

# **ES-530 User Manual**

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## 1. ES-530 Features

### 1.1 Appearance



### 1.2 Interface



Power: Output Power:12VDC,800mA.

WAN: RJ45 port.

LAN: RJ45 port.

### 1.3 Software

- Support two sip accounts at the same time.
- Redundancies server support.
- NAT, Firewall.
- DHCP client and server.
- Support PPPoE, (used for ADSL, cable modem connecting).
- Support major G7.xxx CODEC.
- VAD,CNG.

- G.165 compliant 16ms echo cancellation
- Tone generation and Local DTMF re-generation according with ITU-T
- E.164 dial plan and customized dial rules
- Hotline.
- Speed Dial
- Call Forward, Call Transfer, 3-way conference calls
- Record
- Caller ID display
- DND(Do Not Disturb),Black List,Limit List
- Upgrade firmware through FTP, TFTP or HTTP,.
- Web management.
- Telnet remote management.
- adjustable user password and super password

#### **1.4 Standard and Protocols**

- IEEE 802.3 /802.3 u 10 Base T / 100Base TX
- PPPoE: PPP Protocol over Ethernet
- DHCP Client and Server: Dynamic Host Configuration Protocol
- G.711 u/a; G729, G7231 5.3/6.3 audio Codec
- SIP RFC3261, RFC 2543
- TCP/IP: Internet transfer and control protocol
- RTP: Real-time Transport Protocol
- RTCP: Real-time Control Protocol
- VAD/CNG save bandwidth
- Telnet: Internet's remote login protocol
- DNS: Domain Name Server
- TFTP: Trivial File Transfer Protocol
- HTTP: Hyper Text Transfer protocol
- FTP: File Transfer protocol

#### **1.5 Operating requirement**

- Operation temperature: 0 to 40° C (32° to 104° F)
- Storage temperature: -30° to 65° C (-22° to 149° F)
- Humidity: 10 to 90% no dew

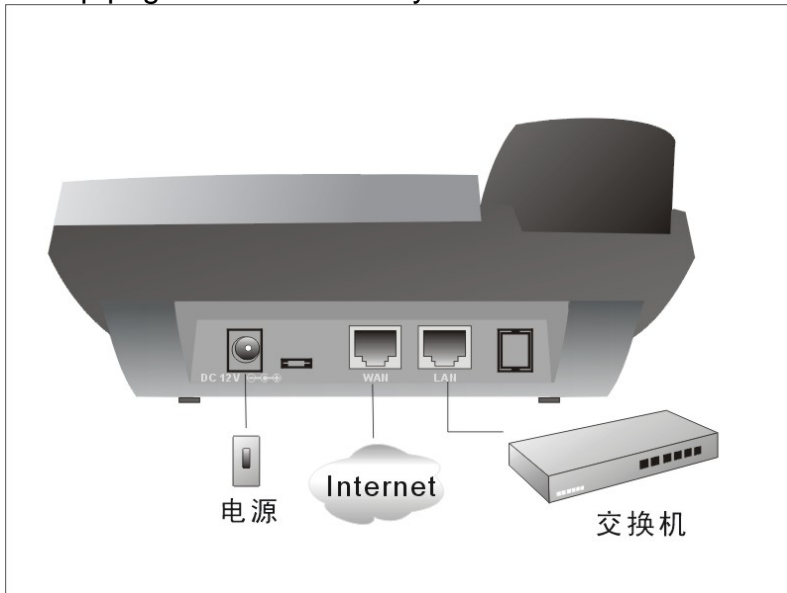
#### **1.6 Package**

- Size: 338x220x85mm
- Packing List
  - ✓ One ES-530 IP phone
  - ✓ One Power adaptor
  - ✓ One CD

## 1.7 Installation

Use ethernet cable to connect ES-530's LAN port and your computer. Set your computer's ip to the network 192.168.10.x or using dynamic obtain IP. Open your web browser and key in 192.168.10.1. Then you will see the logon page of ES-530, the default username and password is [admin/admin](#) for administrator and [guest/guest](#) for guest.

Set up page for VoIP use only:



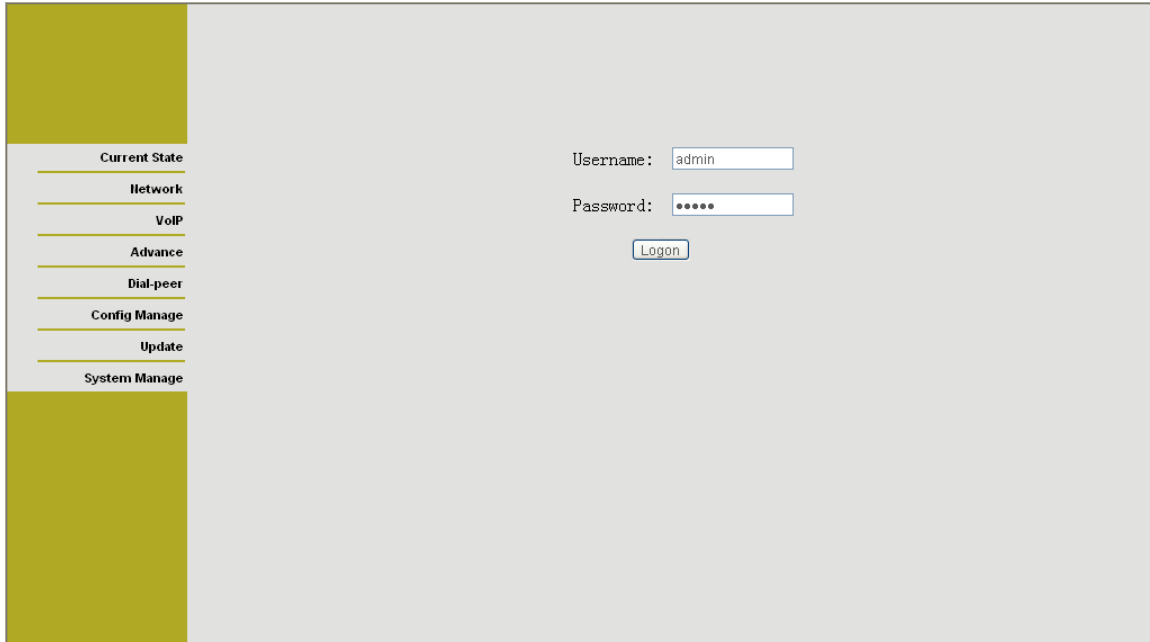
## 2. Web Configuration

### 2.1 Access Web setting page

Enter ES-530 IP address in the web browser and press ENTER to go to the log on page, and key in the username and password to access ES-530 setting page.

Default username and password is:

Administrator:	Username: admin	password: admin
User:	Username: guest	Username: guest



## 2.2 Current state

# IP Phone

---

**Running Status**

**Network**

<b>WAN</b>	Connect Mode	DHCP	MAC Address	00:09:45:52:8a:64
	IP Address	192.168.1.58	Gateway	192.168.1.1
<b>LAN</b>	IP Address	192.168.10.1	DHCP Server	ON

**VOIP**

<b>SIP</b>	Register Server	192.168.1.167	Proxy Server	192.168.1.167
	Register	ON	State	Registered
	Public Outbound	ON	SIP Stun	OFF

**Phone Number**

<b>Public SIP</b>	9000
<b>Private SIP</b>	

Version: VOIP PHONE v1.0 May 16 2006 17:05:24

This page shows ES-530's running state.

**Network** shows the WAN and LAN port connecting state and current settings.

**VoIP** part show the working state of VoIP, you can see whether ES-530 has registered the public sip server or H323 server.

**Phone Number** shows the H323, public sip and private sip phone numbers.



## 2.3 Network

### 2.3.1 Wan Config

# IP Phone

---

## WAN Configuration

Active IP	Current Netmask	MAC Address	Current Gateway
192.168.1.58	255.255.255.0	00:09:45:52:8a:64	192.168.1.1

<b>Mac Authenticating Code</b>	<input type="text"/>	Valid MAC
--------------------------------	----------------------	-----------

Static  
  DHCP  
  PPPoE

<b>Static</b>	IP Address	<input type="text" value="192.168.1.179"/>	Netmask	<input type="text" value="255.255.255.0"/>
	Gateway	<input type="text" value="192.168.1.1"/>	DNS Domain	<input type="text"/>
	Primary DNS	<input type="text" value="202.96.134.133"/>	Alternate DNS	<input type="text" value="202.96.128.68"/>

<b>PPPoE Server</b>	<input type="text" value="ANY"/>
<b>Username</b>	<input type="text" value="user123"/>
<b>Password</b>	<input type="password" value="*****"/>

WAN port network setting page.

Support static IP, dynamic obtain IP and PPPoE.

- **Configure Static IP:**
  - Enable *Static*;
  - Set ES-530's IP address in the *IP Address*;
  - Set netmask in the *Netmask* field;
  - Set router IP address in the *Gateway*;
  - DNS Domain:**
  - Set local DNS server in the *Preferred DNS* and the *Alternate DNS*
- **Configure to dynamic obtain IP**
  - Enable *DHCP*;
  - If there is DHCP server in your local network, ES-530 will automatically obtain WAN port network information from your DHCP server.
- **Configure PPPoE:**
  - Enable *PPPoE*
  - PPPoE server*: Enter "ANY" if no specified from your ITSP.
  - Enter PPPoE username and pin in the *username* and *password*.
  - ES-530 will automatically obtain WAN port network information from your ITSP if PPPoE setting and the setup are correct.

**Notice:** If user accesses the IP phone through WAN port. He/She should use the new IP address to access the IP phone when the WAN port address was changed.

## 2.3.2 LAN Config

**IP Phone**

---

**LAN Configuration**

<input type="checkbox"/> Bridge Mode	
IP <input type="text" value="192.168.10.1"/>	Netmask <input type="text" value="255.255.255.0"/>
<input checked="" type="checkbox"/> DHCP Service	<input checked="" type="checkbox"/> NAT
<input type="checkbox"/> Highest Priority of Voice Quality	

If you modify Bridge Mode,Ip or Netmask,the device will auto save and reboot !

**Bridge Mode:** Enable this option to switch to bridge mode. IP phone won't assign IP for its LAN port in bridge mode and its LAN and WAN port will be in the same network. **(This setting won't take effect unless you save the config and reboot the device)**

**IP,Netmask:** Set the IP and Netmask for the LAN

**DHCP Server:** Enable DHCP service in LAN port

**NAT:** Enable NAT.

**Highest Priority of Voice Quality:** Enable this option to guarantee voice quality. If there is high flux in the LAN port, ES-530 will limit the stream rate.

## 2.4 VoIP

### 2.4.1 SIP Config

# IP Phone

---

## SIP[Unregistered] Configuration

Register Server Addr	<input type="text" value="192.168.1.167"/>	Proxy Server Addr	<input type="text"/>
Register Server Port	<input type="text" value="5060"/>	Proxy Server Port	<input type="text"/>
Register Username	<input type="text" value="9000"/>	Proxy Username	<input type="text"/>
Register Password	<input type="password" value="••••"/>	Proxy Password	<input type="password"/>
Domain Realm	<input type="text"/>	Local SIP Port	<input type="text" value="5060"/>
Phone Number	<input type="text" value="9000"/>	Register Expire Time	<input type="text" value="60"/> seconds
Detect Interval Time	<input type="text" value="60"/> seconds	RFC Protocol Edition	<input type="text" value="RFC3261"/>
DTMF Mode	<input type="text" value="DTMF_RELAY"/>	User Agent	<input type="text" value="common"/>
<input checked="" type="checkbox"/> Enable Register			
<input checked="" type="checkbox"/> Enable Pub Outbound Proxy	<input type="checkbox"/> Auto Detect Server		
	<input type="checkbox"/> Server Auto Swap		

Setting page of public SIP server:

- Register Server Addr:** Register address of public SIP server
- Register Server Port:** Register port of public SIP server
- Register Username:** Username of your SIP account (Always the same as the phone number)
- Register Password:** Password of your SIP account.
- Proxy Server Addr:** IP address of proxy SIP server (SIP provider always use the same IP for register server and proxy server, in this case you don't need to configure the proxy server information. )
- Proxy Server Port:** Signal port of SIP proxy
- Proxy Username:** proxy server username
- Proxy Password:** proxy server password
- Domain Realm:** SIP domain, enter the sip domain if any, otherwise ES-530 will use the proxy server address as sip domain.
- Local SIP port:** Local SIP register port, default 5060
- Phone Number:** Phone number of your SIP account
- Register Expire Time:** register expire time, default is 600 seconds. ES-530 will auto configure this expire time to the server recommended setting if it is different from the SIP server.
- Detect Interval Time:** Co-work with the *Auto Detect Server*, if *Auto Detect Server* is enable, ES-530 will periodically detect if the SIP server is available according this setting.

**RFC Protocol Edition:** Current ES-530 SIP version. Set to RFC 2543 if the gate need to communicate to devices (such as CISCO5300) using the SIP 1.0. Default is RFC 3261.

**Enable Register:** Enable/Disable SIP register. ES-530 won't sent register info to SIP server if disable register.

**DTMF Mode:** DTMF signal sending mode: support RFC2833, DTMF\_RELAY (inband audio) and SIP info

**Auto Detect server:** co-work with *Server Auto Swap* and *Detect Interval Time*. Enable this option, ES-530 will periodically detect whether the public SIP server is available, if the server is unavailable, the ES-530 will switch to the back-up SIP sever, and continue detecting the public sip server. ES-530 will switch back to the primary SIP server if the server is available again.

**Server Auto Swap:** Please refer to *Auto Detect server* for detail.

**SIP(Default Protocol):** Use SIP protocol as Default Protocol.

## 2.5 Advance

### 2.5.1 DHCP Server

DHCP Service

DNS Relay

Name	Start IP	End IP	Lease Time	Netmask	Gateway	DNS
lan2005	192.168.10.2	192.168.10.50	1440	255.255.255.0	192.168.10.1	192.168.10.1

Lease Table Name	<input type="text"/>	Lease Time	<input type="text"/> minute	<input type="button" value="Add"/>
Start IP	<input type="text"/>	End IP	<input type="text"/>	
Netmask	<input type="text"/>	Gateway	<input type="text"/>	
DNS	<input type="text"/>			
Lease Table Name	lan2005 ▼			<input type="button" value="Delete"/>

DHCP server manage page.

User may trace and modify DHCP server information in this page.

**DNS Relay:** enable DNS relay function.

User may use below setting to add a new lease table.

**Lease Table Name:** Lease table name.

**Lease Time:** DHCP server lease time.

**Start IP:** Start IP of lease table.

**End IP:** End IP of lease table. Network device connecting to the ES-530 LAN port can dynamic obtain the IP in the range between start IP and end IP.

**Netmask:** Netmask of lease table.

**Gateway:** Default gateway of lease table

**DNS:** default DNS server of lease table.

**Notice:** This setting won't take effect unless you save the config and reboot the device

## 2.5.2 NAT

IP Phone

---

NAT Configuration

<input checked="" type="checkbox"/> IPsec ALG	<input checked="" type="checkbox"/> FTP ALG
<input checked="" type="checkbox"/> PPTP ALG	

---

<b>Inside IP</b>	<b>Inside TCP Port</b>	<b>Outside TCP Port</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Inside IP</b>	<b>Inside UDP Port</b>	<b>Outside UDP Port</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Transfer Type</b>	TCP <input type="button" value="v"/>	<b>Outside Port</b>	<input type="text"/>
<b>Inside IP</b>	<input type="text"/>	<b>Inside Port</b>	<input type="text"/>

---

DMZ Table

<b>Outside IP</b>	<b>Inside IP</b>
<input type="text"/>	<input type="text"/>
<input type="button" value="Add"/>	
<b>Outside IP</b>	<input type="button" value="Delete"/>
<input type="button" value="v"/>	

Advance NAT setting. Maximum 10 items for TCP and UDP port mapping.

- H323 ALG:**      Enable/Disable H323 ALG;
- IPSec ALG:**    Enable/Disable IPSec ALG;
- FTP ALG:**        Enable/Disable FTP ALG;
- PPTP ALG:**      Enable/Disable PPTP ALG;

- Transfer Type:** Transfer type using port mapping.
- Inside IP:**      LAN device IP for port mapping.
- Inside Port:**    LAN device port for port mapping.
- Outside Port:**   WAN port for port mapping.

Click [Add](#) to add new port mapping item and [Delete](#) to delete current port mapping item.

### 2.5.3 Net Service

Net Service

HTTP Port	80	Telnet Port	23
RTP Initial Port	10000	RTP Port Quantity	200

If modify HTTP or Telnet port,you'd better set it more than 1024,then save and restart.

DHCP Lease Table

Leased IP Address	Client Hardware Address
192.168.10.4	00-09-45-52-06-3f
192.168.10.3	00-09-45-63-75-98
192.168.10.2	00-0f-1f-a0-26-87

**HTTP Port:** configure HTTP transfer port, default is 80. User may change this port to enhance system's security. When this port is changed, please use `http://xxx.xxx.xxx.xxx:xxxx/` to reconnect.

**Telnet Port:** configure telnet transfer port, default is 23.

**RTP Initial Port:** RTP initial port.

**RTP Port Quantity:** Maximum RTP port quantity, default is 200

---

**Notice:**

Settings in this page won't take effect unless save and reboot the device.

If you need to change telnet port or HTTP port, please use the port greater than 1024, because ports under 1024 is system remain ports.

HTTP service if HTTP is set to 0.

### 2.5.4 Firewall settings

Firewall Configuration

in\_access enable       out\_access enable

Firewall Input Rule Table

Index	Deny/Permit	Protocol	Src Addr	Src Mask	Des Addr	Des Mask	Range	Port

Firewall Output Rule Table

Index	Deny/Permit	Protocol	Src Addr	Src Mask	Des Addr	Des Mask	Range	Port

Input/Output: <input type="text" value="Input"/>	Deny/Permit: <input type="text" value="Deny"/>
Protocol Type: <input type="text" value="UDP"/>	Port Range: <input type="text" value="more than"/>
Src Addr: <input type="text"/>	Des Addr: <input type="text"/>
Src Mask: <input type="text"/>	Des Mask: <input type="text"/>

Input/Output: <input type="text" value="Input"/>	Index to be deleted: <input type="text"/>
--	---

Firewall setting page. User may set up firewall to prevent unauthorized Internet users from accessing private networks connected to the Internet (input rule), or prevent unauthorized private network devices to access the internet.

Access list support two type limits: input\_access limit or output\_access limit. Each type support 10 items maximum.

ES-530 firewall filter is base WAN port. So the source address or input destination address should be WAN port IP address.

Configuration:

**in\_access enable** enable in\_access rule

**out\_access enable** enable out\_access rule

**Input/Output:** specify current adding rule is input rule or output rule.

**Deny/Permit:** specify current adding rule is deny rule or permit rule.

**Protocol Type:** protocol using in this rule: TCP/IP/ICMP/UDP.

**Port Range:** port range if this rule

**Src Addr:** source address. Can be single IP address or network address.

**Dest Addr:** destination address. Can be IP address or network address.

**Src Mask:** source address mask. Indicate the source is dedicate IP if set to 255.255.255.255. Otherwise is network ID



**Des Mask:** Destination address mask. Indicate the source is dedicate IP if set to 255.255.255.255. Otherwise is network ID

## 2.5.5 QoS settings

**802.1p Configuration**

QoS Enable  QoS Table Include

Submit

IP	Netmask
IP	<input type="text"/>
Netmask	<input type="text"/>

Add Delete

ES-530 IP phone implement QoS based on 802.1p, The QoS is used to mark the network communication priority in the data link/MAC sub-layer. ES-530 will sorted the packets using the QoS and sends it to the destination.

**QoS Enable:** Enable QoS service.

**QoS Table Include:** enable include QoS table, ES-530 will only provide QoS service to the network address included in the QoS table. Disable the option. ES-530 provides QoS service to the network address outside the QoS table.

**QoS Table Item:** user can set the QoS Table using IP and Netmask. the IP can be network address or dedicate IP address (set netmask to 255.255.255.255)

**Delete QoS Table:** enter the IP/Netmask configure and select delete to delete corresponding item.

## 2.5.6 Advance SIP settings

**Advance SIP Configuration**  
**Public[Registered]Private[Unregistered]**  
**STUN NAT Transverse[FALSE]**

STUN Server Addr	<input type="text"/>	STUN Server Port	<input type="text" value="3478"/>
Public Alter Register	<input type="text"/>	Public Alter Proxy	<input type="text"/>
Register Port	<input type="text" value="5060"/>	Proxy Port	<input type="text"/>
Register Username	<input type="text"/>	Proxy Username	<input type="text"/>
Register Password	<input type="text"/>	Proxy Password	<input type="text"/>
Private Register	<input type="text"/>	Private Proxy	<input type="text"/>
Register Port	<input type="text" value="5060"/>	Proxy Port	<input type="text"/>
Register Username	<input type="text"/>	Proxy Username	<input type="text"/>
Register Password	<input type="text"/>	Proxy Password	<input type="text"/>
Private Domain	<input type="text"/>	Expire Time	<input type="text" value="60"/> seconds
Private Number	<input type="text"/>	STUN Effect Time	<input type="text" value="50"/> minute
Private User Agent	<input type="text" value="common"/>	<input type="checkbox"/> Enable SIP Stun	
<input type="checkbox"/> Enable Private Register		<input type="checkbox"/> Enable Private Outbound Proxy	

This page is used to set the private sip server, stun server, and back up sip server information.

STUN Server setting:

- STUN Server Addr:** configure stun server address;
- STUN Server Port:** configure stun server port default 3478
- STUN Effect Time:** stun detect NAT type circle, unit: minute.
- Enable SIP STUN:** enable/disable stun.

Public Alter Register	<input type="text"/>	Public Alter Proxy	<input type="text"/>
Register Port	<input type="text" value="5060"/>	Proxy Port	<input type="text"/>
Register Username	<input type="text"/>	Proxy Username	<input type="text"/>
Register Password	<input type="text"/>	Proxy Password	<input type="text"/>

Public Alter Register: Public Alter server provide redundancy for the public server, if the public server is unavailable, ES-530 will use the alter server, and switch back to the public server when it is available. Account setting in public alter setting should be the same as the public server.

Please refer to [SIP Config](#) for the setting for how to set the public alter server.

Private Register	<input type="text"/>	Private Proxy	<input type="text"/>
Register Port	<input type="text" value="5060"/>	Proxy Port	<input type="text"/>
Register Username	<input type="text"/>	Proxy Username	<input type="text"/>
Register Password	<input type="text"/>	Proxy Password	<input type="text"/>
Private Domain	<input type="text"/>	Expire Time	<input type="text" value="60"/> seconds
Private Number	<input type="text"/>	STUN Effect Time	<input type="text" value="50"/> minute

User can register two sip servers: public sip server and private sip server.these two sip servers are independent from each other and running in the same time.

For how to configure private sip server. Please refer to [SIP Config](#)

### 2.5.7 Digital Map

# IP Phone

---

## Digital Map Configuration

End with "#"

Fixed Length

User-defined Rule

Time out  (3--30)

## Digital Map Table

Prefix Number	Length
<input type="text"/>	<input type="text"/>
Prefix to be deleted <input type="button" value="v"/>	<input type="button" value="Delete"/>

Digit map is a set of rules to determine when the user has finished dialing.

ES-530 support below digital map:

Digital Map is based on some rules to judge when user end their dialing and send the number to the server. ES-530 support following digital map:

- End With "#": Use # as the end of dialing.
- Fixed Length: When the length of the dialing match, the call will be sent.
- Timeout: Specify the timeout of the last dial digit. The call will be sent after timeout
- Prefix + Length: If the Prefix and Length match, the call will be sent.

## 2.5.8 Call Service Settings

Call Service

<b>Hotline</b>	<input style="width: 100%;" type="text"/>
<b>Call Forward</b>	<input checked="" type="radio"/> Off <input type="radio"/> Busy <input type="radio"/> No Answer <input type="radio"/> Always
	Phone Number <input style="width: 100px;" type="text"/> Addr <input style="width: 100px;" type="text"/> Port <input style="width: 50px;" type="text" value="5060"/>
<input type="checkbox"/> No Disturb	<input type="checkbox"/> Ban Outgoing
<input checked="" type="checkbox"/> Enable Call Transfer	<input checked="" type="checkbox"/> Enable Call Waiting
<input checked="" type="checkbox"/> Enable Three Way Call	<input checked="" type="checkbox"/> Accept Any Call
<input type="checkbox"/> Auto Answer	<input type="checkbox"/> Enable Voice Record
<input type="checkbox"/> User-Defined Voice	<input checked="" type="checkbox"/> Incoming Record Playing
<input style="width: 30px;" type="text" value="20"/> No Answer Time(seconds)	

<b>Black List</b>			
<input style="width: 150px;" type="text"/>	<input type="button" value="Add"/>	<input style="width: 30px;" type="text" value="v"/>	<input type="button" value="Delete"/>

<b>Limit List</b>			
<input style="width: 150px;" type="text"/>	<input type="button" value="Add"/>	<input style="width: 30px;" type="text" value="v"/>	<input type="button" value="Delete"/>

User configure the value add service such as hotline, call forward, call transfer, 3-way conference call .etc in this page

**Hotline:** configure hotline number. ES-530 immediately dials this number after hook-off if it is set.

**Call Forward:** Please refer to [Value add service](#) for detail.

**No Disturb:** DND, do not disturb, enable this option to refuse any calls.

**Ban Outgoing:** Enable this to ban outgoing calls.

**Enable Call Transfer:** Please refer to [Value add service](#) for detail.

**Enable Three Way Call:** Please refer to [Value add service](#) for detail.

**Enable Call Waiting:** Enable/disable Call Waiting

**Accept Any Call:** If this option is disable, ES-530 refuse the incoming call when the called number is different from ES-530's phone number.

**No Answer Time:** no answer call forward time setting.

**Auto Answer:** Enable/disable auto answer function.

**Enable Voice Record:** Enable/disable answering machine function. Please refer to [Record Function](#) for detail.

**User-defined Voice:** Use customized greeting message.

**Incoming Record Playing:** simultaneously play the message when recording.

**Black List:** incoming call in these phone numbers will be refused.

**Limit List:** outgoing calls with these phone numbers will be refused

## 2.5.9 MMI Filter

The screenshot shows the 'MMI Filter' configuration page. At the top right, the title 'MMI Filter' is displayed in yellow. Below the title, there is a checkbox labeled 'MMI Filter'. To the right of the checkbox is an empty text input field. Below these elements is an 'Apply' button. Further down, there are two input fields: 'Start IP' and 'End IP'. At the bottom of the form, there are two rows of controls. The first row contains 'Start IP' with an input field, 'End IP' with an input field, and an 'Add' button. The second row contains 'Start IP to be deleted' with a dropdown menu and a 'Delete' button.

MMI filter is used to make access limit to ES-530 IP phone.

When MMI filter is enable. Only IP address within the *start IP* and *end IP* can access ES-530 IP phone.



### 2.5.10 Audio Settings

IP Phone

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DSP Configuration

<b>Coding Rule</b>	g711Ulaw64k ▾	<b>G729 Payload Length</b>	20ms ▾
<b>Signal Standard</b>	China ▾	<b>Handdown Time</b>	200 ms
<b>Input Volume</b>	3 (1-9)	<b>Output Volume</b>	7 (1-9)
<b>Handfree Volume</b>	4 (1-9)	<input type="checkbox"/> VAD	

**CODEC:** select the prefer CODEC; support ulaw, alaw,G729 and G7231 5.3/6.3

**Signal Standard:** Signal standard for different area.

**Input Volume:** Handset in volume.

**Output Volume:** Handset out volume.

**Handfree Volume:** Hand free volume

**Handdown Time:** hand down detect time.

**G729 Payload Length:** G729 payload length

**VAD:** Enable/disable Voice Activity Detection

## 2.6 Dial-Peer Settings

**Dial-Peer**

Number	Call Mode	Destination	Port	Alias	Suffix	Del length
2T	sip	255.255.255.255	5060	del	no suffix	1
3T	sip	0.0.0.0	5060	del	no suffix	1
123	sip	0.0.0.0	5060	all:8675583018049	no suffix	0
0T	sip	0.0.0.0	5060	rep:86	no suffix	1
179	sip	192.168.1.179	5060	no alias	no suffix	0

2T

Please refer to [How to use dial rule](#) for detail.

## 2.7 Config Manage

**Save Config:** save current settings.

**Clear Config:** restore to default settings.

---

**Notice:** clear config in admin mode, all settings restores to factory default; clear config in guest modem, all settings except H323, sip, advance sip restore to factory default.

## 2.8 Update

**Web Update:** Update IP phone's settings or firmware. Firmware file is .z extension when configure file is .cfg extension, ES-530 will auto select configure update or firmware update according the extension.

**TFTP/FTP Update:** upload/download the configure file with FTP or TFTP server. or download firmware from FTP or TFTP server

## 2.9 System Manage

### 2.9.1 Account Manage

Account Configuration

Keypad password	<input style="width: 90%;" type="password" value="..."/>
-----------------	--

---

User Name	User Level
admin	Root
guest	General

Set web access account or keypad password of ES-530.

### 2.9.2 Phone Book:

### 2.9.3 Syslog Config:

### 2.9.4 Time Set:

### 2.9.5 Reboot:

Reboot IP phone, some setting needs to reboot to make it works. Please always save config before reboot, otherwise the setting will return to previous setting.

### 3 Use keypad configure ES-530 IP phone

#### 3.1 Keypad function

User can configure ES-530 through its keypad. List below is the keypad function

Keypad	Mode	Function/Display
Idle mode	----	show current time
Sysinfo	Idle mode	circularly show phone number,wan ip, gateway info
Menu/OK	Idle mode	enter config mode, default password 123
	config mode	confirm or enter sub-menu
Exit	config mode	exit
Up	Calling mode	volume up (Max:9)
	config mode	Page up
Down	Calling mode	volume down (Min:1)
	config mode	Page down
Del	Calling mode	Delete digits
	config mode	Delete digits
Mute	Calling mode	Mute
Out call	Idle mode	Outgoing call menu
In call	Idle mode	Incoming call menu
Record	Idle mode	Enter record menu, usage refer <a href="#">FAQ</a>
Pbook	Idle mode	Enter Phone book set up
Handfree	Calling mode	Handfree
0–9	Calling mode	Digits 0~9
	config mode	Hit quickly to switch between numeric or alphabetic
*	Calling mode	Use in <a href="#">3-way conference call</a> .
	config mode	Use as "." In the ip address setting
#	Calling mode	Use as end key of dialing or the dial number
Hold	Calling mode	Hold, detail refer <a href="#">value add service</a>
FWD	Calling mode	Transfer, detail refer <a href="#">value add service</a>
Redial	Calling mode	Redial key
Send	Calling mode	call key
No.1~No.9	Idle mode	Speed dial key

### 3.2 Keypad Menu

User may use **SET, Menu/ok, Exit, Vol+, Vol-** to config ES-530 detail setting. Press **Menu/ok** to enter config mode, and the default password is 123.

Below list the keypad menu of ES-530

ES-530 Keypad Menu			
Level 1	Level 2	Level 3	Level 4
Network	LAN	IP	
		Netmask	
		DHCP Server	
		NAT	Switch
			FTPAlg
			IPSec alg
			PPTPAlg
	WAN	Status	
		Static Net	1. IP
			2. NetMask
			3. Gateway
			4. DNS
			5. DNS2
	PPPoE	User name	
Password			
QoS			
Call Feature	Phone-number	H323	
		Public SIP	
		Private SIP	
	Limit-List	Current	
		ADD	
		DEL	
	Black-List	Current	
		ADD	
		DEL	
	FastCall		
	Three Call		
	Call-Transfer		
	Call-Waiting		
	Call-Forward	Condition	

		H.323	Transfer Num
			Transfer IP
			Port
		SIP	Transfer Num
			Transfer IP
			Port
	Dial-Rule	End With #	
Fixed Length		Switch	
		Length	
SIP	Reg Status	Public Reg	
		Private Reg	
	Reg Switch	Public	
		Private	
	Server	Public	Register
			Proxy
			Alt-Register
		Private	Alt-Proxy
			Register
			Proxy
	Domain	Public	
		Private	
	User Agent	Public	
		Private	
	Detect-server		
	Dtmf-mode		
	Interval-time		
	Swap-server		
	RFC-version		
	Signal-Port		
Stun	Switch		
	Addr		
	Port		
	Effect Time		
DSP	Codec		
	Handdown-time		
	Dtmf-Volume		



	Input-volume	
	Output-Volume	
Other Setting	Syslog	Switch
		Server-IP
		Server-Port
4. System	1. Save	
	2. Reboot	
	3. Set Default	

## 4 Telnet Console

### 4.1 Introduce

#### 4.1.1 Basic structure

User may use telnet command to access and manage IP phone.

ES-530 adopts tree structure for telnet. Every node contains its sub-nodes or local command. User can type “help” or “?” whenever to see sub-nodes and all local command under current node.

Besides local command, there are some global commands can be used in each node.

#### 4.1.2 Basic command

**Logout:** exit telnet mode.

**Write:** save current settings.

Type sub-nodes name in current node to switch to sub-node.

Type “!” or “exit” in current node to return to parent-node.

Type “help” or “?” can see all sub-nodes and all local command under current node, every help item has comments such as <command> or <node> to distinguish sub-nodes and local command. Type “help” or “?” in command can see all parameters using in this command.

When typing node name or command, user no need to key the full name, use **TAB** button will make it more efficient.

There are two types in command parameters: **optional** and **required**. “required” parameter use “-” as prefix and “optional” use “\_” as prefix. User may type “-” or “\_” then press **TAB** button for complementarily.

## 4.2 Global Command

Global command is available under all nodes, ES-530 support following commands:

Command	Function	Example
chinese	Set to Chinese UI	#chinese
clear	Clear telnet screen	#clear
english	Set to English UI	#english
exit	Return to parent-node	#exit
help	1. Show help info 2. Show sub-nodes and local command	1. #help ping 2. #help
history	Show command history	#history
logout	Exit	#logout
ping	Ping command, use to check network,	#ping www.google.com
tree	Print tree structure of current command	#tree
who	Show current user	#who
write	Save setting to flash	#write

## 4.3 Tree Structure

### 4.3.1 account

path: <account>#  
 [stop]start Syslog ---syslog [no] start  
 Configure Syslog server address and port ---syslog server -ip x.x.x.x \_port xxx  
**Example:** #<config-account-syslog>#server -ip 202.112.20.10  
 Show syslog settings ---syslog show  
 Show all account settings ---show

### 4.3.2 config

#### ➤ accesslist firewall config

path: <config-accesslist>#  
 add firewall rule ---entry -I/O xxx -P/D xxx -proto xxx -srcaddr x.x.x.x  
 -srcmask x.x.x.x -desaddr x.x.x.x -desmask x.x.x.x -portrange xxx -portnum xxx  
**Example:** <config-accesslist>#entry -I/O input -P/D deny -proto udp -straddr 202.112.10.1  
 -srcmask 255.255.255.0 -desaddr 210.25.132.1 -desmask 255.255.255.0 -portrange neq  
 -portnum 5060  
 delete firewall rule ---no entry -I/O xxx -index xxx  
**Example :** <config-accesslist>#no entry -I/O input -index 1  
 Show firewall settings ---show  
 [disable] enable input filter ---[no]in-access  
 [disable] enable output filter ---[no]out-access

#### ➤ DHCP

path: <config-dhcp>#  
 add DHCP rule ---entry -name xxx -startip x.x.x.x -endip x.x.x.x  
 -netmask x.x.x.x -gateway x.x.x.x -dnsserver x.x.x.x \_time xxx  
**Example:** <config-dhcp>#entry -name lan2004 -startip 192.168.1.2 -endip 192.168.1.254  
 -netmask 255.255.255.0 -gateway 192.168.1.1 -dnsserver 192.168.10.18  
 delete DHCP rule ---no entry -name xxx  
**Example:** <config-dhcp>#no entry -name lan2004  
 Show DHCP settings ---show  
 [disable]enable DNS-relay ---[no]dns-relay

#### ➤ dialrule

path: <config-dialrule>#  
 [disable] enable End with # ---[no]endchar  
 Set end with fix length ---fixlen xxx  
 Disable end with fix length ---no fixlen  
 Set timeout to send ---timeout-send xxx  
 Disable timeout to send ---no timeout-send  
 Add digital map ---entry -prefix xxx -length xxx  
**Example:** <config-dialrule>#entry -prefix 010 -length 11  
 Delete digital map rule ---no entry -prefix xxx  
**Example:** <config-dialrule>#no entry -prefix 010  
 Show current digital map ---show

#### ➤ LAN interface settings

path: <config-interface-fastethernet-lan>#  
 [disable]enable bridge mode ---[no]bridgemode  
 [disable]enable DHCP service ---[no]dhcp-server  
 [disable]enable NAT ---[no]nat

Show current DHCP rules            ---dhcpshow  
 Show LAN port IP address         ---ipshow  
 Show NAT info                    ---natshow  
 Change LAN port IP address       ---ip --addr x.x.x.x --mask x.x.x.x  
**Example:**<config-interface-fastethernet-lan>#ip --addr 192.168.1.10 --mask 255.255.255.0

### ➤ WAN interface settings

path: <config-interface-fastethernet-wan>#  
 [disable]enable dhcp client       ---[no]dhcp  
 [disable]enable pppoe            ---[no]pppoe  
 [disable]enable QOS              ---[no]qos  
 Set default gateway IP            ---gateway x.x.x.x  
 Clear default gateway IP         ---no gateway  
 Set WAN port IP address          ---ip --address x.x.x.x -mask x.x.x.x  
**Example:**<config-interface-fastethernet-wan>#ip --addr 202.112.241.100 --mask 255.255.255.0  
 You need to reconnect if the WAN port has been changed.  
 Show WAN port settings            ---show

### ➤ MMI Filter

path: <config-mmifilter>#  
 add filter rule                   ---entry --start x.x.x.x --end x.x.x.x  
**Example:**<config-mmifilter>#entry --start 202.112.20.1 --end 202.112.20.255  
 Delete filter rule                ---no entry --start x.x.x.x  
**Example:**<config-mmifilter>#no entry --start 202.112.20.1  
 Show filter rule                  ---show  
 [disable]enable MMI filter        ---[no]start-filter

### ➤ NAT settings

path: <config-nat>#  
 [disable]enable ftp alg           ---[no]ftpalg  
 [disable]enable ipsec alg        ---[no]ipsecalg  
 [disable]enable pptp alg         ---[no]pptpalg  
 Add TCP mapping rule             ---tcp-entry --ip x.x.x.x --lanport xxx --wanport xxx  
**Example:**<config-nat>#tcp-entry --ip 192.168.1.5 --lanport 1720 --wanport 1000  
 Delete TCP mapping rule          ---no entry --ip x.x.x.x --lanport xxx --wanport xxx  
**Example:**<config-nat>#no tcp-entry --ip 192.168.1.5 --lanport 5060 --wanport 1000  
 Add UDP mapping rule             ---udp-entry --ip x.x.x.x --lanport xxx --wanport xxx  
 Delete UDP mapping rule         ---no udp-entry --ip x.x.x.x --lanport xxx --wanport xxx  
 Show NAT info                    ---show

### ➤ Netservice

path: <config-netservice>#  
 Set DNS address                   ---dns -ip x.x.x.x \_domain xxx  
**Example:**<config-netservice>#dns --ip 202.112.10.36 \_domain voip.com  
 Set alternate DNS address        ---alterdns -ip x.x.x.x \_domain xxx  
 Set hostname                    ---hostname xxx  
 Set http access port             ---http-port xxx

Show http access setting                    ---http-port  
 Set telnet access port                    ---telnet-port xxx  
 Show telnet access port                   ---telnet-port  
 Set RTP initial port and quantity        ---media-port --startport xxx --number xxxx  
**Example:**<config-netservice>#media-port --startport 10000 --number 200  
 Add route rule                            ---route --gateway x.x.x.x --addr x.x.x.x --mask x.x.x.x  
**Example:**Arcihfone<config-netservice>#route --gateway 202.112.10.1 --addr 202.112.210.1  
 --mask 255.255.255.0  
 Delete route rule                         ---no route --gateway x.x.x.x --addr x.x.x.x --mask x.x.x.x  
 Show route info                            ---route  
 Show netservice info                      ---show

### ➤ Dial-peer settings

path: <config-pbook>#  
 [disable]enable calling through GK and proxy    ---[no]enableGKandProxy  
 Add number-IP bond entry                   ---entry --number xxx --ip x.x.x.x --protocol xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip

Add number-IP bond and add prefix to the dial number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_add xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip \_add 123(dial 100 and will send 123100 according this rule)

Add number-IP bond and replace the destination with another number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_all xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip \_all 123( user dial 100 and gateway will sent 100 instead)

Add number-IP bond and delete the prefix of the destination number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_del xxx  
**Example:**<config-pbook>#entry --number 1234 --ip 202.112.20.100 --protocol sip \_del 2 (dial 1234 will send 34 instead)

Add number-IP bond and replace the prefix with another number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_rep xxx \_length xxx  
**Example:**<config-pbook>#entry --number 1234 --ip 202.112.20.100 --protocol sip \_rep 567 \_length 2(dial 1234 will send 56734)

Delete dial-peer entry                    ---no entry --number xxx  
 Show current dial-peer rules              ---show  
 Set default voip protocol                ---default-protocol xxx

### ➤ Port settings

path: <config-port># 或<config-port X>#  
 set accep relay mode                    ---accept-relay xxx  
 set callerid mode                        ---callerid xxx  
 disable callerid                         ---no callerid  
 config call forward    ---callforward --conditon xxx --number xxx --ip xxx --port xxx --protocol xxx  
**Example:**<config-port 0>#callforward --condition busy --number 100 --ip 202.112.10.100 -port 5060 --protocol sip

Disable call forward	---no callforward
[disable]enable call transfer	---[no]calltransfer
[disable]enable call waiting	---[no]callwaiting
Set prefer codec	---codec xxx
Set DTMF gain	---dtmfvolume xxx
Set black list	---in-limit xxx
Show black list	---in-limit
Set input volume	---input xxx
Set outgoing limit list	---out-limit xxx
Show outgoing limit list	---out-limit
Set output volume	---output xxx
[disable]enable outgoing limit	---[no]shutdown out
[disable]enable black list	---[no]shutdown in
[disable]enable outgoing limit and black list	---[no]shutdown
[disable]enable 3-way conference	---[no]threetalk
Show port settings	---show

### ➤ PPPoE settings

path: <config-pppoe>#

PPPoE account settings ---auth -user xxx -password xxx

**Example:**<config-pppoe>#auth -user aaa -password 123456

[disable]enable service settings ---[no]service xxx

Show pppoe settings ---show

### ➤ QoS settings

path: <config-qos>#

[delete]add QoS table entry --- [no]entry -addr x.x.x.x -mask x.x.x.x

**Example:**<config-qos>#entry -addr 202.112.10.1 -mask 255.255.255.0

[disable]enable include QoS table ---[no]include

Show QoS settings ---show

### ➤ SIP settings

path: <config-sip>#

[disable]enable registration ---[no] register

[disable]enable auto detect server ---[no] detect-server

Set sip domain ---default-domain xxx

Set DTMF mode ---dtmf-mode xxx

Set auto detect interval time ---interval-time xxx

Set RFC edition ---rfc-version xxx

[disable]enable auto swap server --- [no]swap-server

Set sip account ---number-password -number xxx -password xxx

Set local SIP signal port --- signalport xxx

Set proxy server ---server proxy -ip x.x.x.x \_port xxx \_user xxx  
\_password xxx

**Example:**<config-sip-server># proxy ip 210.25.23.22 \_port 5060 \_user aaa \_password 123456

Set register server info ---server register -ip x.x.x.x \_port xxx -user xxx  
\_password xxx

Set alter proxy info ---alter-server proxy -ip x.x.x.x \_port xxx \_user xxx  
\_password xxx

Set alter server info	---alter-server register -ip x.x.x.x _port xxx _user xxx
_password xxx	
[disable]enable stun server	---stun [no]enable
Set stun detecting interval time	---stun interval-time xxx
Set stun server ip and port	---stun -ip x.x.x.x -port xxx
Show current sip info	---show

### ➤ User management

path: <config-user>#

Change user right. ---access -user xxx -access xxx

**Example:**<config-user>#access -user aaa -access 7

Change user password ---password -user xxx

Add new user ---entry -user xxx -access xxx

**Example:**<config-user>#entry -user abc -access 7

Delete user entry ---no entry -user xxx

Show current sip info ---show



### 4.3.3 Debug (Level 0~7)

path: <debug>#  
show debug setting ---show  
[disable]enable debug all modules ---[no] all xxx  
[disable]enable debug app module ---[no] app xxx  
[disable]enable debug cdr module ---[no] cdr xxx  
[disable]enable debug sip module ---[no] sip xxx  
[disable]enable debug h323 module ---[no] h323 xxx  
[disable]enable debug tel module ---[no] tel xxx  
[disable]enable debug dsp module ---[no] dsp xxx

### 4.3.4 download configure to flash

usage: #download tftp -ip x.x.x.x -file xxx

#download ftp -user xxx -password xxx -ip x.x.x.x -file xxx

**Example:** #download ftp -user abc -password 123 -ip 202.112.20.15 -file AG188.cfg

### 4.3.5 password

usage: #password

Enter new password:xxx

Confirm new password:xxx

### 4.3.6 reload

usage: #reload

Reboot system

### 4.3.7 show system running info

➤ accesslist

path: <show>#

show: accesslist (firewall) settings

**Example:** #<show>#accesslist

➤ basic

path: <show>#

show network status

**Example:** #<show>#basic

➤ call

path: <show>#

show current call info

**Example:** #<show>#call active

➤ capability

path: <show>#

show CODEC capability

**Example:** #<show>#capability

➤ debugging

path: <show>#

show debug info

**Example:** #<show>#debugging

- dhcp-server  
path: <show>#  
show LAN status and DHCP server info  
**Example:** #<show># dhcp-server
  
- dial-rule  
path: <show>#  
show digital-map info  
**Example:** #<show># dial-rule
  
- interface  
path: <show>#  
show LAN info  
**Example:** #<show>#interface fastethernet lan  
show WAN info  
**Example:** #<show>#interface fastethernet wan
  
- ip  
path: <show>#  
show arp table info  
**Example:** #<show>#ip arp
  
- Show DNS server info  
**Example:** #<show>#ip dns
  
- Show netstate info  
**Example:** #<show>#ip netstat
  
- Show route info  
**Example:** #<show>#ip route
  
- Show icmp packets Stat.  
**Example:** #<show>#ip icmp
  
- Show igmp packets Stat.  
**Example:** #<show>#ip igmp
  
- Show ip packets Stat.  
**Example:** #<show>#ip ip
  
- Show RTP packets Stat.  
**Example:** #<show>#ip rtp
  
- Show TCP packets Stat.  
**Example:** #<show>#ip tcp
  
- Show UDP packets Stat.  
**Example:** #<show>#ip udp
  
- memory  
path: <show>#  
show IP phone memory  
**Example:** #<show>#memory

➤ nat

path: <show>#

show NAT information

**Example:** #<show>#nat

➤ port

path: <show>#

show caller-ID info

**Example:** #<show>#port callerID

show dsp info

**Example:** #<show>#port dsp

show hotline info

**Example:** #<show>#port hotline

show black list info

**Example:** #<show>#port in-limit

show outgoing limit info

**Example:** #<show>#port out-limit

show current phone number

**Example:** #<show>#port number

show current port status

**Example:** #<show>#port status

➤ PPPoE

path: <show>#

show PPPoE info

**Example:** #<show># pppoe

➤ qos

path: <show>#

show QoS table info

**Example:** #<show>#qos

➤ sip

path: <show>#

show sip info

**Example:** #<show>#sip

➤ udptunnel

path: <show>#

show UDP tunnel info

**Example:** #<show># udptunnel

➤ uptime

path: <show>#

show running time

**Example:** #<show># uptime

➤ version

path: <show>#

show IP phone version

**Example:** #<show># version

#### 4.3.8 telnet and logout

Usage: #telnet -target -port

Login:xxx

Password:xxx

#

#logout

#### 4.3.9 timesettings

path: <time>#

---manualset -year xxx -month xxx -day xxx -hour xxx -minute xxx -second xxx

**Example:** <time>#manulset -year 2004 -month 10 -day 1 -hour 8 -minitute 30 -second 0

[disable]enable SNTP server

---sntp [no] start

Set SNTP IP address

---sntp server x.x.x.x

Set SNTP server timeout

---sntp timeout xxx

Set timezone (-12~+12)

---sntp zone xxx

Show SNTP info

---sntp show

Show current time

---print

#### 4.3.10 tracert trace network path info

usage: #tracert -host

**Example:** #tracert !! [HYPERLINK "http://www.google.com"](http://www.google.com) ¶ www.google.com<sup>⊥</sup>

#### 4.3.11 update IP phone

usage: # update ftp -user xxx -password xxx -ip x.x.x.x -file xxx

# update tftp -ip x.x.x.x -file xxx

**Example:** # update ftp -user abc -password 123 -ip 202.112.20.15 -file AG188.dlf

#### 4.3.12 upload configure file

usage: # upload ftp -user xxx -password xxx -ip x.x.x.x -file xxx

# upload tftp -ip x.x.x.x -file xxx

## 4.4 Network Diagnosis

There are some telnet commands for checking your network. Now Listing below for your information

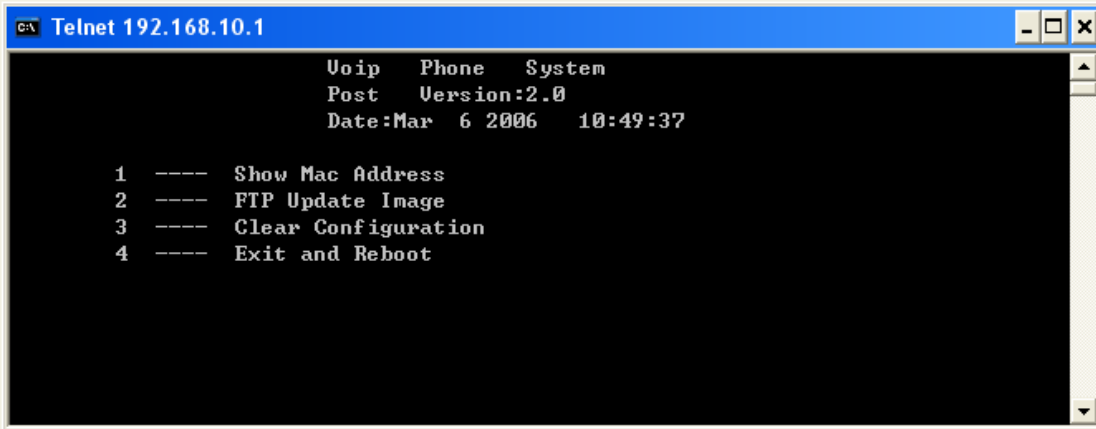
Command	Function	Example
ping	Check if the destination is accessible	#ping www.google.com
tracert	Show network path info	#tracert <a href="http://www.google.com">www.google.com</a>
show basic	Show network settings	#show basic
show ip route	Show route table	#show ip route
show ip arp	Show arp table	#show ip arp
show ip netstat	Netstat programe	#show ip netstat
telnet	Telnet to another device	#telnet 192.168.1.2

## 4.5 Restore to factory default

#setdefault clear IP phone settings expect network part

#setdefault all clear all settings.

## 5 POST Mode(safe mode)

A screenshot of a Telnet window titled "Telnet 192.168.10.1". The window has a blue title bar and standard window controls. The main content area is black with white text. At the top, it displays "Uoip Phone System", "Post Version:2.0", and "Date:Mar 6 2006 10:49:37". Below this, there is a menu with four options, each preceded by a number and four dashes:

```
1 ---- Show Mac Address
2 ---- FTP Update Image
3 ---- Clear Configuration
4 ---- Exit and Reboot
```

ES-530 provide safe mode. When there is booting problem because of setting problem or firmware problem. User can restore the factory setting or upgrade to a new firmware to solve this problem.

How to enter safe mode?

There will be a schedule bar in the ES-530 booting procedure, press # key within the first 5 seconds, then the phone will go to POST mode. It has a default ip 192.168.10.1 in POST mode. User may change the PC's IP address to 192.168.10.xx and telnet to 192.168.10.1 to access the IP phone in POST mode.

User can accord the guide in post mode to clear the settings or upgrade the firmware.

## 6 FAQ

### 6.1 How many servers may ES-530 register simultaneously?

ES-530 is able to register two SIP servers simultaneously, and redundancy servers. User can configure the dial peer to route calls between these servers. Please refer [“How to use the dial rule?”](#) for detail.

### 6.2 Why the settings vanish after reboot?

Please go to Config Manage→Save Config to save your setting always.

### 6.3 How to use the dial rule?

ES-530 provide flexible dial rule, with different dial-rule configure, user can easily implement the following function:

----Replace, delete or add prefix of the dial number.

----Make direct IP to IP call

----Place the call to different servers according the prefix.

You can click “Add” to add a new dial rule. Below is the detail setting of the dial-rule:

**Phone Number:** The Number suit for this dial rule, you can the number as full match or prefix match. Full match means that if the number use dials is the completely same as this number, the call will use this dial-rule. Prefix match means that if prefix of the number that the user dials is the same as the prefix, the call will use this dial-rule, to distinguish from the full match case, you need to add “T” after the prefix number in the phone number setting.

**Call Mode:** support SIP..

**Destination (optional):** call destination, can be IP or domain. Default is 0.0.0.0, in this case the call will be routed to the Public SIP server. If you set the destination to 255.255.255.255, then the call will be routed to the private SIP server. Also you can key other address here to make direct IP calls

**Port (optional):** Configure the port of the destination, default is 5060 in SIP and 1720 for H323

**Alias (optional):**Set up the Alias. We support four Alias as below. Alias need to co-work with the *Del Length*:

- add:xxx, add prefix to the phone number, can set to reduce the dial length.
- all: xxx, replace the phone number with the xxx, can use as speed dial function.
- del, delete the first N numbers. N is set in the *Del Length*
- rep:xxx, replace the first N numbers. N is set in the *Del Length*. For Example: Use wants to place a call 8610-62281493, then you can set the *phone number* in the dial rule as 010T, and set the *Alias* as rep:8610, and set the *Del Length* to 3. Then all calls begin with 010 will be changed to 8610 xxxxxxxx.

**Suffix (optional):**Configure suffix, show no suffix if not set

Instance:

## Dial-Peer

Number	Call Mode	Destination	Port	Alias	Suffix	Del length
2T	sip	255.255.255.255	5060	del	no suffix	1
3T	sip	0.0.0.0	5060	del	no suffix	1
123	sip	0.0.0.0	5060	all:8675583018049	no suffix	0
0T	sip	0.0.0.0	5060	rep:86	no suffix	1
179	sip	192.168.1.179	5060	no alias	no suffix	0

**2T rule:** If the call starts with 2, the first 2 will be deleted, and the rest number will be sent to private SIP server.

**3T rule:** If the call starts with 3, the first 3 will be deleted, and the rest number will be sent to public SIP server.

**123 rule:** Dial 123 and will send 8675583018049 to your server. Used as speed dial function.

**0T rule:** If the call starts with 0, the first 0 will be replaced by 86. Means that if you dial 075583018049 and AG-188 will send 8675583018049 to your server.

**179 rule:** when you dial 179, the call will be sent to 192.168.1.179, suitable for LAN application without setting up a SIP server.

## 6.4 How to use speed dial function?

There are 9 speed dial keys in the AT-320 panel, Usage:

Set speed dial number: press the speed key and enter the speed dial number and then press Menu/OK key to save the setting.

Pick up the handset and press the speed dial key to dial the pre-defined number.

## 6.5 How to configure digital map?

Digital Map is based on some rules to judge when user ends dialing and send the number to the server. ES-530 supports following digital map:

---End With "#": Use # as the end of dialing.

---Fixed Length: When the length of the dialing matches, the call will be sent.

---Timeout: Specify the timeout of the last dial digit. The call will be sent after timeout.

---Prefix + Length: If the Prefix and Length match, the call will be sent.

## 6.6 How to use Call Forward, Call Transfer and 3-way Conference calls?

User may set up the configuration in the *Call Service* page to use these value add services.



Call Service	
<b>Hotline</b>	<input type="text"/>
<b>Call Forward</b>	<input checked="" type="radio"/> Off <input type="radio"/> Busy <input type="radio"/> No Answer <input type="radio"/> Always
	Phone Number <input type="text"/> Addr <input type="text"/> Port <input type="text" value="5060"/>
<input type="checkbox"/> No Disturb	<input type="checkbox"/> Ban Outgoing
<input checked="" type="checkbox"/> Enable Call Transfer	<input checked="" type="checkbox"/> Enable Call Waiting
<input checked="" type="checkbox"/> Enable Three Way Call	<input checked="" type="checkbox"/> Accept Any Call
<input type="checkbox"/> Auto Answer	<input type="checkbox"/> Enable Voice Record
<input type="checkbox"/> User-Defined Voice	<input checked="" type="checkbox"/> Incoming Record Playing
<input type="text" value="20"/> No Answer Time(seconds)	
<input type="button" value="Apply"/>	

➤ Call Forward:

---Forward when busy: select *Busy* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*. If some one calls you when you having a call, the caller will be forwarded to the destination number.

---Forward no answer: Select *No Answer* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*, fill the time in the *No Answer Time*. If some one calls you and no one answer the caller during the No Answer Time, the call will be forward to the destination number.

---Forward Always: Select *Always* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*, then any one call this gateway will be forward to the destination number.

➤ Call Transfer:

Check the *Enable Call Transfer*.

If A is the ES-530 user, and B calls and talking with A through VoIP. A can **press FWD button** to hold the call with B, and then **enter C's number**. B will be transferred to C and can talk with C.

➤ 3-Way Conference Calls

Check Enable Three Way Call

Assume A is the AG-188 user, and B calls and talking with A through VoIP. A can **press FWD button** to hold the call with B, then **enter \*** and then **enter C's number** to talk with C, and then **press FWD button** again to make 3-way conference calls.

## 6.7 How to use the record function?

Call Service

<b>Hotline</b>	<input style="width: 100%;" type="text"/>		
<b>Call Forward</b>	<input checked="" type="radio"/> Off <input type="radio"/> Busy <input type="radio"/> No Answer <input type="radio"/> Always		
	Phone Number <input style="width: 150px;" type="text"/>	Addr <input style="width: 150px;" type="text"/>	Port <input style="width: 50px;" type="text" value="5060"/>
<input type="checkbox"/> No Disturb	<input type="checkbox"/> Ban Outgoing		
<input checked="" type="checkbox"/> Enable Call Transfer	<input checked="" type="checkbox"/> Enable Call Waiting		
<input checked="" type="checkbox"/> Enable Three Way Call	<input checked="" type="checkbox"/> Accept Any Call		
<input type="checkbox"/> Auto Answer	<input type="checkbox"/> Enable Voice Record		
<input type="checkbox"/> User-Defined Voice	<input checked="" type="checkbox"/> Incoming Record Playing		
<input style="width: 30px;" type="text" value="20"/> No Answer Time(seconds)			

ES-530 provides record function. With this function, user may record three VoIP message and one local message.

### Active answering machine:

Select “**Enable Voice Record**” to active answering machine, and config **No Answer Time**. If there is an incoming call and no one answer the call. After timeout, ES-530 will auto answer this call and ask the caller to leave message.

**Incoming Record Playing:** play the message when recording.

**User-Defined Voice:** Use customizes greeting voice for answering machine.

**Notice:** ES-530 supports three message maximum, each message can be 90 seconds. Answering will be deactivated if the message numbers is 3.

### Record local message:

User may use local message to leave message to other local users.

Please refer the **Record** button function as below:

Record Function		
Level1	Level2	Description
Received	New	New message info
	Old	Old message info
	Record	Enable/disable answering machine
	Playing	Enable/disable Incoming Record Playing
Local	Play	Play local message
	Rec	Record local message
User define	Switch	Enable/disable customize greeting message
	Play	Play customize greeting message
	Rec	Record customize greeting message

## **6.8 How to use set the IP type via keypad?**

In the idle mode, user may use the keypad to set the IP type as the below procedure:

Keep pressing the button 1 for changing to static mode.

Keep pressing the button 2 for changing to DHCP mode.

Keep pressing the button 3 for changing to PPPoE mode.