VigorAccess IVD

CLI Reference Manual

Version: 1.2

Date: 2007/05/31

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Target Readers

This guide is intended for those responsible for hardware unpacking and installing for IVD.

Contents

About This Guide

Introduction

This document is designed to assist users in using one of the series of high performance IVD. It provides a product overview and hardware architecture descriptions, installation procedures and product features. The command line interface description is also given.

1   Introduction

Welcome to the IVD CLI Reference Manual. The commands and parameters of the Command Line Interface (CLI) to the IVD communication processor are documented in this manual. The CLI enables an administrative user to configure and maintain IVD interfaces, IVD-managed resources and end-customer communication services.

1.1 Related Documents

1.2 Structure of a CLI Command

CLI commands conform to the following structure .

<Action> <value1>..<valueN>

Consider the CLI command given below:

Figure 1-1:
<Action>. This is the first keyword of a CLI command. It indicates the type of operation to be performed. "create" is an example of this keyword. However, if no action is specified it will mean ìmodifyî. For example, ìmodify bridge port intf portid portid status enableì and ìbridge port intf portid portid status enable ì mean the same.

<value1> <valueN>. These are <value> pairs and can vary from 0 to N. They indicate the parameter values passed to a CLI command.

2

IVD Slave DSL Commands

2.1 DSL Command List

2.1.1 How to Monitor DSL Status

Users can use the following command to check the status of DSL. The commands are listed as below:

$get adsl atuc physical ifname dsl-*   (for downstream)

$get adsl atur physical ifname dsl-*   (for upstream)

(*: 0 ~ 23)

2.1.2 How to Enable/Disable a DSL Port

Commands are shown as below:

$modify adsl line intf ifname dsl-* enable

$modify adsl line intf ifname dsl-* disable

(*: 0 ~ 23)

2.1.3 How to Read DSL Training Rate

Commands are shown as below:

$get adsl atuc channel ifname dsli-*   (for downstream/interleave channel)

$get adsl atur channel ifname dslf-*   (for upstream/fast channel)

$get adsl atuc channel ifname dsli-*   (for downstream/interleave channel)

$get adsl atur channel ifname dslf-*   (for upstream/fast channel)

(*: 0 ~ 23)

2.1.4 How to Change ADSL Line Profile

Commands are shown as below:
$modify adsl line intf ifname dsl-* disable
$modify adsl line profile ifname dsl-* ?
$modify adsl line intf ifname dsl-* enable
(*: 0 ~ 23)

2.1.5 How to Change ADSL Line Rate

Commands are shown as below:
$modify adsl line intf ifname dsl-* disable
$modify adsl line profile ifname dsl-* atucintlmaxtxrate 0x7e0000
$modify adsl line intf ifname dsl-* enable
(*: 0 ~ 23)

2.1.6 How to Change ADSL to Fast Channel/Rate

Commands are shown as below:
$modify adsl line intf ifname dsl-* disable
$modify adsl line profile ifname dsl-* type fastOnly
        atucfastmaxtxrate 0x7e0000
$modify adsl line intf ifname dsl-* enable
(*: 0 ~ 23)

2.1.7 How to Set ADSL Alarm Profile

Commands are shown as below:
$modify adsl line intf ifname dsl-* disable
$modify adsl alarm profile ifname dsl-* ?
$modify adsl line intf ifname dsl-* enable
(*: 0 ~ 23)

2.1.8 How to Change VPI/VCI for Existing VCC

Commands are shown as below:
$pvc delete <dsl: 1~24> <pvc: 1~8>
$pvc create <dsl: 1~24> <pvc: 1~8> <vpi> <vci> [<llcmux|vcmux>] [<interle aved|fast>]

2.2 Interface Stack (instance number)

Commands are shown as below:

Bridge Port (1~193)

|__ Ethernet (1)

|__ EOA (Ethernet over ATM) (192)

|__ AAL5 (vpi/vci, fast/interleaved) (192)

|__ ATM (max VCs) (24)

|__ DSL (line/alarm profile, ...) (24)

2.2.1 How to Change Management IP Address for Existing Ethernet Port

Commands are shown as below:
a. IVD>network staticIP <new-ip> <mask> <gateway>

2.2.2 How to Create more VC/EOA/Bridge

Commands are shown as below:
$create atm vc intf ifname aal5-* vpi <vpi> vci <vci> lowif atm-*
        [vcmux/llcmux] [fast/interleaved]
$create eoa intf ifname eoa-* lowif aal5-*
$create bridge port intf portid <bridge-port-id> ifname eoa-*

2.2.3 How to Setup SNMP Community/Host/Trap

Commands are shown as below:
$create snmp comm community <community> RW
$create snmp host ip <host-ip> community <community>

$create snmp traphost ip <host-ip> community <community>

2.2.4 How to Create VLAN

Commands are shown as below:
$create vlan static vlanname <vlan-name> valnid <vlan-id>
 [egressports <bridge ports>]

For example:

(1) In the IVD console, switch to DSL console

IVD>dsl -c

(2) create two pvc of 4th port, 0/35, 8/35
   $pvc create 4 1 0 35
   $pvc create 4 2 8 35

(3) create static vlan group 315 for 4, 304 for 28
   $create vlan static vlanname 315th vlanid 315 egressports 4 193 untaggedports 4
   $create vlan static vlanname 304th vlanid 304 egressports 28 193 untaggedports 28

(4) apply vlan group to pvc
   $gvrp port info portid 4 portvlanid 315
   $gvrp port info portid 28 portvlanid 304

(5) remove port id 4, 28 from default vlan id 1
   $vlan static vlanid 1 egressports 1 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

   193 untaggedports 1 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 193

2.2.5 How to Setup Port VALN ID (PVID)

Commands are shown as below:
$modify gvrp port info portid <bridge-port-id> portvalnid <default-pvid>

2.2.6 How to Filter MAC Address by Port

Commands are shown as below:
$create acl port macentry portId <bridge-port-id> macaddr 00:00:00:01:02:03
$create acl port macentry portId <bridge-port-id> macaddr 00:00:00:01:02:04
// allow source address 00:00:00:01:02:03/04 access from bridge port
<bridge-port-id>
// other source addresses from bridge port <bridge-port-id> are denied

2.2.7 How to Deny MAC Address Globally

Commands are shown as below:
$create acl global macentry macaddr 00:00:00:01:02:03 deny enable
// mac asource address 00:00:00:01:02:03,04 access from any bridge ports is denied

2.2.8 How to Filter NetBIOS

Commands are shown as below:
// NETBIOS-NS Name Service   137   TCP/UDP
// NETBIOS-DGM   Datagram Service   138   TCP/UDP
// NETBIOS-SSN   Session Service139   TCP/UDP
$create filter rule entry ruleid <id> action drop description NETBIOS-TCP
$create filter subrule tcp ruleid <id> subruleid 1
srcportfrom 137 srcportto 139 srcportcmp inrange
$modify filter rule entry ruleid <id> status enable
$create filter rule map ifname all ruleid <id> stageid 1
$create filter rule entry ruleid <id2> action drop description NETBIOS-UDP
$create filter subrule udp ruleid <id2> subruleid 1
srcportfrom 137 srcportto 139 srcportcmp inrange
$modify filter rule entry ruleid <id2> status enable
$create filter rule map ifname all ruleid <id2> stageid 1

2.2.9 How to Enable Spanning Tree Protocol

Commands are shown as below:
// enable STP globally
$modify stp info enable

// bridge port id: 1~24, 193
$modify stp port info portid <bridge-port-id> enable
$get stp port info portid <bridge-port-id>

2.2.10 How to Enable IGMP Snooping

Commands are shown as below:

// NOTE: IGMP Snooping is Factory Default Setting
$create filter rule entry ruleid <id> action sendtocontrol description IGMP
$create filter subrule ip ruleid <id> subruleid 1
prototypefrom 2 prototypecmp eq
$modify filter rule entry ruleid <id> status enable
$create filter rule map ifname all ruleid <id> stageid 1
$modify igmpsnoop cfg info status enable
$modify igmpsnoop port info portid <bridge-port-id> status enable
leavemode fastNormal
or
$modify igmpsnoop port info portid <bridge-port-id> status enable
leavemode Fast

2.2.11 How to Remote Upgrade Control Plane Code

Commands are shown as below:
- Prepare tftp server
- Prepare vendor supplied CP.bin.gz
- Put CP.bin.gz into root directory of tftp server

$list

Name	Ver	Time	Size	Acc State
--				
/nvram/bin/bootptftp/				
TftpBootp.bin	1	Mon Aug 23 16:52:58 2004	110008	RO active
/nvram/bin/control/				
CP.bin.gz	1	Mon Aug 23 16:52:58 2004	1467208	RW active
/nvram/bin/dataplane/				
DP.bin.gz	1	Mon Aug 23 16:52:58 2004	252784	RW active
/nvram/bin/decompressor/				
Decompressor.bin	1	Mon Aug 23 16:52:58 2004	81160	RO active

$remove fname /nvram/bin/control/CP.bin.gz version 1   <-- depends on real status

$download src CP.bin.gz dest /nvram/bin/control/CP.bin.gz ip <server-ip>

$list

Name	Ver	Time	Size	Acc State
--				
/nvram/bin/bootptftp/				
TftpBootp.bin	1	Thu Aug 26 18:31:22 2004	110008	RO active
/nvram/bin/control/				
CP.bin.gz	2	Thu Jan 01 00:13:28 1970	1467204	RW Latest
/nvram/bin/dataplane/				
DP.bin.gz	1	Thu Aug 26 18:31:22 2004	252784	RW active
/nvram/bin/decompressor/				
Decompressor.bin	1	Thu Aug 26 18:31:22 2004	81160	RO active

NOTE: the Ver of CP.bin.gz becomes 2

NOTE: the State of CP.bin.gz becomes "Latest"

$upgrade fname /nvram/bin/control/CP.bin.gz version 2   <-- depends on real status

NOTE: the State of CP.bin.gz becomes "active"

$reboot

2.3 How to Save the Latest Configuration

Commands are shown as below:
$commit

2.4 How to Remote Upgrade Full Image

Commands are shown as below:

1. Prepare tftp server

2. Prepare vendor supplied DSLImage-A24-A-1GE-2.10.2.8.all

3. Use the CLI command to upgrade firmware.
$firmware upgrade [-]DSLImage-A24-A-1GE-2.10.2.8.all <ALL> <server ip>

3

IVD Slave VoIP Commands

3.1 Command Line Introduction

In addition to the SNMP management, users can use commands to configure the IVD VoIP Board. Users can do telnet on the IVD VoIP Board and use the following two ways. One is console interface; another is telnet by management port.

The IP DSLAM Controller console interface will connect to PC console port. Users can use terminal emulation software configured by the following parameters.

- VT100 terminal emulation
- 9600 bps
- No parity, 8 data bits, 1 stop bit
- No hardware flow control

Users can call type '?' for help. The "IVD> " symbol is just only a prompt.

Another tools for command interface is telnet via management port. The PC should be the same subnet as IVD VoIP Board. The default IP address is 172.16.1.2. The default login name is "**admin**", password is"**1234**".

3.2 Root Commands

3.2.1 Enter Function Commands

- Enter access control list configuration function

IVD> acl

- Enter system diagnostics function

IVD> diag

- Enter network configuration function

IVD> network

- Enter qos configuration function

IVD> qos

- Enter system configuration function

IVD> system

- Enter voip configuration function

IVD> voip

3.2.2 DSL Module Commands

- Help

IVD> dsl ?

- Login to DSL module in master via serial channel

IVD> dsl –c

- Force login to DSL module in master via serial channel

IVD> dsl –cf

3.2.3 Other Commands

- Help

IVD> ?

- Logout the CLI or the Telnet connection

IVD> exit

or

IVD> logout

or

IVD> quit

3.3 ACL Commands

3.3.1 General Commands

- Enter access control list configuration function

IVD> acl

- Help in the access control list configuration function

IVD/acl> ?

- Back to the root commands

IVD/acl> ..

3.3.2 SNMP Access Control List Commands

- Help

IVD/acl> snmp ?

- Display SNMP-ACL settings

IVD/acl> snmp -s

- Add the SNMP-ACL entry

IVD/acl> snmp -a <IP address>

- Edit the SNMP-ACL entry

IVD/acl> snmp -e <Index> <IP address>

- Delete the SNMP-ACL entry

IVD/acl> snmp -d <Index>

- Delete all SNMP-ACL entries

IVD/acl> snmp -D

3.3.3 Telnet Access Control List Commands

- Help

IVD/acl> telnet ?

- Display Telnet-ACL settings

IVD/acl> telnet -s

- Add the Telnet-ACL entry

IVD/acl> telnet -a <IP address>

- Edit the Telnet-ACL entry

IVD/acl> telnet -e <Index> <IP address>

- Delete the Telnet-ACL entry

IVD/acl> telnet -d <Index>

- Delete all Telnet-ACL entries

IVD/acl> telnet –D

3.4 Diagnostics Commands

3.4.1 General Commands

- Enter system diagnostics function

IVD> diag

- Help in the system diagnostics function

IVD/diag> ?

- Back to the root commands

IVD/diag> ..

3.4.2 ARP table Commands

- Help

IVD/diag> arp ?

- ARP commands usage

IVD/diag> arp -h

- ARP talbe diagnostics utility

IVD/diag> arp <cmd>

3.4.3 Learning_table Commands

- Help

IVD/diag> learning_table ?

- Learning_table commands usage

IVD/diag> Learning_table

3.4.4 Netstat Commands

- Help

IVD/diag> netstat ?

- Netstat commands usage

IVD/diag> netstat h

- Netstat diagnostics utility

IVD/diag> netstat <cmd>

3.4.5 Nslookup Commands

- Help

IVD/diag> nslookup ?

-Nslookup diagnostics utility

IVD/diag> nslookup <IPorDomainName>

3.4.6 Ping Commands

- Help

IVD/diag> ping ?

- Ping commands usage

IVD/diag> ping

- Ping diagnostics utility

IVD/diag> ping <cmd>

3.4.7 Route Commands

- Help

IVD/diag> route ?

- Route commands usage

IVD/diag> route h

- Route diagnostics utility

IVD/diag> route <cmd>

3.4.8 Traceroute Commands

- Help

IVD/diag> traceroute ?

- Traceroute commands usage

IVD/diag> traceroute

- Traceroute diagnostics utility

IVD/diag> traceroute <cmd>

3.4.7 VLAN_Ping Commands

- Help

IVD/diag> vlan_ping ?

- Ping commands usage

IVD/diag> vlan_ping

- Ping diagnostics utility

IVD/diag> vlan_ping <vlan_if> <IP_addr>

3.5 Network Commands

3.5.1 General Commands

- Enter network configuration function

IVD> network

- Help in the network diagnostics function

IVD/network> ?

- Back to the root commands

IVD/network> ..

3.5.2 Dhcpc Commands

- Help

IVD/network> dhcpc ?

- Display the setting

IVD/network> dhcpc -s

- Enable/Disable the private dhcp client for IVD Master

IVD/network> dhcpc <Active>

3.5.3 StaticIP Commands

- Help

IVD/network> staticIP ?

- Display the setting

IVD/network> staticIP –s

- Edit the VoIP static IP address, mask and gateway

IVD/network> staticIP <IP > <Netmask> <Gateway>

- Edit the VoIP static IP primarydns and secondarydns

IVD/network> staticIP –n <PrimaryDNS> <SecondaryDNS>

3.6 QoS Commands

3.6.1 General Commands

- Enter qos configuration function

IVD>qos

- Help in the qos configuration function

IVD/qos ?

- Back to the root commands

IVD/qos ..

3.6.2 Bind_VLAN Commands

- Help

IVD/qos> bind_vlan ?

- Display the setting

IVD/qos> bind_vlan -s

- Bind MGCP/SIP to specified VLAN Interface

IVD/qos> bind_vlan –m <VLAN>

- Bind RTP to specified VLAN Interface

IVD/qos> bind_vlan –r <VLAN>

- Bimd SNMP to specified VLAN Interface

IVD/qos> bind_vlan –n <VLAN>

- Bimd Others to specified VLAN Interface

IVD/qos> bind_vlan –o <VLAN>

3.6.3 ToS_dscp Commands

- Help

IVD/qos> tos_dscp ?

- Display the setting

IVD/qos> tos_dscp -s

- Edit the tos/dscp value for RTP, MGCP and SIP

IVD/qos> tos -v <RTP_Value> <MGCP_Value> <SIP_Value>

- Edit the tos value for SNMP

IVD/qos> tos -n <SNMP_Value>

Value	Assign a TOS value in VoIP protocol packet. Range: 00 ~ ff (by hex value) (Default is 0xa0)

3.6.4 VLAN_IP Commands

- Help

IVD/qos> vlan_ip ?

- Display the setting

IVD/qos> vlan-ip -s

- Edit the VID, Priority, IP Address, Subnet Mask, Default Gateway on VLAN Interface

IVD/qos> vlan_ip <Index> <VID> <UserPrio> <IP> <Netmask> <Gateway>

3.7 System Commands

3.7.1 General Commands

- Enter system configuration function

IVD> system

- Help in the system configuration function

IVD/system> ?

- Back to the root commands

IVD/system> ..

3.7.2 Auto Logout Commands

- Help

IVD/system > auto_logout ?

- Display the setting

IVD/system > auto_logout -s

- Edit the max-cli-session number

IVD/system > auto_logout -n <MaxSess>

- Kill the #'s log-session

IVD/system > auto_logout -d <SessNum>

- Edit the maximum idle time of auto logout

IVD/system > auto_logout -m <MaxIdleTime>

- Enable/Disable the auto logout

IVD/system > auto_logout <Active>

3.7.3 Basic Information Commands

- Help

IVD/system> basicInfo ?

- Display the system information

IVD/system> basicInfo -s

- Execute the system Contact command

IVD/system> basicInfo -c <SysCont>

- Execute the system Name command

IVD/system> basicInfo -n <SysName>

- Execute the system Location command

IVD/system> basicInfo -l <SysLoc>

3.7.4 Config Backup/Restore Commands

- Help

IVD/system> config ?

- Display the setting

IVD/system> config –s

- Execute the backup action

IVD/system> config backup <fname> <servIP>

- Execute the restore action

IVD/system> config restore <fname> <servIP>

3.7.5 Reboot Commands

- Help

IVD/system> reboot ?

- Reboot the system

IVD/system> reboot

- Reboot the system with keeping some important configuration

IVD/system> reboot keep

- Reboot the system with factory default configuration

IVD/system> reboot default

- Reboot the IVD VOIP board only

IVD/system> reboot voip

- Reboot the IVD DSL board only

IVD/system> reboot dsl

3.7.6 Snmpd Commands

- Help

IVD/system> snmpd ?

- Display the community setting

IVD/system> snmpd -s

- Edit the traphost setting

IVD/system>snmpd –h <traphost>

- Edit the community setting

IVD/system> snmpd -c <CommRO> <CommRW> <CommTrap>

3.7.7 Syslogd Commands

- Help

IVD/system> syslogd ?

- Display the syslog setting

IVD/system> syslogd -s

- Edit the syslog setting

IVD/system> syslogd <Active> <RIP> <RPort>

3.7.8 Upgrade Commands

- Help

IVD/system> upgrade ?

- Display the setting

IVD/system> upgrade -s

- Execute the firmware upgrade

IVD/system> upgrade   <File Name> <Server IP>

3.8 Voip Commands

3.8.1 General Commands

- Enter voip configuration function

IVD> voip

- Help in the voip diagnostics function

IVD/voip> ?

- Back to the root commands

IVD/voip> ..

3.8.2 Enter Function Commands

- Enter linetest configuration function

IVD> voip>linetest

- Enter mgcp configuration function

IVD> voip>mgcp

- Enter voip miscellaneous configuration function

IVD/voip>misc

- Enter sip configuration function

IVD/voip>sip

- Enter voip statistics configuration function

IVD/voip>statistics

- Enter voip tone configuration function

IVD/voip>tone

3.8.3 Config Commands

- Help

IVD/voip> config ?

- To activate voip configuration

IVD/voip> config activate

3.8.4 List Commands

- Help

IVD/voip> listcmds ?

- Show all voip commands

IVD/voip> listcmds

3.8.5 Protocol Commands

- Help

IVD/voip>protocol ?

- Display the setting

IVD/voip>protocol -s

- Choose the voip protocol

IVD/voip>protocol <Protocol>

Select Protocol	Users can choose one of two protocols, one is **SIP**, and the other is **MGCP**. The default setting is **SIP**.

3.8.6 VoIP Status Commands

- Help

IVD/voip> status ?

- Show voip status of port#

IVD/voip> status <Port>

- Show all voip status

IVD/voip> status

Register Status	It shows the status of registering in proxy server.
Call Status	It shows the calling status.
Call Type	It shows the dialing direction for this phone calling.
Caller Number	It shows the phone number of caller.
Callee Number	It shows the phone number of calling receiver.
Start Time	It shows the starting time of calling.
Remote RTP Address	It shows the IP address of remote voice site.
Remote RTP Port	It shows the used port number of remote voice site.
RTP Statistic	It shows the RTP Statistic.

Codec Type	It shows the Codec mode used for this phone calling.
Packet Period	It shows the period of time for sampling on voice signal.
VAD	It shows the status of VAD.
DTMF Relay	It shows the status of DTMF.

3.9 Linetest Commands

3.9.1 General Commands

- Enter linetest configuration function

IVD/voip> linetest

- Help in the linetest diagnostics function

IVD/voip/linetest> ?

- Back to the voip commands

IVD/voip/ linetest > ..

3.9.2 Line_card_test Commands

- Help

IVD/voip/ linetest > line_card_test ?

- Execute voip line_card_test

IVD/voip/ linetest > line_card_test <Line> <TestItem>

3.9.3 Metallic_loop_test Commands

- Help

IVD/voip/ linetest >metallic_loop_test ?

- Execute voip metallic_loop_test

IVD/voip/ linetest > metallic_loop_test <Line> <TestItem>

3.9.4 User_phone_test Commands

- Help

IVD/voip/ linetest >user_phone_test ?

- Execute voip user_phone_test

IVD/voip/ linetest > user_phone_test <Line> <TestItem>

3.10 MGCP Commands

3.10.1 General Commands

- Enter mgcp configuration function

IVD/voip> mgcp

- Help in the mgcp diagnostics function

IVD/voip/mgcp> ?

- Back to the voip commands

IVD/voip/mgcp> ..

3.10.2 Call Agent Commands

- Help

IVD/voip/mgcp> callagent ?

- Display the setting

IVD/voip/mgcp> callagent -s

- Edit the IP address and port number for call agent

IVD/voip/mgcp> callagent <IPAddress> <Port>

MGCP Call Agent IP Address	Assign an IP address of Call Agent server in MGCP. (Default is 192.168.100.100)
MGCP Call Agent Port	Assign a UDP port number to Call Agent server. 1...65535 (Default is 2727)

3.10.3 Call Agent2 Commands

- Help

IVD/voip/mgcp> callagent2 ?

- Display the setting

IVD/voip/mgcp> callagent2 -s

- Edit the IP address and port number for call agent2

IVD/voip/mgcp> callagent2 <IPAddress> <Port>

MGCP Call Agent2 IP Address	Assign an IP address of Call Agent2 server in MGCP.
MGCP Call Agent2 Port	Assign a UDP port number to Call Agent2 server.

3.10.4 Dual-Homing Commands

- Help

IVD/voip/mgcp> dual_homing ?

- Display the setting

IVD/voip/mgcp> dual_homing -s

- Edit the dual_homing action

IVD/voip/mgcp> dual_homing <Active>

- Edit the period of heartbeat for dual_homing

IVD/voip/mgcp> dual_homing –t <Sec>

- Edit the retry times of dual_homing

IVD/voip/mgcp> dual_homing –r <Times>

MGCP Dual Homing Action	It shows the dual homing action.
MGCP Dual Homing Period	Setting the period of dual homing.
MGCP Dual Homing Retry Times	Setting the retry times of dual homing.

3.10.5 End Point Name ID Style Commands

- Help

IVD/voip/mgcp> epidstyle ?

- Display the setting

IVD/voip/mgcp> epidstyle -s

- Edit the style mode for end point

IVD/voip/mgcp> epidstyle <Mode>

- Edit the port number base id for end point

IVD/voip/mgcp> epidstyle –b <BaseNum>

- Edit the domain name for end point

IVD/voip/mgcp> epidstyle –m <DomainName>

EndPoint Name Style	There are four options for users to select.
	0. <u>aaln/#@[ip_addr]</u> ex: aaln/1@[1.1.1.1]
	1. <u>mac_addr/#@[ip_addr]</u> ex: 000504030201/1@[1.1.1.1]
	2. aaln/#@mac_addr ex: aaln/1@000504030201
	3. aaln/#@domain_name ex: <u>aaln/1@callagent.com</u>
	(Default is 0)

3.10.6 MGCP Local Port Commands

- Help

IVD/voip/mgcp> localport ?

- Display the setting

IVD/voip/mgcp> localport -s

- Edit the local port number for MGCP protocol

IVD/voip/mgcp> localport <Port>

MGCP Call Agent Port	Assign a UDP port number to Call Agent server. 1...65535 (Default is 2427)

3.10.7 Wildcarded RSIP Commands

- Help

IVD/voip/mgcp> wildrsip ?

- Display the setting

IVD/voip/mgcp> wildrsip -s

- Setting the wildcarded RSIP action

IVD/voip/mgcp> wildrsip <Active>

Active	There are two options for users to select. **Each endpoint sends its own RSIP** **Send only one wild-carded RSIP** "**Enable**" to activate this function. "**Disable**" to close this function. (Default is Disable)

3.11 MISC Commands

3.11.1 General Commands

- Enter misc configuration function

IVD/voip>misc

- Help in the misc diagnostics function

IVD/voip/misc> ?

- Back to the voip commands

IVD/voip/misc> ..

3.11.2 Dialing Timeout Commands

- Help

IVD/voip/misc> dialing_timeout ?

- Display the setting

IVD/voip/misc> dialing_timeout -s

- Edit the dialing completion timeout value

IVD/voip/misc> dialing_timeout <value>

Value	1~60 (unit is second) (Default is 4)

3.11.3 Failover Commands

- Help

IVD/voip/misc> failover ?

- Display the setting

IVD/voip/misc> failover –s

- Enable/Disable fail-over when network is disconnected

IVD/voip/misc> failover –n <Mode>

- Force to use phone interface

IVD/voip/misc> failover –f <Mode>

3.11.4 Gain Commands

- Help

IVD/voip/misc> gain ?

- Display the setting

IVD/voip/misc> gain -s

- Edit the speaker and microphone gain

IVD/voip/misc> gain <Device port> <Speaker Gain> <Microphone Gain>

Device port	Device port number (1~24).
Speaker Gain	Assign the gain value while receiving voice, default value is 0. The range is from -14 to 6. (Default is 0)
Microphone Gain	Assign the gain value while transmitting voice, default value is 0. The range is from -14 to 6. (Default is 0)

3.11.5 LineImpedance Commands

- Help

IVD/voip/misc> lineImpedance ?

- Display the setting

IVD/voip/misc> lineImpedance -s

- Set the same value for each line

IVD/voip/misc> lineImpedance <Country>

- Set the value for the port

IVD/voip/misc> lineImpedance <line> <Country>

line	Device line number (1~24)
Country	0: 600 Ohm (default) 1: 900 Ohm 2: China

3.11.6 LineLoopCurrent Commands

- Help

IVD/voip/misc> lineLoopCurrent ?

- Display the setting

IVD/voip/misc> lineLoopCurrent -s

- Set the same value for each line

IVD/voip/misc> lineLoopCurrent <Current>

- Set the calue for the line

IVD/voip/misc> lineLoopCurrent <line> <Current>

Line	Device line number(1~24)
Current	25:25 mA (default) 20:20 mA

3.11.7 LinePcmCodec Commands

- Help

IVD/voip/misc> linePcmCodec ?

- Display the setting

IVD/voip/misc> linePcmCodec -s

- Set the same value for each line

IVD/voip/misc> linePcmCodec <codec>

- Set the calue for the line

IVD/voip/misc> linePcmCodec <line> <codec>

Line	Device line number(1~24)
codec	0: Mu-LAW (default) 1: A-LAW

3.11.8 Metering Commands

- Help

IVD/voip/misc> metering ?

- Display the setting

IVD/voip/misc> metering -s

- Setting Metering mode

IVD/voip/misc> metering -m <Metering Mode>

- Setting Reversal mode

IVD/voip/misc> metering -r <Reversal Mode>

Metering Mode	0:Line polarity reversal (default)
	1:12KHZ Tone
	2:16KHZ Tone
Reversal Mode	0: Reverse as peer end-point On-hook (default)
	1: Reverse as callee Off-hook

3.11.9 NAT Traversal Commands

- Help

IVD/voip/misc> nat ?

- Display the setting

IVD/voip/misc> nat -s

- Disable NAT traversal function

IVD/voip/misc> nat <Disable Mode>

- Enable Manual mode and WAN IP Address for NAT router

IVD/voip/misc> nat <Manual Mode> <NatIpAddr>

- Enable Auto mode and related parameters

IVD/voip/misc> nat <Auto Mode> <Type> <LocalPort> <ServerIP> <ServerPort>

- Edit symmetric media setting

IVD/voip/misc> nat –sym <sym_rtp_t38>

Disable	Disable this function. The application is IVD has a public WAN IP address.
	(not behind a NAT router)
	0: Disable NAT traversal (Default is 0)
	1: Manually input NAT IP address
	2: Auto discover NAT IP address
Manually Input NAT IP Address	
NAT IP Address	Assign an IP address as NAT IP address.
	The application is when IVD is behind a NAT router, and NAT router uses a static WAN IP address. This value is same as WAN IP in NAT router.
	(Default is 172.0.0.1)
Auto Discovery NAT IP Address	
STUN Local Port	Assign a port number of STUN server.
	(Default is 3478)
STUN Server Address	Assign an IP address of STUN server.
	(Default is stun.fwdnet.net)
STUN Server Port	Assign a server port number of STUN server.
	(Default is 3478)
Type	0: Semi-auto (need to configure NAT)
	1: Full-auto (no need to configure NAT) (Default is 1)
Sym_Rtp_T38	Symmetric Media Setting
	0: Disable symmetric RTP and T.38 (Default is 0)
	1: Enable symmetric RTP and T.38

Note: "Auto Discovery NAT IP Address" option is used when IVD is behind a NAT router, NAT uses dynamic WAN IP address like as DHCP or PPPoE client. There must be having a STUN server in Internet. IVD needs to negotiate with STUN server for this function.

Note: The "STUN"(Simple Traversal of UDP through NATs) server is an implementation of the STUN protocol that enables STUN functionality in SIP-based systems. STUN is an application-layer protocol that can determine the public IP and nature of a NAT device that sits between the STUN client and STUN server.

3.11.10 offhookDetect Commands

- Help

IVD/voip/misc>offhookDetect ?

- Display the setting

IVD/voip/misc>offhookDetect -s

- Set the same value for each line

IVD/voip/misc> offhookDetect <Current>

- Set the calue for the line

IVD/voip/misc> offhookDetect <line> <Current>

Line	Device line number(1~24)
Current	8: 8 mA (default) 10: 10 mA 12: 12 mA

3.11.11 Pulsetime Commands

- Help

IVD/voip/misc>pulsetime ?

- Display the setting

IVD/voip/misc> pulsetime -s

- Set these value for pulse time

IVD/voip/misc> pulsetime <breakMin> <breakMax> <flashMin> <flashMax> <makeMin> <makeMax> <interDigitMin>

breakMin	Minimum pulse break time (ms)
breakmax	Maximum pulse break time (ms)
flashMin	Minimum flash break time (ms)
flashmax	Maximum flash break time (ms)

makeMin	Minimum pulse make time (ms)
makeMax	Maximum pulse make time (ms)
interDigitMin	Minimum pulse interdigit time (ms)
1.breakMin < breakMax < flashMin < flashMax	
2.makeMin < makeMax < interDigitMin	

3.11.12 Ring Candence Commands

- Help

IVD/voip/misc>ring_cadence ?

- Display the setting

IVD/voip/misc> ring_cadence -s

- Edit the 8 different patterns of distinctive ringing

IVD/voip/misc> ring_cadence <Index> <Ton1> <Toff1> <Ton2> <Toff2> <Ton3> <Toff3> <Ton4> <Toff4>

3.11.13 RTP Starting Port Commands

- Help

IVD/voip/misc> rtp_port ?

- Display the setting

IVD/voip/misc> rtp_port -s

- Edit the rtp starting port

IVD/voip/misc> rtp_port <Port number>

Port number	Assign a starting port number in RTP protocol packet. 1…65535. (Default is 13456)

3.11.14 Sparce Echo Cancellation Commands

- Help

IVD/voip/misc> sparceEC ?

- Display the setting

IVD/voip/misc> sparceEC -s

- Edit the SparceEC active

IVD/voip/misc> sparceEC <enable>

-Edit Network Echo Canceller Tail Lenth

IVD/voip/misc> sparceEC <enable> <tailLenth>

enable	0: disable
	1: enable
tailLenth	Range: 8~128, should be multiple of 8

3.11.15 T.38 Starting Port Commands

- Help

IVD/voip/misc> t38port ?

- Display the setting

IVD/voip/misc> t38port -s

- Edit the T.38 starting port

IVD/voip/misc> t38port <port>

port	Assign a starting port number in T.38 protocol packet.
	1...65535 (Default is 49170)

3.11.16 T.38 Redundancy Commands

- Help

IVD/voip/misc> t38redundancy ?

- Display the setting

IVD/voip/misc> t38redundancy -s

- Edit the T.38 redundancy number

IVD/voip/misc> t38redundancy <Number>

Number	Assign a redundancy number in T.38 protocol. It means how many payloads to be attached in the tail of packet. 0~4 (Default is 1)

3.12 SIP Commands

3.12.1 General Commands

- Enter sip configuration function

IVD/voip>sip

- Help in the sip configuration function

IVD/voip/sip> ?

- Back to the voip commands

IVD/voip/sip> ..

3.12.2 Enter Function Commands

- Enter incallbarring configuration function

IVD/voip/sip> incallbarring

3.12.3 Advanced Speed Dial Commands

- Help

IVD/voip/sip> advspdial ?

- Display the setting

IVD/voip/sip> advspdial –s

- Add prefix, strip length, append number, destination and memo for the entry

IVD/voip/sip> advspdial –a <Prefix> <Strip> <Append> <Destination> <Memo>

- Edit prefix, strip length, append number, destination and memo for the entry

IVD/voip/sip> advspdial –e <EntryIdx> <Prefix> <Strip> <Append> <Destination> <Memo>

- Delete the entry

IVD/voip/sip> advspdial –d <EntryIdx>

- Delete all entries

IVD/voip/sip> advspdial –D

EntryIdx	1~30
Prefix	Prefix number, ex: 101 (Default is none)
Strip	Strip length (Default is none)
Append	Append number (Default is none)
Destination	IP or Domain name (Default is none)
Memo	Free text (Default is none)

3.12.4 Call Forwarding Commands

- Help

IVD/voip/sip> callforward ?

- Display the setting

IVD/voip/sip> callforward –s

- Edit call forwarding mode

IVD/voip/sip> callforward <Port> <Mode>

- Edit call forwarding mode and SIP URL

IVD/voip/sip> callforward <Port> <Mode> <SipURL>

- Edit call forwarding mode, SIP URL and ringing number for no answer

IVD/voip/sip> callforward <Port> <Mode> <SipURL> <NoAnswerRings>

Port	device port number (1~24)
Mode	0: Disable (Default is 0)
	1: Call forwarding all calls
	2: Call forwarding busy
	3: Call forwarding no answer
SIP URL	sip url format, ex: 101@iptel.org
	(Default is none)
NoAnswerRings	1~10 (ringing times) (Default is 3)

3.12.5 Codec Commands

- Help

IVD/voip/sip> codec ?

- Display the setting

IVD/voip/sip> codec -s

- Edit prefect codec, codec rate and VAD for the port#

IVD/voip/sip> codec <Port> <PreferCodec> <CodecRate> <VAD>

- Edit single codec for the port#

IVD/voip/sip> codec –single <Port> <Active>

Port	Device port number (1~24)
Preferred Codec	Select one Codec to be applied on this port. IVD supports five Codecs.
	0: G.711U(PCMU) -64kbps
	1: G.711A(PCMA) -64kbps
	2: G.729A -8kbps (Default is 2)
	3: G.723.1 -6.3kbps
	4: G.726-32kbps
Codec Rate	Select one rate value to be applied on this port.
	20/40 - for PCMU or PCMA (Default is 20)
	20/40/60/80 - for G.729A (Default is 20)
	30/60 - for G.723.1 (Default is 30)

	20/40 - for G.726 (Default is 20)
VAD	"**Enable**" to activate VAD(Voice Activity Detection, also known as Silence Suppression) function. "**Disable**" to stop using VAD. (Default is Disable)
Active	"**Enable**" to activate this port. "**Disable**" to close this port. (Default is Disable)

3.12.6 DTMF Relay Commands

- Help

IVD/voip/sip> dtmf_relay ?

- Display the setting

IVD/voip/sip> dtmf_relay -s

- Edit dtmf relay mode for the port#

IVD/voip/sip> dtmf_relay <Port> <Mode>

- Edit dtmf relay mode and SIP INFO mode for the port#

IVD/voip/sip> dtmf_relay <Port> <Mode> <SipInfoMode>

Port	Device port number (1~24)
Mode	0: Disable 1: RFC2833 (Default is 1) 2: SIP INFO
SipInfoMode	Click one option to be applied in DTMF function. There are three options to be supported as below – **Disable(Inband)** **RFC2833** **SIP INFO** 0: CISCO 1: NORTEL (If Mode is 1, default is none) (If Mode is 2, default is 0)

3.12.7 FAX Commands

- Help

IVD/voip/sip> fax ?

- Display the setting

IVD/voip/sip> fax -s

- Edit fax mode for the port#

IVD/voip/sip> fax <Port> <Mode>

Port	Device port number (1~24)
Mode	Select a mode to be applied on FAX function. There are two options to be supported as below – **Transparent : FAX will be transmitted via voice channel, no fax relay nor Codec change will be involved**. **T.38 Relay : Using T.38 Fax Relay.** It is the default value. 0: Transparent 1: T.38 Relay (Default is 1)

3.12.8 Group Commands

- Help

IVD/voip/sip> group ?

- Display the setting

IVD/voip/sip> group –s

- Enable/Disable group function and edit ring type

IVD/voip/sip> group <Active > <Rings>

- Edit the group number for the port

IVD/voip/sip> group –p <Port> <Group>

Active	0: Disable (Default is 0) 1: Enable
Rings	0: Rings all ports in the group

	1: Rings the first available port
	2: Rings by round robin (Default is 2)
Port	Assign a port number (1~24)
	(Default is 1~24 mapped to 1~ 24 port)
Group	Assign a group number for assigned port (1~24)
	(Default is 1~24 mapped to 1~ 24 port)

Note - It is very important to provide Group function for voice service in company. Customers can simultaneously call a same phone number to destination. When IVD gets a phone which configured in the first port of a group from Internet, IVD will ring all available ports belonged to this group to provide voice service at the same time. It is the benefit for customer to remember one phone number corresponding to one company. Users can configure 24 groups at most and select each phone line belongs to one specific group. Each phone line is only for one group and not permitted to be overlapped.

3.12.9 Hotline Commands

- Help

IVD/voip/sip> hotline ?

- Display the setting

IVD/voip/sip> hotline -s

- Enable/Disable the hotline function

IVD/voip/sip> hotline <Port> <Active>

- Edit the hotline number

IVD/voip/sip> hotline <Port> <Active> <<Digits>

Port	device port number (1~24)
Active	"**Enable**" to activate this function.
	"**Disable**" to close this function. (Default is Disable)
Digits	Default is none

3.12.10 Local Port Commands

- Help

IVD/voip/sip> localport ?

- Display the setting

IVD/voip/sip> localport –s

- Edit sip local port number

IVD/voip/sip> localport <Port>   1…65535 (Default is 5060)

3.12.11 Phone Number Commands

- Help

IVD/voip/sip> phonenumber ?

- Display the setting

IVD/voip/sip> phonenumber -s

- Enable/Disable the port#

IVD/voip/sip> phonenumber <Port> <Active>

- Edit phone number, password, display name and authentication id for port#

**IVD/voip/sip> phonenumber <Port> <Active> <PhoneNum> <Password>
<DisplayName> <AuthID>**

Port	Device port number (1~24).
Active	"**Enable**" to activate this port. "**Disable**" to close this port.
PhoneNum	Assign a number as a user name for each phone line. (Default is 1001~1024 mapped to 1~24 port)
Password	Assign a user password for each phone line. (Default is 0000)
Display Name	Assign a user name to be displayed on another phone terminal. (Default is 1001~1024 mapped to 1~24 port)
AuthID	Assign a auth ID to authenticate with proxy server. (Default is 1001~1024 mapped to 1~24 port)

3.12.12 Port Proxy Commands

- Help

IVD/voip/sip> portproxy ?

- Display the setting

IVD/voip/sip> portproxy -s

- Choose proxy for the port

IVD/voip/sip> portproxy <Port> <Proxy#>

3.12.13 Server Commands

- Help

IVD/voip/sip> server ?

- Display the setting

IVD/voip/sip> server -s

- Enable/Disable the proxy server

IVD/voip/sip> server <Proxy#> <Active>

- Enable/Disable the proxy server and outbound proxy

IVD/voip/sip> server <Proxy#> <Active> <Outbound>

- Edit the proxy server parameters

IVD/voip/sip> server <Proxy#> <Active> <Outbound> <ProxyName> <ProxyIP> <ProxyPort> <RegistrarIP> <RegistrarPort> <Expires> <Domain>

Proxy#	Proxy # is from 1 to 3.
Active	0: Disable (Default is 0) 1: Enable
Outbound	0: Disable (Default is 0) 1: Enable (It means that each SIP protocol packet will be sent to SIP proxy server always.)
ProxyName	Assign a name of SIP proxy server. (Default is none)
ProxyIP	Assign an IP address of SIP proxy server. (Default is 0)

ProxyPort	Assign a port number of SIP proxy server. 1...65535 (Default is 5060)
RegistrarIP	Assign an IP address or domain name of SIP register server. (Default is 0)
RegistrarPort	Assign a port number of SIP register server. 1...65535 (Default is 5060)
Expires	Assign a timeout value for SIP protocol, the default value is 300. (minimum 60 seconds)
Domain	Assign an IP address or domain name of SIP Domain/Realm. (Default is 0)

3.12.14 Speed Dial Commands

- Help

IVD/voip/sip> speeddial ?

- Display the setting

IVD/voip/sip> speeddial –s

- Add speeddial number and destination for the entry

IVD/voip/sip> speeddial –a <Number> <Destination> <Memo>

- Edit speeddial number, destination and memo for the entry

IVD/voip/sip> speeddial –e <Index> <Number> <Destination> <Memo>

- Delete the entry

IVD/voip/sip> speeddial –d <Index>

- Delete all entries

IVD/voip/sip> speeddial –D

Index	1~150
Number	Assign a dialing phone number.Ex: 101
Destination	Assign an address of dialing destination. Ex: 101@iptel.org
Memo	Users can add some descriptions for each number. (Default is none)

3.12.15 General Commands

- Enter incallbarring configuration function

IVD/voip/sip>incallbarring

- Help in the incallbarring configuration function

IVD/voip/sip/incallbarring> ?

- Back to the sip commands

IVD/voip/sip/incallbarring> ..

3.12.16 Allow List Commands

- Help

IVD/voip/sip/incallbarring> allow ?

- Display the setting

IVD/voip/sip/incallbarring> allow -s

- Add the index entry in the allow list

IVD/voip/sip/incallbarring> allow –a <Name> <IP/Domain>

- Edit the index entry in the allow list

IVD/voip/sip/incallbarring> allow –e <Index> <Name> <IP/Domain>

- Delete the index entry in the allow list

IVD/voip/sip/incallbarring> allow –d <Index>

- Delete all entries

IVD/voip/sip/incallbarring> allow –D

Index	1~30 (Default is none)
Name	Assign a name or number in allow list. Free text (Default is none)
IP/Domain	Assign an IP address or domain name in allow list.
	If the other side had registered in SIP proxy server, please type the domain name of SIP

	proxy server.
	If the other side had not registered in SIP proxy server, please type the static IP address or DDNS domain name.
	ex: 192.168.1.1/iptel.org (Default is none)

3.12.17 Deny List Commands

- Help

IVD/voip/sip/incallbarring> deny ?

- Display the setting

IVD/voip/sip/incallbarring> deny -s

- Add the index entry in the deny list

IVD/voip/sip/incallbarring> deny -a <Name> <IP/Domain>

- Edit the index entry in the deny list

IVD/voip/sip/incallbarring> deny -e <Index> <Name> <IP/Domain>

- Delete the index entry in the deny list

IVD/voip/sip/incallbarring> deny –d <Index>

- Delete all entries

IVD/voip/sip/incallbarring> deny –D

Name	Assign a name in deny list.
IP/Domain	Assign an IP address or domain name in deny list.
	If the other side had registered in SIP proxy server, please type the domain name of SIP proxy server.
	If the other side had not registered in SIP proxy server, please type the static IP address or DDNS domain name.

3.12.18 Set Commands

- Help

IVD/voip/sip/incallbarring> set ?

- Display the setting

IVD/voip/sip/incallbarring> set -s

- Edit the class, match mode and speeddial entries

IVD/voip/sip/incallbarring> set <Class> <MatchName> <MatchIP> <SpeeddialFrom> <SpeeddialTo>

Class	There are five options users can use. 0: Allow all incoming calls. (Default is 0) 1: Allow only calls from allow list. 2: Allow only calls from speed dial entries. 3: Deny only calls from deny list. 4: Deny all incoming calls.
Match Method	
MatchName	"**Disable**" to disable this field mapped in speed dial table as "**Speed Dial Phone Number**" to be checked. "**Enable**" to enable this field mapped in speed dial table as "**Speed Dial Phone Number**" to be checked. (Default is Enable)
MatchIP	"**Disable**" to disable this field mapped in speed dial table as "**Speed Dial Destination**" to be checked. "**Enable**" to enable this field mapped in speed dial table as "**Speed Dial Destination**" to be checked. (Default is Enable)
SpeeddialFrom	1~150 (Default is 1)
SpeeddialTo	1~150 (Default is 150)

3.13 Statistics Commands

3.13.1 General Commands

- Enter statistics configuration function

IVD/voip>statistics

- Help in the statistics diagnostics function

IVD/voip>statistics ?

- Back to the voip commands

IVD/voip/tone> ..

3.13.2 Call Statistics Commands

- Help

IVD/voip/statistics> callstat ?

- Display the setting

IVD/voip/statistics> callstat

- Display the setting by port

IVD/voip/statistics> callstat <Port>

- Edit the range for callstat port

IVD/voip/statistics> callstat <Port> <Range>

Port	Device port number (1~24)
Range	0: 15 minutes 1: 24 hour

3.13.3 RTP Statistics Commands

- Help

IVD/voip/statistics> rtpstat ?

- Display the setting

IVD/voip/statistics> rtpstat

- Display the setting by port

IVD/voip/statistics> rtpstat <Port>

- Edit the range for rtpstat port

IVD/voip/statistics> rtpstat <Port> <Range>

Port	Device port number (1~24)
Range	0: 15 minutes 1: 24 hour

3.13.3 RTP threshold Commands

- Help

IVD/voip/statistics> rtpthreshold ?

- Display the setting

IVD/voip/statistics> rtpthreshold -s

- Edit the value for rtpthreshold

IVD/voip/statistics> rtpthreshold <mode> <delayLow> <delayHigh> <jitterLow> <jitterHigh> <lostLow> <lostHigi> <timeout>

mode	0: disable 1: enable
delayLow delayHigh jitterLow jitterHigh lostLow lostHigh timeout	Round Trip Delay Low Threshold (ms) Round Trip Delay High Threshold (ms) Jitter Low Threshold (ms) Jitter High Threshold (ms) Packet Loss Ratio Low Threshold (0..100%) Packet Loss Ratio High Threshold (0..100%) RTCP timeout (in seconds)

3.13.5 Show Alert Commands

- Help

IVD/voip/statistics> showalert ?

- Display all port setting

IVD/voip/statistics> showalert

- Display the setting by port

IVD/voip/statistics> showalert <Port>

3.14 Tone Commands

3.14.1 General Commands

- Enter tone configuration function

IVD/voip>tone

- Help in the tone diagnostics function

IVD/voip/tone> ?

- Back to the voip commands

IVD/voip/tone> ..

3.14.2 Enter Function Commands

- Enter user_defined configuration function

IVD/voip/tone> user_defined

3.14.3 Region Commands

- Help

IVD/voip/tone> region ?

- Display the setting

IVD/voip/tone> region -s

- choose the region for CPT setting

IVD/voip/tone> region <Region Number>

Region Number	Select one country area for using VoIP feature. There is one option **User Defined** for proprietary setting.
	0 : User Defined
	1 : Australia
	2 : British (Default is 2)
	3 : Canada
	4 : China
	5 : Denmark

	6 : Finland
	7 : France
	8 : Germany
	9 : Hong Kong
	10 : India
	11 : Japan
	12 : Netherlands
	13 : Norway
	14 : Singapore
	15 : Taiwan
	16 : USA

3.14.4 Busy Tone Commands

- Help

IVD/voip/tone/user_defined> busy ?

- Display the setting

IVD/voip/tone/user_defined> busy -s

- Edit frequency and cadence for busy tone

IVD/voip/tone/user_defined> busy <Lowfreq> <Highfreq> <Ton1> <Toff1> <Ton2> <Toff2>

Low Frequency(Hz)	Assign a low frequency number in Hertz unit. (unit is HZ) (Default is 350)
High Frequency(Hz)	Assign a high frequency number in Hertz unit. (unit is HZ) (Default is 440)
Ton1(msec)	The duration of the first ringing. (10msec per unit) (Default is 0)
TOff1(msec)	The silence duration after the first ringing. (10msec per unit) (Default is 0)
Ton2(msec)	The duration of the next continuous ringing. (10msec per unit) (Default is 0)
Toff2(msec)	The silence duration after the next continuous ringing. (10msec per unit) (Default is 0)

3.14.5 Caller ID Commands

- Help

IVD/voip/tone/user_defined> callerid ?

- Display the setting

IVD/voip/tone/user_defined> callerid -s

- Edit caller id type

IVD/voip/tone/user_defined> callerid <Type>

Type	0: North America
	1: JAPAN
	2: ETSI (Default is 2)
	3: DTMF

3.14.6 Congestion Tone Commands

- Help

IVD/voip/tone/user_defined> congestion ?

- Display the setting

IVD/voip/tone/user_defined> congestion -s

- Edit frequency and cadence for congestion tone

IVD/voip/tone/user_defined> congestion <Lowfreq> <Highfreq> <Ton1> <Toff1> <Ton2> <Toff2>

3.14.7 Dial Tone Commands

- Help

IVD/voip/tone/user_defined> dial ?

- Display the setting

IVD/voip/tone/user_defined> dial -s

- Edit frequency and cadence for dial tone

IVD/voip/tone/user_defined> dial <Lowfreq> <Highfreq> <Ton1> <Toff1> <Ton2> <Toff2>

3.14.8 Ringing Tone Commands

- Help

IVD/voip/tone/user_defined> ringing ?

- Display the setting

IVD/voip/tone/user_defined> ringing -s

- Edit frequency and cadence for ringing tone

IVD/voip/tone/user_defined> ringing <Lowfreq> <Highfreq> <Ton1> <Toff1> <Ton2> <Toff2>

Lowfreq	(unit is HZ) (Default is 440)
Highfreq	(units is HZ) (Default is 480)
Ton1	(10msec per unit) (Default is 0)
Toff1	(10msec per unit) (Default is 0)
Ton2	(10msec per unit) (Default is 200)
Toff2	(10msec per unit) (Default is 400)

4   IVD Master Commands

This chapter is divided into the following sections,

- Section 4.1: The general Configuration of IVD Master
- Section 4.2: Interface Stack (instance number)
- Section 4.3: How to Save the Latest Configuration
- Section 4.4: How to Remote Upgrade Full Image
- Section 4.5: Wizard Commands

4.1 The General Configuration of IVD Master

In addition to the SNMP management, users can use commands to configure the IVD Master. Users can telnet on the IVD Master and use the following two ways. One is console interface; another is telnet by management port.

The IVD Master's console interface will be connected to PC RS-232 serial port. Users can use terminal emulation software configured by the following parameters.

- VT100 terminal emulation
- 9600 bps
- No parity, 8 data bits, 1 stop bit
- No hardware flow control

Users can call type '**?**' for help. The "**Admin>** " symbol is just only a prompt.

Another tool for command interface is management port via Telnet. The PC should be the same subnet as IVD Controller. The default IP address is **172.16.1.2**. Users can also use the following commands to check IP and MAC address in IVD Master. The default login name is "**admin**", password is"**1234**".

4.1.1 Configure the IP Address

Users can use the following commands to configure the IP address for the MGN or UP-LINK interfaces

- Enter network directory

Admin> network

- Help

Admin/network> staticIP ?

- Display the settings

Admin/network> staticIP -s

- Edit the IP address

Admin/network> staticIP <ip> <netmask> <gateway>

4.1.2 Upgrade Firmware

Users can use the following commands to upgrade new firmware.

- Prepare a TFTP server on a host

- Put the firmware (ipdslam.all for example) in the right directory of the TFTP server

- Enter system directory

Admin> system

- Execute the firmware upgrading

Admin/system> upgrade <ServIP> <FirmName>

- Reboot the Controller to run the new firmware

Admin/system> reboot

- After rebooting, check the firmware version

Admin/system> basicInfo

4.1.3 Save the Configuration

Users can use the following command to save the current configuration.

Admin> commit

4.1.4 Connect to DSL Module

Users can login to DSL module in master or slave units using the following command. Once entering into DSL module, the command described in section "DSL Command List" can be used.

- Login to DSL module in master via serial channel

Admin> dsl –c

4.1.5 ECB Service

User can use ECB service via IVD Master. The procedures are as below.

Step 1. Enable ECB function in Master.

 Admin> *service ecb on*

 Step 2. Configure an IP address for ECB service

Admin> service snmp ?
Full Name:
  SNMP service setting

Description:

Syntax:
  snmp -l   (Display the community setting)
  snmp -c <CommRO> <CommRW> <CommTrap> (Edit the community setting)
  snmp -p <TrapPort>   (Edit the snmp trap port)
  snmp -s   (Display the traphost entries)
  snmp -a <HostIP>   (Add the traphost entry)
  snmp -e <EntryIdx> <HostIP>   (Edit the traphost entry)
  snmp -d <EntryIdx>   (Delete the traphost entry)
  snmp -D   (Delete all the traphost entries)
  snmp on/off   (Turn on/off the SNMP service)

Parameters:
  <CommRO>   Octets string(maxlen=64)
  <CommRW>   Octets string(maxlen=64)
  <CommTRAP>   Octets string(maxlen=64)
  <TrapPort>   Integer(1..65535,default:162)
  <EntryIdx>   Integer(1..255)
  <HostIP>   IP Address

Use service *snmp -a <HostIP>* to setup an IP address for ECB service destination.