p>It defines whether to enable Daylight saving time.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	LocalTime.bNTPEnable	0 or 1	<p>It defines whether to use NTP server time.</p>

			<p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	LocalTime.strPrimaryNTPServer	Domain name or IP Address	<p>It defines the <b>Secondary NTP Server</b>.</p> <p>The default is time.windows.com</p>
	LocalTime.strSecondaryNTPServer	Domain name or IP Address	<p>It defines the <b>Secondary NTP Server</b>.</p> <p>The default is cn.pool.ntp.org.</p>
	LocalTime.nNTPPort	Integer	<p>It defines the <b>Port of NTP Server</b>.</p> <p>The default is 123</p>
	LocalTime.nNTPLeaseSeconds	Integer	<p>It defines the <b>Lease of NTP Server</b>.</p> <p>The default is 3600</p>
	AutoProvision.bEnablePowerOn	0 or 1	<p>It defines whether to check new config Power On</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>

	<p>AutoProvision.bEnableWeekly</p>	<p>0 or 1</p>	<p>It defines whether to check new config Weekly</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	<p>AutoProvision.strWeeklyMask</p>	<p>0,1,2,3,4,5,6 or a combination of these numbers</p>	<p>It is available when mode is 5 or 7. It defines the day of week when there's a need to check new config. If it is set to be 0123456, it means every day.</p> <p>0:Sunday 1:Monday 2:Tuesday 3:Wednesday 4:Thursday 5:Friday 6:Saturday</p>
	<p>AutoProvision.strWeeklyBeginTime</p>	<p>Time as 02:00</p>	<p>It means the phone will check new config at a time</p>
	<p>AutoProvision.strWeeklyEndTime</p>	<p>Time as 03:00</p>	<p>between schedule_time and schedule_time_end on a</p>

			specified day every week.
	AutoProvision.bEnableRepeat	0 or 1	It defines whether to check new config Repeatly 0 stands for Disabled. 1 stands for Enabled. The default is 0.
	AutoProvision.nRepeatMinutes	1 to 43200	It is available when AutoProvision.bEnableRepeat is 1. It stands for the interval time (by minutes) of checking new config.
	AutoProvision.bEnablePNP	0 or 1	It defines the value of <b>PNP config</b> . 0 stands for Disabled. 1 stands for Enabled. The default is 0.
	AutoProvision.strPNPMulticastIP	IP Address	It defines the value of <b>PNP Multicast IP</b> . The default is 224.0.1.75
	AutoProvision.bEnableDHCPOption	0 or 1	It defines the value of <b>DHCP Option</b> 0 stands for Disabled.

			1 stands for Enabled.  The default is 0.
	AutoProvision.listUserOptions	Integer from 129 to 254	It defines the <b>Custom Option</b> .  The default is blank.
	AutoProvision.strServerURL	HTTP/HTTPS/FTP/TFTP Address	It defines the <b>URL</b> which is supposed to be the auto provisioning server.
	AutoProvision.strKeyAES16	16-byte String	It defines the <b>Common AES Key</b> which is used for decrypting the common CFG file. Besides 0 ~ 9, A ~ Z, a ~ z, the valid characters include the following special ones: # \$ % * + , - . : = ? @ [ ] ^ _ { } ~
	AutoProvision.strKeyAES16MAC	16-byte string	It defines the MAC-Oriented AES Key which is used for decrypting the MAC-OrientedCFG file. The valid characters are the same as <b>aes_key_16</b> .
	QoS.nSIPQoS	0,2,4,8 or 16	It defines the SIP QoS.  0 stands for Normal-Service.

			<p>2 stands for Minimize-Cost.</p> <p>4 stands for Maximize-Reliability.</p> <p>8 stands for Maximize-Throughput.</p> <p>16 stands for Minimize-Delay.</p> <p>The default is 0.</p>
	QoS.nRTPQoS	0,2,4,8 or 16	<p>It defines the RTP QoS.</p> <p>0 stands for Normal-Service.</p> <p>2 stands for Minimize-Cost.</p> <p>4 stands for Maximize-Reliability.</p> <p>8 stands for Maximize-Throughput.</p> <p>16 stands for Minimize-Delay.</p> <p>The default is 0.</p>
	HttpServer .bEnable	0 or 1	<p>It defines whether to enable <b>HTTP Server</b>.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p>

			The default is 1.
	HttpServer.nPort	Integer from 0 to 65535	It defines the Port of <b>HTTP server</b> . The default is 80.
	HttpsServer.bEnable	0 or 1	It defines whether to enable <b>HTTPS Server</b> . 0 stands for Disabled. 1 stands for Enabled. The default is 0.
	HttpsServer.nPort	Integer from 0 to 65535	It defines the Port of <b>HTTPs server</b> . The default is 443.
	vaServer.nSlowIDRSpan	Integer	It defines the value of <b>I-frame refresh (s)</b> . The default is 30.
	TVOut.bNTSC	0 or 1	It defines the type of <b>TV OUT</b> . 0 stands for PLA 1 stands for NTSC The default is 1.
	Features.lbEnableTelMode	0 or 1	It defines whether the <b>Tel Mode</b> is enabled.

			<p>0 stands for Disable.</p> <p>1 stands for Enable.</p> <p>The default is 0.</p>
	Features.bEnableDirectIP	0 or 1	<p>It defines whether the <b>Direct IP Call</b> is enabled.</p> <p>0 stands for Disable.</p> <p>1 stands for Enable.</p> <p>The default is 1.</p>
	Features.bBroadsoftFeatureKeySync	0 or 1	<p>It defines whether to allow the synchronization of DNS and Forward status on the phone and the server.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	ZeroSpTouch.bEnable	0 or 1	<p>It defines whether enable Zero Sp Touch.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	ZeroSpTouch.nTime	1~100	<p>It defines the time countdown to allow to</p>

			confirm the Zero Sp Touch. It can be defined from 1~100seconds, the default is 5seconds.
	Intercom.bEnable	0 or 1	It defines whether to allow intercom. 0 stands for Disabled. 1 stands for Enabled. The default is 1.
	Features.bTranOnConfHangup	0 or 1	It defines whether to allow the other two conference parts to continue conversation when the host hangs up. 0 stands for Disabled. 1 stands for Enabled. The default is 0.
	Features.bPopupPreDialAtScreenSaver	0 or 1	It defines whether to enable response for number input while screen saver is on. 0 stands quitting screen saver only.

			<p>1 stands for quitting screen saver and respond to the number input.</p> <p>The default it 1.</p>
	EnableFunction.bEnableWeather	0 or 1	<p>It defines whether to enable the application of weather.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	EnableFunction.bEnableStock	0 or 1	<p>It defines whether to enable the application of stock.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	EnableFunction.bEnableBrowser	0 or 1	<p>It defines whether to enable the application of browser.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	uSign.bEnable	0 or 1	<p>It defines whether to enable the application of usign.</p> <p>0 stands for Disabled.</p>

			<p>1 stands for Enabled.</p> <p>The default is 0.</p>
	uSign.bVoiceTalkEnable	0 or 1	<p>It defines whether to enable the application of usign while the phone is on call.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	uSign.bVoiceTalkHold	0 or 1	<p>It defines whether to enable the application of using while the phone call is on hold.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	uSign.bScreenSaver	0 or 1	<p>It defines whether to enable the application of usign while screen saver time.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	BusyTone.nBusyToneDelay	0,3,5	<p>It defines the duration of the tone when you hang up the</p>

			<p>call.</p> <p>0 stands for 0s,</p> <p>3 stands for 3s,</p> <p>5 stands for 5s.</p> <p>The default is 0.</p>
[ cfg:/rundata/config/user/user.ini, reboot=0]	Language.strGUILanguage	Language Name	<p>It defines the <b>Language</b> used on the LCD display.</p> <p>The default is "English".</p>
	Language.strWebLanguage	Language Name	<p>It defines the <b>Language</b> used on the Webpage.</p> <p>The default is "English".</p>
	ScreenSaver.eType	0 or 1	<p>It defines the Type of <b>Screen Saver</b>.</p> <p>0 stands for Photo.</p> <p>1 stands for Movie.</p> <p>The default is 1.</p>
	ScreenSaver.nTimeout	Integer from 0 to 18000	<p>It defines the time to <b>Screen Saver</b>.</p> <p>The default is 60(s).</p>
	Sleep.nTimeout	Integer from 0 to 18000	<p>It defines the time to <b>Sleep</b>.</p> <p>The default is 600(s).</p>
AlwaysForward.bEnable	0 or 1	It defines whether the <b>Always</b>	

			<p><b>Forward</b> is enabled.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	AlwaysForward.strTarget	Phone number	<p>It defines the <b>Target</b> number that the phone will <b>Always Forward to</b>.</p> <p>The default is blank.</p>
	AlwaysForward.nOnCode	String	<p>It defines the <b>On Code</b> for <b>Always Forward</b>.</p> <p>The default is blank.</p>
	AlwaysForward.nOffCode	String	<p>It defines the <b>Off Code</b> for <b>Always Forward</b>.</p> <p>The default is blank.</p>
	BusyForward.bEnable	0 or 1	<p>It defines whether the <b>Busy Forward</b> is enabled.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	BusyForward.strTarget	Phone number	<p>It defines the <b>Target</b> number that the phone will <b>Busy Forward to</b>.</p>

			The default is blank.
	BusyForward.nOnCode	String	It defines the <b>On Code</b> for <b>Busy Forward</b> .  The default is blank.
	BusyForward.nOffCode	String	It defines the <b>Off Code</b> for <b>Busy Forward</b> .  The default is blank.
	NoAnswerForward.bEnable	0 or 1	It defines whether the <b>No Answer Forward</b> is enabled.  0 stands for Disabled.  1 stands for Enabled.  The default is 0.
	NoAnswerForward.strTarget	Phone number	It defines the <b>Target</b> number that the phone will <b>No Answer Forward</b> to.  The default is blank.
	NoAnswerForward.nTimeout	Integer from 0 to 100	It defines the time after which the call will be forwarded when using <b>No Answer Forward</b> .  The default is 60(seconds).
	NoAnswerForward.nOnCode	String	It defines the <b>On Code</b> for <b>No</b>

	de		<p><b>Answer Forward.</b></p> <p>The default is blank.</p>
	NoAnswerForward.nOffCode	String	<p>It defines the <b>Off Code</b> for <b>No Answer Forward.</b></p> <p>The default is blank.</p>
	CallWaiting.bEnable	0 or 1	<p>It defines the activity of <b>Call Waiting.</b></p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	CallWaiting.bEffectPstn	0 or 1	<p>It defines the activity of <b>Call waiting Effect on PSTN.</b></p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	AutoAnswer.bEnable	0 or 1	<p>It defines the activity of <b>Auto Answer.</b></p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 1.</p>
	AutoAnswer.nTimeout	0, 5, 15 or 30	<p>It defines the time to <b>Auto Answer.</b></p>

			<p>0 stands for 0s.</p> <p>5 stands for 5s.</p> <p>15 stands for 15s.</p> <p>30 stands for 30s.</p> <p>The default is 0.</p>
	KeyAsSend.eType	0, 1 or 2	<p>It defines the <b>Key as send</b>.</p> <p>0 stands for Disable.</p> <p>1 stands for #.</p> <p>2 stands for *.</p> <p>The default is 1.</p>
	DateTime.eDateFormat	1,2 or 3	<p>It defines the format of <b>Date</b>.</p> <p>1 stands for DDMMYYYY.</p> <p>2 stands for MMDDYYYY.</p> <p>3 stands for YYYYMMDD.</p> <p>The default is 3.</p>
	DateTime.eTimeFormat	1 or 2	<p>It defines the format of <b>Time</b>.</p> <p>1 stands for 24hours.</p> <p>2 stands for 12hours.</p> <p>The default is 1.</p>
	DND.bEffectPstn	0 or 1	<p>It defines the activity of <b>DND</b></p> <p><b>Effect on PSTN.</b></p> <p>0 stands for Disabled.</p>

			1 stands for Enabled.  The default is 0.
	DefaultIme.strAdminPwd	123, 2aB, ABC  or abc	It defines the input method  when <b>Setting Interface</b> .
	DefaultIme.strSecurity	123, 2aB, ABC  or abc	It defines the input method  when <b>Security Interface</b> .
	Hotline.strNumber	Phone number	It defines the <b>hotline number</b>  that the phone will automatic dial out when off hook.  The default is blank.
	Hotline.nTimeDelay	Integer from 0  to 10	It defines the hotline delay time.  The default is 0(seconds).
	TVOut.bTvOutput	0 or 1	It defines the activity of <b>TV</b>  <b>Out</b> option.  0 stands for Off.  1 stands for On.  The default is 0.
	TVOut.bNTSC	0 or 1	It defines the format of <b>TV</b>  <b>Output</b> .  0 stands for PAL.  1 stands for NTSC.

			The default is 0.
	Desktop.nMainOption	-1,0,1,2,3	<p>It defines which desktop return to when the call is hanged up.</p> <p>-1 stands for Auto</p> <p>0 stands for Wallpaper desktop</p> <p>1 stands for Menu desktop</p> <p>2 stands for Picture-dial desktop</p> <p>3 stands for DSS-key desktop</p> <p>The default is -1.</p>
LDAP configuration			
	LDAP.bEnable	0 or 1	<p>It defines whether to enable the LADP phonebook.</p> <p>0 stands for Disabled.</p> <p>1 stands for Enabled.</p> <p>The default is 0.</p>
	LDAP.strLdapName	String	<p>It defines the name of the LADP phonebook, this name will show in the Directory of</p>

			the video phone LCD interface.
	LDAP.strNameFilter	String	It defines LDAP search criteria for names. The format of the search filter is compliant to the standard string representations of LDAP search filters (RFC 2254).  The default is blank.
	LDAP.strNumberFilter	String	It defines LDAP search criteria for numbers. The format of the search filter is compliant to the standard string representations of LDAP search filters (RFC 2254).  The default is blank.
	LDAP.strServerName	String	It defines DNS name or IP address of the LDAP server.  The default is blank.
	LDAP.nServerPort	String	It defines the LDAP server

			port.  The default is 389.
	LDAP.strBase	String	It defines the LDAP search base (the distinguished name of the search base object) which corresponds to the location in the directory from which the LDAP search is requested to begin.  The default is blank.
	LDAP.strUserName	String	It defines the bind "Username" for LDAP servers.  The default is blank.
	LDAP.strUserPin	String	It defines the bind "Password" for LDAP servers.  The default is blank.
	LDAP.nMaxHits	String	It defines the maximum number of search results to be returned by the LDAP server.

			The default is 50.
	LDAP.strNameAttr	String	It defines the “name” attributes of each record which are to be returned in the LDAP search results.  The default is blank.
	LDAP.strNumbAttr	String	It defines the “number” attributes of each record which are to be returned in the LDAP search results by the LDAP server.  The default is blank.
	LDAP.strDisplayName	String	It defines displaying name of the entry information in the search results.  The default is blank.
	LDAP.nProtocolVersion	2 or 3	It defines the protocol version of the LDAP.  2 stands for version 2,  3 stands for version 3.  The default is 3.
	LDAP.bLookup4CallIn	0 or 1	It defines whether to enable

			<p>an LDAP number search for the incoming number and displays the name of the calling party accordingly.</p> <p>0 stands disabled.</p> <p>1 stands enabled.</p> <p>The default is 1.</p>
	LDAP.bLookup4Dial	0 or 1	<p>It defines whether to enable an LDAP number search for PreDial or Dial status.</p> <p>0 stands for disabled.</p> <p>1 stands for enabled.</p> <p>The default is 0.</p>
	LDAP.bSortResult	0 or 1	<p>It defines whether to sort the search results by alphanumerical order.</p> <p>0 stands for disabled.</p> <p>1 stands for enabled.</p> <p>The default is 1.</p>
	LDAP.nSearchDelay	0~2000	<p>It defines the delay display time after search. The delay can be configured from</p>

			0~2000ms.  The default is 0.
	LDAP configuration		
[ bin:/rundata/data/dialplan.xml,reboot=0 ]	URL	<p>It defines the Dial plan URL which must be a url linking to an XML-format dialplan like</p> <p><a href="ftp://pablo:123@192.168.0.231/VP2009/dialplan.xml">ftp://pablo:123@192.168.0.231/VP2009/dialplan.xml</a></p> <p>The default is blank.</p> <p>Note that the name has to be dialplan.xml.</p>	
[ bin:/rundata/config/data/dsskey.xml,reboot=1 ]	URL	<p>It defines the Dsskey url which must be a url linking to an XML-format dsskey like</p> <p><a href="ftp://pablo:123@192.168.0.231/VP2009/dsskey.xml">ftp://pablo:123@192.168.0.231/VP2009/dsskey.xml</a></p> <p>The default is blank.</p> <p>Note that the name has to be dsskey.xml.</p>	
#Remote Phone Book0 [ bin:/rundata/data/remotobook.xml,reboot=0]	URL	FTP URL	<p>It defines the Phone book url which must be a url linking to an XML-format phonebook like</p> <p><a href="ftp://pablo:123@192.168.0.231/VP2009/remotobook1.xml">ftp://pablo:123@192.168.0.231/VP2009/remotobook1.xml</a></p> <p>The default is blank.</p>

	Name	String	<p>It defines the Phone book name of the first Remote phonebook.</p> <p>For more details, please refer to the instruction to Remote phonebook.</p>
<p>#Remote Phone Book1 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>	<p>They share the same parameters and Permitted Values as #Remote Phone Book0.</p>		
<p>#Remote Phone Book2 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>			
<p>#Remote Phone Book3 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>			
<p>#Remote Phone Book4 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>			
<p>#Remote Phone Book5 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>			
<p>#Remote Phone Book6 [ bin:/rundata/data/remotobook.xml,reb oot=0]</p>			

<p>bin:/rundata/data/remotobook.xml, reboot=0]</p>		
<p>[ bin:/rundata/data/ipcameradata.xml, reboot=1 ]</p>	<p>url</p>	<p>It defines the IP camera URL which must be a url linking to an XML-format ipcameradata.xml like <a href="ftp://pablo:123@192.168.0.231/VP2009/ipcameradata.xml">ftp://pablo:123@192.168.0.231/VP2009/ipcameradata.xml</a></p> <p>The default is blank.</p> <p>Note that the name has to be ipcameradata.xml.</p>
<p>[ bin:/rundata/data/doorphonedata.xml, reboot=1 ]</p>	<p>url</p>	<p>It defines the Door phone URL which must be a url linking to an XML-format doorphonedatat.xml. <a href="ftp://pablo:123@192.168.0.231/VP2009/doorphonedatat.xml">ftp://pablo:123@192.168.0.231/VP2009/doorphonedatat.xml</a></p> <p>The default is blank.</p> <p>Note that the name has to be doorphonedatat.xml.</p>
<p>[ bin:/rundata/data/softkey.xml, reboot=1 ]</p>	<p>url</p>	<p>It defines the Softkey URL which must be a url linking to an XML-format softkey.xml like <a href="ftp://pablo:123@192.168.0.231/VP2009/softkey.xml">ftp://pablo:123@192.168.0.231/VP2009/softkey.xml</a></p>

		<p>The default is blank.</p> <p>Note that the name has to be softkey.xml.</p>
<p>[ bin:/phone/resource/ui-config/xxx.xml, reboot=1 ]</p>	<p>url</p>	<p>It defines the UI configuration URL which must be a url linking to an XML-format UI configuration like</p> <p><a href="ftp://pablo:123@192.168.0.231/VP2009/xxx.xml">ftp://pablo:123@192.168.0.231/VP2009/xxx.xml</a></p> <p>The default is blank.</p> <p>Note: xxx should be the corresponding XML you want to upload.</p>
<p>[ bin:/rundata/userdata/contact-image/XXX.jpg, reboot=1 ]</p>	<p>url</p>	<p>It defines the Contact-image URL which must be a url linking to a contact image like</p> <p><a href="ftp://pablo:123@192.168.0.231/VP2009/XXX.jpg">ftp://pablo:123@192.168.0.231/VP2009/XXX.jpg</a></p> <p>The default is blank.</p> <p>Note: xxx has to be the picture you want to upload.</p>

Note: if you leave a parameter as blank, the value of this parameter will be deleted. For example:

```
[psw:/rundata/data/htpasswd]
admin=
var=
user=
```

It will configure the password of Admin user as NULL.

