Command line interface in PLANET VIP-100T

This chapter is a command-by-command description for the PLANET VIP-100T CLI administration mode.

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Command Line Interface Configurations

PLANET VIP-100T provides CLI (Command Line Interface) for more detail, powerful machine configurations. In most circumstances, it is not necessary to proceed configurations via telnet session, LCD panel menu, and web configuration in VIP-100T can cover most configurations to meet different applications on your side. VIP-100T Telnet User Interface allows you to specify (and change) a variety of system configuration parameters. It is strongly recommended to consult experienced engineer or related personnel on your ITSP side before entering, modifying or confirming any parameter in CLI mode.

Hint	1. Default username/password for VIP-100T CLI administration: **root**/null <without password>.) 2. Most commands should be inserted with **lower case**. If wrongly key in, machine will prompt, “command not recognized” for warning purpose. 3. Content of description, such as H.323 alias or username configuration, these parameters are allowed to be Capital format. 4. Please use ”**commit**” command for parameter confirmation, and all modifications should be activated via command “**reboot**”

After log into the VIP-100T, the terminal will prompt with ″usr/config$″, this shows you are log into the CLI of the VIP-100T successfully. Operation commands in command line interface (CLI) are introduced in respective session, please press either ″?″ or ″help″ to display related command messages.

1. [help]

Type help or man or ? to display all the command lists. The following figure shows the supported commands of the VIP-100T.

Syntax Description

This command has no arguments or keywords.

Example

```
usr/config$ ?
help          help/man/? [command]
quit          quit/exit/close
reboot         reboot local machine
flash         clean configuration from flash rom
commit         commit flash rom data
ifaddr         internet address manipulation
time          show current time
ping          test that a remote host is reachable
pbook         Phonebook information and configuration
pppoe         PPPoE stack manipulation
sysconf        system information manipulation
h323          H.323 information manipulation
voice         voice information manipulation
tone          Setup of call progress tones
support        Special Voice function support manipulation
bureau         bureau line information manipulation
rom           ROM file update
passwd         Password setting information and configuration
usage: help [command]
```

2. [quit]

Type either quit, exit, or close in CLI will logout VIP-100T Telnet administration session.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

Example

```
usr/config$ exit
Disconnecting...
```

3. [reboot]

This command is used to restart machine to activate new committed parameters. If there is no committed data, reboot command will restart machine only.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

Example

```
usr/config$ reboot
.
Data modified, commit to flash rom?(y/n)y
This may take a few seconds, please wait....
Commit to flash memory ok!.
This may take a few seconds, please wait....
 Commit to flash memory ok!
```

M Caution	If you see "**Data modified, commit to flash rom?**" message after inputting reboot command, this prompt indicates there are data requiring confirmation before rebooting. If you ignore the prompt, type "**n**" to reboot machine without saving data, all the modifications will be lost after rebooting.

4. [flash]

Flash command will erase current running configuration and load factory default parameter and reboot VIP-100T.

Syntax Description

flash –clean (this command only can be applied while logging in as "*root*" privilege.)

Default

This command has no default value.

Example

```
usr/config$ flash
Flash memory information and configuration
Usage:
flash -clean
Note:
    This command will clean the configuration stored in
    the flash and reboot it.
```

M Note	When download or receive firmware upgrade from your service provider, it is required to perform a "***flash -clean***" to activate new configuration in machine. <Machine default IP address: **192.168.0.1**, Web/Telnet logon username: **root**; password: <null>, press <Enter> to log in machine..

5. [commit]

This command is used to save any changes after configuring VIP-100T.

Syntax Description

This command has no arguments or keywords

Default

This command has no default value.

Example

```
usr/config$ commit
usr/config$
This may take a few seconds, please wait....
Commit to flash memory ok!
```

M Note	When download or receive firmware upgrade from your service provider, it is required to perform a "***flash -clean***" to activate new configuration in machine. <Machine default IP address: **192.168.0.1**, Web/Telnet logon username: **root**; password: <null>, press <Enter> to log in machine..

6. [ifaddr]

Command *ifaddr* is used to configure and display TCP/IP related information in VIP-100T.

There are sub parameters in this menu, please insert "*ifaddr*" to display related parameters for configuration.

Example

```
usr/config$ ifaddr
LAN information and configuration
Usage:
ifaddr [-print]|[-dhcp used]|[-sntp mode [server]]
ifaddr [-ip ipaddress] [-mask subnetmask] [-gate defaultgateway]
[-cmcenter cmcenter]
ifaddr [-dns index [dns server address]]
   -print    Display LAN information and configuration.
   -ip       Specify ip phone ip address.
   -mask     Set Internet subnet mask.
   -gate     Specify default gateway ip address
   -dhcp     Set DHCP client service flag (On/Off).
   -sntp     Set SNTP server mode and specify IP address.
   -dns      specify IP address of DNS Server.
   -timezone  Set local timezone.
   -ipsharing Specify usage of an IP sharing device and specify IP
address.
   -cmcenter  Specify management center IP address.
Note:
   Range of ip address setting (0.0.0.0 ~ 255.255.255.255).
   DHCP client setting value (On=1, Off=0). If DHCP set to 'On',
   Obtain a set of Internet configuration from DHCP server assgined.
   SNTP mode (0=no update, 1=specify server IP, 2=broadcast mode).
Example:
   ifaddr -ip 210.59.163.202 -mask 255.255.255.0 -gate 210.59.163.254
   ifaddr -dhcp 1
   ifaddr -sntp 1 210.59.163.254
   ifaddr -ipsharing 1 210.59.163.254
   ifaddr -dns 1 168.95.1.1
   ifaddr -timezone 8
```

a) -ip, -mask, -gate

These parameters are used to setup IP Address, subnet mask and default gateway respectively.

Syntax Description

-ip Specify IP address of VIP-100T.

-mask Set Internet subnet mask.

-gate Specify IP address of default gateway

Default

IP address=192.168.0.1, Mask=255.255.255.0, Gateway=255.255.255.255

b) -dhcp

When DHCP function enables (*ifaddr –dhcp 1*), VIP-100T will automatically search DHCP server after commit and reboot process.

Syntax Description

-dhcp enable/disable DHCP client service.

Default

0 (DHCP client is turned off)

Hint	**After VIP-100T obtaining IP address from DHCP server, you may now check machine TCP/IP status on the LCD panel.**

c) –sntp

SNTP feature in VIP-100T is able to retrieve time information from timeserver on the net. To enable the SNTP feature in machine, please assign the trigger parameter "1", and SNTP IP address in SNTP parameter.

Syntax Description

–sntp 1 xxx.xxx.xxx.xxx

Default

1 (SNTP option turned on, IP= 213.91.2.137)

d) -dns

VIP-100T support domain name resolution, you may configure the DNS server IP address obtained from ISP or your preferred DNS server. After configuring this, you may now connect or register to H.323 gateway/terminal/gatekeeper with easy-to-remember URL address instead of IP address.

Syntax Description

-dns 1 xxx.xxx.xxx.xxx

Default

1 (DNS option turned on, IP= 168.95.1.1)

M **Note**	**1. Please consult your network administrator or ISP for DNS related information to have best performance in domain name resolution.** 2. **If you'd like to use domain name as calling destination, please refer to H.323 and Phone Book sessions for more configuration tips.**

e) –timezone

If the SNTP server is configured, you can setup time zone information in VIP-100T to meet local time display.

Syntax Description

–timezone 8

Default

8 (Time zone is set to GMT+8)

f) –ipsharing

If VIP-100T is working in an IP-sharing (NAT router) environment, you may enable IP sharing function and insert WAN IP address of the device to prevents one-way communication in NAT environment.

Syntax Description

–ipsharing 0/1 WAN side IP address of the IP sharing device

Default

0 (no IP Sharing device)

M Note	**Parameter 0 for disable and 1 for enable IP sharing feature on VIP-100T.**

g) -cmcenter

This function is reserved for future support service. Please disable this feature via entering "x" parameter.

Syntax Description

–cmcenter "IP address of management center"

–cmcenter x to disable this function

Default

255.255.255.255 (management center function is disabled)

7. [time]

Command time is used to display current time information . This function is valid only when SNTP server is configured in VIP-100T's SNTP function.

```
usr/config$ time
Current time is FRI JAN 23 18:08:00 2003
```

G Hint	If time information cannot display properly, please check command: ***ifaddr -sntp*** for configuration tips.

8. [ping]

Command *ping* can be used to verify network connection status

Syntax Description

ping xxx.xxx.xxx.xxx

Pinging results will be displayed on screen to show network status.

Default

This command has no default value.

Example

```
usr/config$ ping 192.168.0.254
PING 192.168.0.254: 56 data bytes
64 bytes from 192.168.0.254: icmp_seq=0. time=5. ms
64 bytes from 192.168.0.254: icmp_seq=1. time=0. ms
64 bytes from 192.168.0.254: icmp_seq=2. time=0. ms
64 bytes from 192.168.0.254: icmp_seq=3. time=0. ms
----192.168.0.254 PING Statistics----
4 packets transmitted, 4 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 0/1/5
```

9. [pbook]

Phonebook in VIP-100T is the phone number database for connection toward other H.323 terminal/gateway. This command is provided for Peer-to-Peer Mode use only. While machine is running in GK mode, dial-string depends on the registration information provided by ITSP or assigned from GK administrator.

Example

```
usr/config$ pbook
Phonebook information and configuration
Usage:
pbook [-print [start_record] [end_record]]
pbook [-add [ip ipaddress] [name Alias] [e164 phonenumber]]
pbook [-search [ip ipaddress] [name Alias] [e164 phonenumber]]
pbook [-insert [index] [ip ipaddress] [name Alias] [e164 phonenumber]]
pbook [-delete index]
pbook [-modify [index] [ip ipaddress] [name Alias] [e164 phonenumber]]
   -print    Display phonebook data.
   -add      Add an record to phonebook.
   -search   Search an record in phonebook.
   -delete   Delete an record from phonebook.
   -insert   Insert an record to phonebook in specified position.
   -modify   Modify an exist record.
   pbook -add name Test ip 210.59.163.202 e164 1001
   pbook -insert 3 name Test ip 210.59.163.202 e164 1001
   pbook -delete 3
   pbook -search ip 192.168.4.99
   pbook -modify 3 name Test ip 210.59.163.202 e164 1001

Note:
   If parameter 'end_record' is omited, only record 'start_record' will
be display.
   If both parameters 'end_record' and 'start_record' are omited, all
records will be display.
   Range of ip address setting (0.0.0.0 ~ 255.255.255.255).
   Range of index setting value (1~100),
Example:
   pbook -print 1 10
   pbook -print 1
   pbook -print
   pbook -add name Test ip 192.168.0.99 e164 1001
   pbook -insert 3 name Test ip 192.168.0.199 e164 1001
   pbook -delete 3
   pbook -search ip 192.168.4.99
   pbook -modify 3 name Test ip 192.168.0.100 e164 1001
```

a) –print

Parameter *print* can be used to display phone book database information. You can display all data in phone book by adding –print parameter. Furthermore, you like to display a section of data, indication parameter 'start_record' and 'end_record' can be used (pbook –print "start index #" "end index #"). If parameter 'end_record' is omitted, only record 'start_record' will be display (pbook –print "start index #").

Syntax Description

-print [start index #] [end index #] Display phonebook data.

Default

This command has no default value.

Example

```
usr/config$ pbook -print
index   Name              IP                E164
=========================================================================
1      test1               210.66.155.90        5555
2      test2               vip.planet.com.tw    0
-------------------------------------------------------------------
usr/config$ pbook -print 1 1
index   Name              IP                E164
=========================================================================
1      test1               210.66.155.90        5555
-------------------------------------------------------------------
usr/config$ pbook -print 1 2
index   Name              IP                E164
=========================================================================
1      test1               210.66.155.90         5555
2      test2               vip.planet.com.tw    0
-------------------------------------------------------------------
```

b) -add

Parameter *add* is used to create a new entry in phone book table by give a name and e164 number for the Gateway / Terminal IP address.

Syntax Description

–add name "X" ip "xxx.xxx.xxx.xxx" e164 "X")

Default

This command has no default value.

Example

```
usr/config$ pbook -add name test3 ip 210.66.155.96 e164 6532
usr/config$ pbook -add name test4 ip planetvip.dyndns.org e164 3698
usr/config$
This may take a few seconds, please wait....
Commit to flash memory ok!
```

Hint	Either IP or URL address can be used for calling destination. If you'd like to use URL as calling destination, please be sure to configure the DNS server in ***ifaddr*** section

c) -search

Parameter *search* provides user search capability to search any record such as IP address, name or e164 address in the phone book database.

Syntax Description

This command has no arguments or keywords

Default

This command has no default value.

d) -delete

Parameter *delete* can be used to delete a telephone entry in VIP-100T phone book database.

Syntax Description

–delete index number

Default

This command has no default value.

e) –insert

Parameter *insert* allows user to enter an entry in specified index number of phone book.

Syntax Description

-insert Insert an entry in specified position of phone book database.

Default

This command has no default value.

f) –modify

Parameter *modify* can be used to modify entries in phone book database that has addressed to index number. The name, IP address and e164 number should be modified together in one modify command.

Syntax Description

–modify <index number> name X ip xxx.xxx.xxx.xxx″ e164 X

Default

This command has no default value.

G Hint	When dialing, please press ” # ” after dialing E.164 number to send out telephone number to destination.

10.[pppoe]

VIP-100T equipped with PPPoE client, this makes VIP-100T is able to establish Internet connection without assistance.

Example

```
usr/config$ pppoe
PPPoE device information and configuration
Usage:
pppoe [-print]|[-open]|[-close]
pppoe [-dev on/off][-id username][-pwd password]
   -print    Display PPPoE device information.
   -dev      Enable(=1) or Disable(=0) device.
   -open     Open PPPoE connection.
   -close    Disconnect PPPoE connection.
   -id       Connection user name.
   -pwd      Connection password.
   -reboot   Reboot after remote host disconnection.
```

a) -print

Parameter *print* can be used to display overall PPPoE information and configurations. When PPPoE connection established, related information (IP, gateway ….etc.) can be seen with this command.

Syntax Description

-print Display PPPoE device information.

Default

This command has no default value.

Example

```
usr/config$ pppoe -print
PPPoE adapter information
Device         : Disable
Status         : Not initialized
User name      : pppoe
Password       : *****
```

b) –dev

Parameter *–dev* can be used to enable or disable PPPoE function.

Syntax Description

-dev Enable(=1) or Disable(=0) PPPoE function in VIP-100T

Default

0 PPPoE function in VIP-100T is turned off.

c) –open

While VIP-100T is not in PPPoE connection state, you may use parameter *–open* to initiate a PPPoE connection.

Syntax Description

-open Initiate a PPPoE connection.

Default

This command has no default value.

d) –close

While VIP-100T is in PPPoE connection state, you may use parameter *–close* to disconnect a PPPoE connection.

Syntax Description

-close Disconnect current PPPoE connection.

Default

This command has no default value.

e) –id

This parameter can be used to configure PPPoE connection user name.

Syntax Description

-id User name for PPPoE connection.

Default

pppoe

f) –pwd

This parameter can be used to configure PPPoE connection password.

Syntax Description

-pwd Password for PPPoE connection.

Default

pppoe.

Hint	If difficulty is met during PPPoE connection setup, please verify if the username/password are correctly inserted, and contact your ISP for proper information.

g) –reboot

If user enable this function, after PPPoE being disconnected unexpectedly, VIP-100T will automatically reboot to re-establish PPPoE conhnection. After reboot, if VIP-100T still can't get contact with server, VIP-100T will keep trying to connect one more time. On the other hand, if this function is disabled, VIP-100T won't reboot and keep trying to connect.

Syntax Description

-reboot Reboot VIP-100T while PPPoE session disconnected unexpectedly. Enable(=1) or Disable(=0)

Default

1 (Reboot machine while there is unexpected PPPoE disconnection)

11.[sysconf] command

This command displays the system information and configuration.

```
System information and configuration
Usage:
sysconf [-plan digits] [-callalive flag] [-h450 flag] [-keypad type]
[-idto time] [-eod type]
sysconf -print
   -print    Display system overall information and configuration.
   -plan     Number of digits for dial plan. ( No or positive number 1
~ 24. )
   -callalive Enable or disable auto-disconnection after 10 seconds not
receiving packets from remote party.
   -keypad   Select DTMF type. ( 0:INBAND, 1:H245ALPHANUMARIC,
             2:H245SIGNALTYPE, 3:Q931USERINFO. )
   -idto     The duration of two pressed digits in dial mode
   -eod      Digit type of end of dialing. ( 0:No end of dialing,
             1:[OK] button, 2:[#} button, 3:[*] button. )
   -h450     Enable or disable H.450 related features.
Example:
   sysconf -plan 4 -callalive 0 -h450 1 -keypad 2 -idto 5 -eod 0
```

a) –print

Parameter *-print* can display system overall information and configuration.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

Example

```
usr/config$ sysconf -print
System information
   DialPlan number of digits: 0
   CallAlive auto-disconnection: Disabled
   keypad DTMF type: H245SIGNALTYPE
   H.450 features: Enabled
   Inter-digit time out: 5
   Digit type of end of dialing: [ # ] button

usr/config$
```

b) –plan

Parameter *–plan* is used to setup dialstring length. While the number (E.164 number in phone book) you dialed is 7 digits, this parameter should be configured as 7 or 0.

Syntax Description

-plan dial string length (number 1 ~ 24 to limit the dialed digits, 0 for unlimited, but Max. dialed digits is 24.)

Default

0 (not limited, Max. allowed dialed digits count is 24.)

G Hint	1. If this parameter is set to 0, this will disable length checking in phone book (Max. dialed digits is 24), and dialing string between 1-24 digits can be set. 2. By default settings, symbol ”#” is used to send out the dial-string. If you don’t wish to wait the dialed digit interval timeout, you may press “#” key to send out numbers to desired destinations.

c) –callalive

VIP-100T is able to check if there are network activities during calling process. Parameter *–callalive* can enable or disable auto-disconnect operation after 10 seconds not receiving packets from remote calling party

Syntax Description

-callalive Enable or disable auto-disconnection after 10 seconds not receiving packets from remote party. 0 for disable and 1 for enable

Default

0

d) –keypad

Parameter *–keypad* is used to setup DTMF transmission method. You may select DTMF type in VIP-100T for DTMF receiving and transmitting activities.

Syntax Description

–keypad 0/1/2/3 (0 for inband ,1 for H.245 alphanumeric, 2 for H.245 signal type, 3 for Q.931 user info, 4 for RFC2833.)

Default

2 (H.245 signal type)

Note	It is not suggested to change this parameter without assistance of your VoIP or PBX system administrator.

e) –idto

Parameter *–idto* is used to setup the interval (in second) of two pressed digits, iff there is no action in this duration, VIP-100T will dial out the pressed numbers.

Syntax Description

-idto Interval between dial string Digits.

Default

5 seconds

f) –eod

Terminal digit selection, once this specified digit is pressed on the keypad, VIP-100T will send out the dialed digits.

Syntax Description

–eod 0/1/2/3 (0 for no end of dial key , 1 for "OK" button , 2 for "#" button , 3 for "＊" button)

Default

#

g) -h450

Parameter *–h450* can be used to enable or disable the H.450 features supported in VIP-100T. H.450 service supported: *call transfer*, *call on hold* and *call forward*.

Syntax Description

-h450 Enable or disable H.450 related features.

Default

1 (H.450 service is turned on)

12. [h323]

***h323* command is used to display or configure H.323 parameters in VIP-100T, these parameters are designed to meet most calling environment. It is strongly recommended not to modify these parameters on your own. If you met difficulty to establish communication toward destination call party, please consult ITSP engineering staff, experienced personnel or local distributor support staff for proper configuration. There are sub parameters in VIP H.323 configuration menu, which will be illustrated in following sections.**

```
usr/config$ h323
H.323 stack information and configuration
Usage:
h323 [-mode gkmode]
h323 [-gk ipaddress] [-algk ipaddress] [-gkdis used] [-e164 number]
[-e164-x number]
    [-alias h323id] [-tokenpwd password]
    [-rtp port] [-ttl time] [-gkfind port] [-ras port]
    [-range [start num1] [end num2]] [-respto t1] [-connto t2] [-dfgw IP]
h323 -print
   -print    Display H.323 stack information and configuration.
   -mode     Configure as Gatekeeper mode or Non-GateKeeper mode.
   -gk       Gatekeeper ip address. (0.0.0.0 ~ 255.255.255.255)
   -dfgw     Default Gateway IP Address. (0.0.0.0 ~ 255.255.255.255)
   -algk     Second Gatekeeper ip address. (0.0.0.0 ~ 255.255.255.255)
   -gkname   Gatekeeper ID
   -e164     IP side registered number.
   -e164-x   IP side registered number.(x:1~9)
   -alias    IP side registered H323 ID.
   -tokenpwd  RRQ/ARQ authentication token password.
   -gkdis    Gatekeeper auto discovery (multicast, On=1, Off=0).
   -rtp      RTP port number (1024~65532).
   -ttl      RAS TTL time (0~3600 second).
   -gkfind   Gatekeeper finding port (1024~65535).
   -ras      Gatekeeper RAS port (1024~65535).
   -range    Dynamically allocated port range (1024~65535).
   -respto   Max waiting time for 1st response to a new call (1~200).
   -connto   Max waiting time for call establishment after receiving 1st
             response of a new call (1~20000).
Note:
Options -gk -e164 -alias -gkdis -ttl -gkfind -ras are ignored when
   RAS mode is configured as Non-GK mode.
Example:
   h323 -gk 210.59.163.171 -e164 101 -alias vip-100t
   h323 -mode 1
```

a) –print

Parameter *–print* is used to display H.323 stack information and configuration.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

b) –mode

VIP-100T is capable of running in Peer-to-Peer or GateKeeper mode. Machine default running mode is Peer-to-Peer mode.

Syntax Description

–mode 0/1 (0 for GateKeeper mode ,1 for Peer-to-Peer mode)

Default

1 (Peer-to-Peer mode)

c) –gk

This parameter is used to configure primary GateKeeper IP address

Syntax Description

–gk IP address or URL of destination Gatekeeper

Default

Null (This command has no default value.)

Note	1. In the GK IP field, URL can be inserted as well. Please note: Domain Name Server must be configured in ***-ifaddr*** configuration menu, so that the URL can be functional here. 2. If GK IP address is set to ***255.255.255.255*****;** VIP-100T will be set to run **Gatekeeper Auto-discovery** mode. It is required to configure parameters ***–gkname*** **and** ***–gkdis*** to complete the GK Auto-discovery configuration.

d) –dfgw

Parameter *–dfgw* to configure IP address of default H.323 communication gateway, this option is same as the gateway settings in advanced calling option of Microsoft NetMeeting.

i) To complete the calls, both calling and called endpoints must be running in peer-to-peer mode.

ii) If the called party equips FXO interface connected with PBX or PSTN line, to establish the communications, please add sysconf –2nddial 0 parameter to make this one-time dialing working.

iii) In this mode, if you like to dial remote PSTN number via default gateway configuration, VIP-100T will dial to default gateway first, then the remote gateway will forward this number to PSTN line, and connect the call.

iv) If called party equips with FXS interface, you may directly dial an existing telephone number on the remote gateway to establish the voice communication.

Syntax Description

-dfgw Destination H.323 Gateway IP Address.

Default

x (no default destination H.323 gateway)

e) –algk

This parameter is used to configure secondary Gatekeeper IP address or URL address. If VIP-100T tries to register to primary Gatekeeper for 10 times but failed, it will try to register to secondary (alternative) Gatekeeper configured in this option.

Syntax Description

-algk IP address of Secondary Gatekeeper.

Default

Null (This command has no default value.)

f) –gkname

Parameter *–gkname* is used to configure the Gatekeeper name/ID for Gatekeeper auto-discovery operations. When VIP-100T send out Gatekeeper discovery message; this ID will be encapsulated to search matched Gatekeeper to register with.

Syntax Description

-gkname Destination Gatekeeper ID

Default

Null (This command has no default value.)

g) –e164

Parameter *–e164* is used to identify one number for VIP-100T to register with the GateKeeper

Syntax Description

-e164 E.164 alias (registered telephone number) toward destination Gatekeeper.

Default

1001

h) –e164-x

You may assign up to 10 E.164 numbers (Registered telephone numbers) in VIP-100T phone book database. For example, 10 users share the same VIP-100T, they can assign phone numbers as 100, 200, 300…. (for example, h323 –e164 100 –e164-1 200 –e164-2 300….) User can disable one number and the number after this one. Ex. from set 1-5 is configured, if user set the third number as "x", from third to fifth number will be disabled at the mean time. (ex. h323 –e164-2 x)

Syntax Description

-e164-x Specify the E.164 alias (registered telephone number) toward destination Gatekeeper in VIP-100T phone book database.

Default

This command has no default value.

G Note	E.164 number filed also can be used in Peer-to-Peer mode as the destination number.

i) –alias

Parameter *–alias* is used to identify H.323 ID for VIP-100T to register with Gatekeeper. Default alias is related to MAC address of VIP-100T, so each VIP-100T has different alias, which can register with GK without conflict.

Syntax Description

-alias Registered H323 ID toward destination Gatekeeper.

Default

VIP-100T+(last 6 digits of machine MAC address)

G Note	If there is H.323 ID (alias) authentication on the destination Gatekeeper, please obtain proper information from related personnel, and carefully insert data in this field.

j) –tokenpwd

To co work in a H.235 security environment, VIP-100T is implemented the capability of sending RRQ/ARQ authentication token password to Gatekeeper for authentication purpose.

Syntax Description

-tokenpwd RRQ/ARQ authentication token password while registering toward Gatekeeper. Command: h323 –tokenpwd x can be used to disable this function

(1) LCD menu password: User can enter LCD system configuration by key in this password and default value is lowercase "x." (press TRANSFER to switch lowercase and uppercase).

(2) H.235 security: To set RRQ/ARQ authentication token password. If VIP-100T wants to register to a GateKeeper, which implement H.235 security token feature, VIP-100T has to set a RRQ/ARQ authentication token password, which is provided by GateKeeper manager. VIP-100T can't work normally with this GateKeeper unless Token Password is set.

Default

x

k) –gkdis

Parameter *–gkdis* can be used to enable or disable auto discovery function in VIP-100T. If this function is enabled and IP address of Gatekeeper is set as 255.255.255.255, VIP-100T will multicast to search a Gatekeeper on network with Gatekeeper ID/name configured with command *h323 -gkname*; if IP address of Gatekeeper is set, before VIP-100T register to the assigned Gatekeeper, it will send out GRQ (Gatekeeper Request) message with configured Gatekeeper name to Gatekeeper first.

Syntax Description

-gkdis Gatekeeper auto discovery (On=1, Off=0).

Default

0 (Gatekeeper auto-discovery is turned off.)

l) –rtp

This parameter is used to assign RTP port number for voice packet transmission, definable port range: 1024-65535.

Syntax Description

-rtp RTP port number (1024~65532).

Default

16384

m) –ttl

This parameter is used to set RAS TTL (time-to-live) time while machine performs registration toward Gatekeeper. Definable time range: 0-3600 second(s).

Syntax Description

-ttl RAS TTL time (0~3600 second).

Default

60 seconds.

n) –gkfind

This parameter is used to assign GateKeeper finding port number, definable port range: 1024-65535.

Syntax Description

-gkfind Port assignment of Gatekeeper finding port (1024~65535).

Default

1718

o) –ras

This parameter is used to assign Gatekeeper RAS port, definable port range: 1024-65535. This parameter should be adjusted to match the destination Gatekeeper configuration.

Syntax Description

-ras Destination Gatekeeper RAS port (1024~65535).

Default

1719

p) –range

This parameter is used to assign dynamically allocated port range, definable port range: 1024-65535.

Syntax Description

-range Dynamically allocated port range (1024~65535) in VIP-100T.

Default

1024-65535

q) –respto

This parameter is used to setup Max. waiting time for first response from detination call party during call setup process. If this value expired, you will hear busy tone from the handset or speaker phone. Range: 1-200 seconds.

Syntax Description

-respto Maximum waiting time for 1st response to a new call (1~200).

Default

5 seconds

r) –connto

This parameter is used to setup Max. waiting time for call establishment after receiving first response during call setup process, definable time range: 1-20000 seconds.

Syntax Description

-connto Max waiting time for call establishment after receiving 1st response during call setup (1~20000).

Default

200 seconds

G Note	1. Parameters in this H.323 configuration menu are not suggested to change without assistance of ITSP or experienced personnel, improper configuration will case communications fail or malfunction in machine. 2. In Peer-to-Peer mode, ***h323 –print*** will only display information on e164, alias, mode, RTP port, and allocated port range fields. 3. In Peer-to-Peer mode, please dial "#" after press IP address (ex.10.1.1.1 please dial 10*1*1*1#) or E.164 number in Phone book to connect to destination call party.

13. [voice]

***voice* command is associated with the voice codec setting information. These parameters are designed to meet most calling environment. It is strongly recommended not to modify these parameters on your own. If you met difficulty to establish communication toward destination call party, please consult ITSP engineering staff, experienced personnel or local distributor support staff for proper configuration.**

```
Voice codec setting information and configuration
Usage:
voice [-send [G723 ms] [G711A ms] [G711U ms] [G729A ms] [G729 ms] ]
     [-volume [voice level] [input level] [dtmf level]]
     [-nscng G723 used] [-echo used] [-mindelay/maxdelay used]
voice -print
voice -priority [G723] [G711A] [G711U] [G729A] [G729]
   -print    Display voice codec information and configuration.
   -send     Specify sending packet size.
             G.723  (30/60 ms)
             G.711A (20/40/60 ms)
             G.711U (20/40/60 ms)
             G.729A (20/40/60 ms)
             G.729  (20/40/60 ms)
   -priority  Priority preference of installed codecs.
             G.723
             G.711A
             G.711U
             G.729A
             G.729
   -volume   Specify the following levels:
             voice volume (0~40, default: 30),
             input gain (0~63, default: 32),
             dtmf  volume (0~31, default: 27),
   -nscng    Silence suppression and CNG. (G.723.1 only, On=1, Off=0).
   -echo     Setting of echo canceller. (On=1, Off=0, per port basis).
   -mindelay  Setting of jitter buffer min delay. (0~150, default: 100).
   -maxdelay  Setting of jitter buffer max delay. (0~150, default: 150).
Example:
   voice -send g723 60 g711a 60 g711u 60 g729a 60 g729 60
   voice -volume voice 20 input 32 dtmf 27
   voice -echo 1 1
usr/config$
```

a) –print

Parameter *–print* is used to display voice codec information and configuration.

Voice codec supports in VIP-100T are: G.723.1, G.729a, G.729, G.711u, G.711A.

Syntax Description

-print Display voice codec information and configuration.

Default

This command has no default value.

Example

```
usr/config$ voice -print
Voice codec setting relate information
   Sending packet size  :
          G.723.1     : 30 ms
          G.729A      : 20 ms
          G.729       : 20 ms
          G.711U      : 20 ms
          G.711A      : 20 ms
   Priority order codec :
          g7231 g729a g729 g711u g711a
   Volume levels       :
          voice volume : 30
          input gain   : 26
           dtmf volume : 23
Silence suppression & CNG:
          G.723.1     : Off
   Echo canceller      : On
 JitterBuffer Min Delay  : 30
 JitterBuffer Max Delay  : 90
```

b) -send

Parameter –*send* can be used to adjust the transmission voice packet size toward destination call party. Three packet size can be configured: 20 ms, 40 ms or 60 ms. (Note: packet size in G.723 only can be configured as 30 and 60 ms.)

Syntax Description

-send **Specify transmission packet size toward destination call party.**

Default

G.723.1: 30 ms; G.729A: 20 ms; G.729: 20 ms; G.711U: 20 ms; G.711A: 20 ms

Example

```
usr/config$ voice -send g723 60 g729a 60 g729 60 g711u 60 g711a 60
usr/config$ commit
usr/config$
This may take a few seconds, please wait....

Commit to flash memory ok!
```

c) -priority

Parameter *–priority* can be used to setup supported voice codec or priority in voice codecs during capability exchange in H.323 call setup process. You may set from 1 to 5 codecs to meet real world applications. For instance, voice –priority g723 means VIP-100T supports single voice codec (G.723.1) only. Or voice –priority g723 711a g711u g729a g729 means VIP-100T supports five codecs, and voice codec used in call capability exchange will be in this order: g723 711a g711u g729a g729.

Syntax Description

-priority Priority preference of installed codecs.

Default

Supported voice codec and priority order in VIP-100T: G.7231 G.729a G.729 G.711u G.711a.

d) –volume

Parameter *-volume* can be used to adjust voice volume of H.323 calls, signal input gain level, and DTMF volume while communicating with destination call party.

Syntax Description

-volume Specify the voice volume level, input gain, DTMF volume in VIP-100T.

Default

voice volume level: 30, input gain: 30, DTMF volume: 27

e) –nscng

Parameter *–nscng* is used to enable or disable sound compression and comfort noise generation in VIP-100T. This parameter is only valid for codec G.723.1. (0 for off,1 for on)

Syntax Description

-nscng VIP-100t silence suppression and CNG setting

Default

0 (silence suppression is turned off)

f) –echo

Enable -*echo* canceller to eliminate echo brought by environmental factors, default value is on.

Syntax Description

-echo Setting of echo canceller. (On=1, Off=0)

Default

1 (echo canceller is turned on)

g) –mindelay

Parameter –mindelay is used to setup minimum delay of jitter buffer in VIP-100T, definable range: 0~150 ms

Syntax Description

-mindelay Setting minimum delay of jitter buffer

Default

30 ms

h) –maxdealy

Parameter –maxdelay is used to setup Maximum delay of jitter buffer in VIP-100T, definable range: 0~150 ms

Syntax Description

-maxdelay Setting Maximum delay of jitter buffer.

Default

90 ms

M Caution	Parameters in voice configuration menu are for advanced user or system administrator only, improper settings in this menu will cause communication fail, and machine malfunctioned or reduced voice quality. Please contact support staff of your local distributor before changing any parameter in this menu.

15. [tone]

Busy tone, reorder tone, ring tone and dial tone are adjustable in VIP-100T.

In most circumstances, there is no need to change tone setting. Currently, only ring tone and dial tone is functional in VIP-100T, busy tone and reorder tone are reserved for future use.

```
usr/config$ tone
Setup of call progress tones
Usage:
tone -toneX LowFreq HighFreq LowFreqLevel HighFreqLevel TOn1 TOff1
TOn2 TOff2
tone -print
Note:
   toneX has the following possibility:
   busy1 busy2 reorder1 reorder2 ringtone1 ringtone2 dialtone
Example:
   tone -busy1 400 0 8 0 50 50 0 0
   tone -dialtone 400 0 19 0 25 25 0 0
```

Syntax Description

tone -toneX LowFreq HighFreq LowFreqLevel HighFreqLevel TOn1 TOff1 TOn2 TOff2

You need to key in 8 sets of number to finish this configuration. If it is single-frequency tone, please set high frequency and related items as 0. Furthermore, unit of on/off time is 1/100 second, and it is suggested to keep this as default value.

Default

Busytone1:	**LowFreq**	**400**
	HighFreq	**0**
	LowFreqLevel	**8**
	HighFreqLevel	**8**
	TOn1	**50**
	TOff1	**50**
	TOn2	**0**
	TOff2	**0**
Dialtone:	**LowFreq**	**440**
	HighFreq	**350**
	LowFreqLevel	**8**
	HighFreqLevel	**8**
	TOn1	**50**
	TOff1	**0**
	TOn2	**50**
	TOff2	**0**

Example

```
usr/config$ tone -busy1 400 0 8 0 50 50 0 0
tone -dialtone 400 0 19 0 25 25 0 0
usr/config$ commit
usr/config$
This may take a few seconds, please wait....

Commit to flash memory ok!
```

16. [support]

Parameters in support configuration menu are used to adjust H.323 call setup related parameters. By default settings, VIP-100T is able to work well in most operation environment. If you met difficulties during call setup, please contact ITSP related personnel or your local distributor support staff for proper configurations.

```
usr/config$ support
Special Voice function support manipulation
Usage:
support [-print] [-fstart enable] [-tunnel enable] [-h245fs enable]
support -print
   -print    show current configuration
   -fstart   Fast start enabled/disabled.
   -tunnel   H245 Tunneling enabled/disabled.
   -h245fs   H245 seperate channel after faststart.
Example:
   support  -fstart 1
   support  -tunnel 0
   support  -h245fs 1
```

a) -print

Parameter *–print* is used to display current SUPPORT values configurations.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

b) –fstart

Parameter *–fstart* is used to enable or disable H.323 fast start mode. If you′d

like to enable H.323 fast start mode in VIP-100T, please make sure the destination call party supports fast start mode as well.

Syntax Description

-fstart Enabled or disabled Fast start mode in VIP-100T, o to disable, 1 to enable this feature..

Default

0 H.323 fast start mode is disabled.

c) –tunnel

Parameter *–tunnel* is used to enable or disable H.245 tunneling function.

Syntax Description

-tunnel Enabled or disabled H.245 Tunneling, 0 for disable and 1 for enable .

Default

0 H.245 tunnel mode is disabled.

d) -h245fs

Parameter *–h245fs* is used to setup if VIP-100T opens H.245 separate channel after H.323 fast start mode. (support –h245fs 0 / 1 , 0 for open and 1 for not.) Please make sure the destination call party supports this feature before applying this parameter.

Syntax Description

-h245fs H.245 separate channel after H.323 faststart mode.

Default

0 H.245 separate channel mode is disabled.

Note	When H.323 fast start mode is enabled, if you wish to send DTMF message after connection, VIP-100T will send out Q.931 message to destination call party. You'll need to specify the Keypad type as "Q.931" in System configuration menu.

17. [bureau]

This parameter is used while other call party supports H.450 Hold feature. If this feature is enabled, other call party will hear hole tone when "HOLD" button on VIP-100T keypad is pressed.

```
usr/config$ bureau
Bureau line setting information and configuration
Usage:
bureau [-hold used]
bureau -print
   -print    Display Bureau line information and configuration.
   -hold     Specify the hold tone generation (using PCM file).
(On/Off)
            Setting value (On=1, Off=0).
Example:
   bureau -hold 1
```

a) -print

Parameter *–print* can be used to display bureau setting information and configuration.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

b) -hold

If other terminals support H.450 hold function, and execute hold function when connecting with VIP-100T, user will hear hold tone from VIP-100T. (0 for off,1 for on)

Syntax Description

-hold **Enable or disable H.450 service hold tone generation, 0 for disable and 1 for enable.**

Default

1 H.450 hold feature is turned on.

18.[rom]

Command *rom* is used to perform firmware upgrade in VIP-100T. While you receive or download up-to-date firmware file from local distributor, you may refer to the following commands to upgrade your VIP-100T to obtain latest add-on features or maintenance service.

***rom* command related parameters can be shown below:**

a) -print

Parameter –print is used to displayVIP-100T firmware version information. Please be sure to attach this information while sending support inquiry to our distributor support staff.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.

b) -app,-boot, -dsptest, -dspcore, -dspapp, -rbpcm and –htpcm

To complete firmware upgrade, you'll need to logon VIP-100T as *root* priviledge. There are several types of firmware image files in VIP-100T: main boot code, main application image, DSP testing image, DSP kernel image, DSP application image, Ring Back Tone PCM file and Hold Tone. In most circumstances, upgrade the main application image can retrieve the latest features or maintenance, no other file required. If there are additional demands for other kinds of image file, we'll include in the firmware release for customer's most convenience.

To perform firmware upgrade, you'll need to setup a TFTP server or FTP server to complete upgrade process. Please consult experienced personnel to prepare related service.

Syntax Description

-app Update main application code

Default

This command has no default value.

c) -boot2m

Parameter *–boot2m* is used to upgrade 2mb firmware file, which includes all firmware image files mentioned in section b)

Syntax Description

-boot2m Update 2M firmware file.

Default

This command has no default value.

d) -s

Parameter *–s* is used to specify the IP address of the destination TFTP/FTP server, which contains the firmware file for upgrade. It is required to prepare a TFTP/FTP server before performing firmware upgrade.

Syntax Description

-s IP address of TFTP/FTP server

Default

192.168.0.2 (it is necessary to change this parameter to reflect TCP/IP configurations on your side.)

e) -f

Parameter *–f* is used to specify firmware file name prepared for upgrading on the destination TFTP/FTP server.

Syntax Description

-f Specify firmware file name on the destination TFTP/FTP server.

Default

This command has no default value

f) –server

Parameter *–server* is used to specify TFTP/FTP server IP address, which will be stored in flash memory for the convenience of future firmware upgrade. This feature also can be configured on LCD configuration menu *-firmware upgrade*, *-Set file Server IP*.

Syntax Description

-server Specify TFTP/FTP server IP address, which will be stored in machine.

Default

This command has no default value

g) –method

Parameter *–method* is used to specify download method to be TFTP or FTP.

Syntax Description

-method Specify firmware upgrade mode via TFTP or FTP session, 0 for TFTP.1 for FTP

Default

1 Firmware upgrade will be performed via TFTP method.

h) –ftp

Specify user name and password for FTP firmware upgrade method

For example: User prepares to upgrade the latest app rom file –vip-100t.030213r1, the TFTP server is 192.168.0.2.

rom –app –s 192.168.0.2 –f vip-100t.030213r1 (If the destination server is specified via parameter *–server*, you may insert command: *rom –app –f vip-100t.030213r1* to complete firmware upgrade.).

Syntax Description

-ftp specify username and password for FTP

Default

This command has no default value

19.[passwd]

For security protection, user has to input the password before entering *application user/config mode*. Two configurations of login name/password are supported by VIP-100T.

```
usr/config$ passwd
Password setting information and configuration
Usage:
passwd -set Loginname Password
passwd -clean
Note:
   1. Loginname can only be 'root' or 'administrator'.
   2. Only root user has authority to set root password.
   3. passwd -clean will clear all passwd stored in flash,
      please use it with care. (root user only)
Example:
   passwd -set root vip100t
```

a) –set

Parameter *-set* is used to configure password for "root" or "administrator" users. Difference between root and administrator users in VIP-100T is root user has the privilege of performing firmware upgrade.

Syntax Description

-set login name password, login name should be *root* or *administrator* only.

Default

Null no password

Example

```
usr/config$ passwd -set administrator 123
Setting
login: administrator
Password: admin
OK
usr/config$ passwd -set root 321
Setting
login: root
Password: root
OK
```

b) –clean

Parameter *-clean* can be used to erase the existing password stored in machine. To perfor this command, you need to logon as *root* user to have sufficient privilege to execute this command. After password erased, you may logon VIP-100T via username/password: *root*/ null<without password> or *administrator*/ null<without password>.

Syntax Description

This command has no arguments or keywords.

Default

This command has no default value.