Parameters and Defaults

This section provides information on the parameters and defaults that you can use to create your own Cisco ATA configuration file. This section also includes the voice configuration menu code for each parameter that has such a code.

Some parameters on the Web Configuration screen are not used for H.323; only those used for H.323 are covered in this section.

Parameters are divided into categories based on their functionality. The following categories of parameters are covered in this section:

The following list contains general configuration information:

- Your configuration file must begin with **#txt**.
- The Cisco ATA uses the following parameter types:
  - Alphanumeric string
  - Array of short integers
  - Boolean (1 or 0)
  - Bitmap value—unsigned hexadecimal integer (for specifying bits in a 32-bit integer)
  - Extended IP address—IP address followed by port number (for example, 192.168.2.170.9001)
  - IP address (e.g. 192.168.2.170)
  - Integer (32-bit integer)
  - Numeric digit string

Note The term *Cisco ATA* is used throughout this manual to refer to both the Cisco ATA 186 and the Cisco ATA 188, unless differences between the Cisco ATA 186 and Cisco ATA 188 are explicitly stated.

Note This section contains recommended values for the United States and Sweden as configuration examples for certain parameters. For information about other countries, contact the Cisco equipment provider for a specific country.

Configuration Text File Template

This is a listing of the example_uprofile.txt text file, without its annotations, that comes bundled with the Cisco ATA software.

You can make a copy of this file and use it as a template for creating your own default configuration file or Cisco ATA-specific configuration file. For instructions on how to create these configuration files, see the "Creating Unique and Common Cisco ATA Configuration Files" section on page 3-8.

The example_uprofile.txt file contains all the Cisco ATA default values. The sections that follow this listing describe all the parameters in this file.

```
#txt
UIPassword:0
UseTftp:1
TftpURL:0
cfgInterval:3600
EncryptKey:0
ToConfig:0
upgradecode:0,0x301,0x0400,0x0200,0.0.0.0,69,0,none
upgradelang:0,0x301,0x0400,0x0200,0.0.0.0,69,0,none
Dhcp:1
StaticIp:0
StaticRoute:0
StaticNetMask:0
GkOrProxy:0
AltGk:0
AltGkTimeOut:0
GkTimeToLive:300
GateWay:0
GateWay2:0.0.0.0
UseLoginID:0
UID0:0
UID1:0
PWD0:0
PWD1:0
LoginID0:0
LoginID1:0
GkId:.
RxCodec:1
TxCodec:1
LBRCodec:0
AudioMode:0x00150015
NumTxFrames:2
CallWaitCallerId:0x003c33d0
Polarity: 0
ConnectMode:0x00060000
AutMethod:0
TimeZone:17
```

```
NTPIP:0
AltNTPIP:0
DNS1IP:0.0.0.0
DNS2IP:0.0.0.0
UDPTOS:0xA0
RingOnOffTime:2,4,25
DialTone:2,31538,30831,1380,1740,1,0,0,1500
BusyTone:2,30467,28959,1191,1513,0,4000,4000,0
ReorderTone:2,30467,28959,1191,1513,0,2000,2000,0
RingBackTone:2,30831,30467,1943,2111,0,16000,32000,0
CallWaitTone:1,30831,0,5493,0,0,2400,2400,4800
AlertTone:1,30467,0,5970,0,0,480,480,1920
DialPlan:*St4-|#St4-|911|1>#t8.r9t2-|0>#t811.rat4-|^1t4>#.-
IPDialPlan: 1
CallCmd:Af;AH;BS;NA;CS;NA;Df;EB;Ff;EP;Kf;EFh;HQ;Jf;AFh;HQ;I*67;gA*82;fA#90v#;OI;H#72v#;bA#
74v#;cA#75v#;dA#73;eA*67;gA*82;fA*70;iA*69;DA*99;xA;Uh;GQ;
SIPPort:5060
SIPRegOn:0
SIPRegInterval:120
MaxRedirect:5
OutBoundProxy:0
NatServer:0
NatTimer:0
NPrintf:0
TraceFlags:0x00000000
EchoIP:192.168.2.9
SigTimer:0x01418564
OpFlags:0x2
VLANSetting:0x0000002b
FeatureTimer:0x00000000
```

The sections that follow describe these parameters.

User Interface (UI) Parameter

This section contains only one parameter—UIPassword.

UIPassword

Description

This parameter controls access to web page or voice configuration menu interface. To set a password, enter a value other than zero. To have the user prompted for this password when attempting to perform a factory reset or upgrade using the voice configuration menu, see the "OpFlags" section on page 5-33.

To clear a password, change the value to 0.

You cannot recover a forgotten password unless you reset the entire configuration of the Cisco ATA (see the "Resetting the Cisco ATA to Factory Default Values" section on page 3-18). If you forget a password, you can contact your Cisco representative.

Note When UIPassword contains letters, you cannot enter the password from the telephone keypad.

Value Type

Alphanumeric string

Range

Maximum nine characters

Default

0

Voice Configuration Menu Access Code

7387277

Related Parameters

OpFlags, page 5-33—Bit 7

Configuration-Complete Parameter

This section contains only one parameter—ToConfig.

ToConfig

Description

After you configure the Cisco ATA, set the parameter to 0, or the Cisco ATA will unnecessarily contact the TFTP server.

Value Type

Boolean

Range

0 or 1

Default

1—This indicates that the operating parameters have not previously been set.

Voice Configuration Menu Access Code

80001

Parameters for Configuration Method and Encryption

This section describes parameters for instructing the Cisco ATA about how to locate its TFTP server and how to encrypt its configuration file:

- UseTFTP, page 5-5
- TftpURL, page 5-5
- CfgInterval, page 5-6
- EncryptKey, page 5-6

UseTFTP

Settings

1—Use the TFTP server for Cisco ATA configuration.

0—Do not use the TFTP server for Cisco ATA configuration.

Value Type

Boolean

Range

0 or 1

Default

1

Voice Configuration Menu Access Code

305

Related Parameters

- TftpURL, page 5-5
- EncryptKey, page 5-6
- OpFlags, page 5-33—bits 0 and 3
- CfgInterval, page 5-6

TftpURL

Description

Use this parameter to specify the IP address or URL of the TFTP server. This string is needed if the DHCP server does not provide the TFTP server IP address. When the TftpURL parameter is set to a non-zero value, this parameter has priority over the TFTP server IP address supplied by the DHCP server.

Optionally, you can include the path prefix to the TFTP file to download.

For example, if the TFTP server IP address is 192.168.2.170 or www.cisco.com, and the path to download the TFTP file is in /ata186, you can specify the URL as 192.168.2.170/ata186 or www.cisco.com/ata186.

Note From the voice configuration menu, you can only enter the IP address; from the web server, you can enter the actual URL.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

905

Related Parameters

- UseTFTP, page 5-5
- CfgInterval, page 5-6

CfgInterval

Description

Use this parameter to specify the number of seconds between each configuration update. The Cisco ATA will also upgrade its signaling image if it detects that the TFTP server contains an upgraded image.

For example, when using TFTP for configuration, the Cisco ATA contacts TFTP each time the interval expires to get its configuration file.

You can set CfgInterval to a random value to achieve random contact intervals from the Cisco ATA to the TFTP server.

Value Type

Decimal

Range

60 to 4294967295

Default

3600

Voice Configuration Menu Access Code

80002

Related Parameters

- UseTFTP, page 5-5
- TftpURL, page 5-5

EncryptKey

Description

This parameter specifies the encryption key that is used to encrypt the Cisco ATA configuration file on the TFTP server.

The cfgfmt tool, which is used to create a Cisco ATA binary configuration file (see the "Using the EncryptKey Parameter and cfgfmt Tool" section on page 3-11), automatically encrypts the binary file, using the rc4 encryption algorithm, when the EncryptKey parameter has a value other than 0.

Note If the Cisco ATA configuration file is not encrypted, the value must be set to 0.

Value Type

Alphanumeric string

Range

Maximum number of characters: 8

Default

0

Voice Configuration Menu Access Code

320

Related Parameters

- UseTFTP, page 5-5
- TftpURL, page 5-5

Network Parameters

This section describes the parameter for enabling or disabling the use of a DHCP server to obtain IP address information, and parameters that you need to statically configure if you disable DHCP:

- DHCP, page 5-7
- StaticIp, page 5-8
- StaticRoute, page 5-8
- StaticNetMask, page 5-9

DHCP

Description

A DHCP server can be used to automatically set the Cisco ATA IP address, the network route IP address, the subnet mask, DNS, NTP, TFTP, and other parameters.

- 1—Enable DHCP
- 0—Disable DHCP

Value Type

Boolean

Range

0 or 1

Default
1

Voice Configuration Menu Access Code
20

Related Parameters
- StaticIp, page 5-8
- StaticRoute, page 5-8
- StaticNetMask, page 5-9
- OpFlags, page 5-33—Bits 3 and 11

StaticIp

Description
Use this parameter to statically assign the Cisco ATA IP address if the DHCP parameter is set to 0.

Value Type
IP address

Default
0.0.0.0

Voice Configuration Menu Access Code
1

Related Parameters
- DHCP, page 5-7
- StaticRoute, page 5-8
- StaticNetMask, page 5-9

StaticRoute

Description
Use this parameter to statically assign the Cisco ATA route if the DHCP parameter is set to 0.

Value Type
IP address

Default
0.0.0.0

Voice Configuration Menu Access Code

2

Related Parameters

- DHCP, page 5-7
- StaticIp, page 5-8
- StaticNetMask, page 5-9

StaticNetMask

Description

Use this parameter to statically assign the Cisco ATA subnet mask if the DHCP parameter is set to 0

Value Type

IP address

Default

255.255.255.0

Voice Configuration Menu Access Code

10

Related Parameters

- DHCP, page 5-7
- StaticIp, page 5-8
- StaticRoute, page 5-8

Account Information Parameters

This section describes the following identification parameters:

- UID0, page 5-10
- PWD0, page 5-10
- UID1, page 5-11
- PWD1, page 5-12
- Gateway, page 5-12
- UseLoginID, page 5-13
- LoginID0, page 5-13
- LoginID1, page 5-14
- AutMethod, page 5-14

UID0

Description

This parameter is the User ID (E.164 phone number) for the **Phone 1** port. If the value is set to zero, the port will be disabled and no dial tone will sound.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

3

Related Parameters

- UID1, page 5-11
- PWD0, page 5-10
- PWD1, page 5-12
- UseLoginID, page 5-13
- LoginID0, page 5-13
- LoginID1, page 5-14

PWD0

Description

This parameter is the password for the **Phone 1** port.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

4

Related Parameters

- UID0, page 5-10
- UID1, page 5-11
- PWD1, page 5-12
- UseLoginID, page 5-13
- LoginID0, page 5-13
- LoginID1, page 5-14
- AutMethod, page 5-14

UID1

Description

This parameter is the User ID (E.164 phone number) for the **Phone 2** port. If the value is set to zero, the port will be disabled and no dial tone will sound.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

13

Related Parameters

- UID0, page 5-10
- PWD0, page 5-10
- PWD1, page 5-12
- UseLoginID, page 5-13
- LoginID0, page 5-13
- LoginID1, page 5-14

PWD1

Description

This parameter is the password for the **Phone 2** port.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

14

Related Parameters

- UID0, page 5-10
- UID1, page 5-11
- PWD0, page 5-10
- UseLoginID, page 5-13
- LoginID0, page 5-13
- LoginID1, page 5-14
- AutMethod, page 5-14

Gateway

Description

Use this parameter to specify the H.323 gateway IP address if the network does not contain an H.323 gatekeeper. In this scenario, all calls originating from the Cisco ATA will be directed to the gateway specified in this parameter.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

11

UseLoginID

Description

0—Use UID0 and UID1 as the authentication ID.

1—Use LoginID0 and LoginID1 as the authentication ID.

Value Type

Boolean

Range

0 or 1

Default

0

Voice Configuration Menu Access Code

93

LoginID0

Description

This parameter is the H.323 login ID for the **Phone 1** port of the Cisco ATA.

This value is used for registration and authentication if the UseLoginID parameter is set to 1.

If the LoginID0 and LoginID1 parameter values are identical, only one gatekeeper registration is performed for both ports, in which case the LoginID0 value is used as the H.323 ID, and the UID0 and UID1 parameter values are used for the two E.164 phone numbers.

Value Type

Alphanumeric string

Range

Maximum number of characters: 51

Default

0

Voice Configuration Menu Access Code

46

Related Parameters

- LoginID1, page 5-14
- PWD0, page 5-10
- PWD1, page 5-12
- UseLoginID, page 5-13
- AutMethod, page 5-14

LoginID1

Description

This parameter is the H.323 login ID for the **Phone 2** port of the Cisco ATA.

This value is used for registration and authentication if the UseLoginID parameter is set to 1.

If the LoginID0 and LoginID1 parameter values are identical, only one gatekeeper registration is performed for both ports, in which case the LoginID0 value is used as the H.323 ID, and the UID0 and UID1 parameter values are used for the two E.164 phone numbers.

Value Type

Alphanumeric string

Range

Maximum number of characters: 51

Default

0

Voice Configuration Menu Access Code

47

Related Parameters

- LoginID0, page 5-13
- PWD0, page 5-10
- PWD1, page 5-12
- UseLoginID, page 5-13
- AutMethod, page 5-14

AutMethod

Description

Use this parameter to select the desired authentication method, with the following possible values:

- 0—Do not use authentication (default)
- 1—Use Cisco registration-level security
- 2—Use Cisco administration-level security on a per-call basis

Value Type

Bitmap

Default

0x00000000

Voice Configuration Menu Access Code

92

Related Parameters

- LoginID0, page 5-13
- LoginID1, page 5-14
- PWD0, page 5-10
- PWD1, page 5-12
- NTPIP, page 5-30
- AltNTPIP, page 5-30

Gatekeeper Parameters

This section describes the following parameters that are related to H.323 gatekeeper configuration:

- GkOrProxy, page 5-15
- AltGk, page 5-16
- AltGkTimeOut, page 5-16
- GkTimeToLive, page 5-17
- GkId, page 5-17

GkOrProxy

Description

This parameter is the IP address of the primary H.323 gatekeeper.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0—Disables gatekeeper-routed calls.

Voice Configuration Menu Access Code

5

Related Parameters

- AltGk, page 5-16
- AltGkTimeOut, page 5-16
- GkTimeToLive, page 5-17
- GkId, page 5-17

AltGk

Description

You have the option of using this parameter to statically specify the IP address of an alternate H.323 gatekeeper.

Value Type

Alphanumeric string

Range

Maximum number of characters: 31

Default

0

Voice Configuration Menu Access Code

6

Related Parameter

AltGkTimeOut, page 5-16

AltGkTimeOut

Description

You can use this parameter to specify the timeout in seconds before the Cisco ATA fails back to the primary gatekeeper from the backup gatekeeper. When the Cisco ATA switches to a different H.323 gatekeeper, the setting of Bit 3 of the ConnectMode parameter (see the "ConnectMode" section on page 5-28) determines whether the Cisco ATA re-registers with the H.323 gatekeeper.

Value Type

Integer

Default

0—The Cisco ATA continues to use the backup gatekeeper until it fails before attempting to fail back to the primary gatekeeper.

Range

30 to 4294967295 seconds

Voice Configuration Menu Access Code

251

Related Parameters

- AltGk, page 5-16
- ConnectMode, page 5-28—Bit 3

GkTimeToLive

Description

This parameter specifies the “time to live” value that is used when the Cisco ATA registers with the H.323 gatekeeper. The registration is valid until the configured time expires.

Value Type

Integer

Default

0

Range

30 to 4294967295 seconds

Voice Configuration Menu Access Code

250

GkId

Description

This parameter is the identifier for the primary H.323 gatekeeper.

Value Type

Alphanumeric string

Default

. (not specified)

Range

Maximum 31 characters

Voice Configuration Menu Access Code

91

H.323 Mode Parameter

This section describes the UseSIP parameter, which is used to set the Cisco ATA to H.323 mode if you are using the H.323 signaling protocol.

UseSIP

Description

0—Use H.323 mode.

1—Use SIP mode.

Value Type

Boolean

Range

0 or 1

Default

0

Voice Configuration Menu Access Code

38

Operating Parameters

The parameters for configuring codecs, fax features and VLAN settings are included in this section:

- DNS2IP, page 5-31
- UDPTOS, page 5-31
- SigTimer, page 5-32
- OpFlags, page 5-33
- VLANSetting, page 5-34

MediaPort

Description

Use this parameter to specify the base port where the Cisco ATA transmits and receives RTP media. This parameter *must* be an even number. Each connection uses the next available even-numbered port for RTP.

Value Type

Integer

Range

1 to 65535

Default

16384

Voice Configuration Menu Access Code

202

Related Parameters

- UDPTOS, page 5-31
- VLANSetting, page 5-34

LBRCodec

Description

This parameter allows you to specify which low-bit-rate codecs are available. The Cisco ATA is capable of supporting two G.723.1 connections or one G.729 connection. When G.723.1 is selected as the low-bit-rate codec, each FXS port is allocated with one G.723.1 connection. When G.729 is selected, only one FXS port is capable of operating with the G.729 codec. The allocation of the G.729 resource to the FXS port is dynamic. The G.729 resource, if available, is allocated to an FXS port when a call is initiated or received; the resource is released when a call is completed.

The following values are valid:

- 0—Select G.723.1 as the low-bit-rate codec.
- 3—Select either G.729 as the low-bit-rate codec.

Related Parameters

- RxCodec, page 5-21
- TxCodec, page 5-22

Value Type

Integer

Range

0 or 3

Default

0

Voice Configuration Menu Access Code

300

Related Parameters

- AudioMode, page 5-20—Bits 1 and 17
- TxCodec, page 5-22
- RxCodec, page 5-21
- NumTxFrames, page 5-23

AudioMode

Description

This parameter represents the audio operating mode. The lower 16 bits are for the **Phone 1** port, and the upper 16 bits are for the **Phone 2** port. Table 5-1 on page 5-21 provides definitions for each bit.

Value Type

Bitmap

Default

0x00150015

Voice Configuration Menu Access Code

312

Related Parameters

- LBRCodec, page 5-19
- ConnectMode, page 5-28
- RxCodec, page 5-21

Table 5-1 AudioMode Parameter Bit Definitions

Bit Number	Definition
0 and 16	0/1—Disable/enable silence suppression for all audio codecs. Silence suppression is enabled by default.
1 and 17	0—Enable selected low-bit-rate codec in addition to G.711. This setting is the default. 1—Enable G.711 only.
2 and 18	0/1—Disable/enable fax CED tone detection. This feature is enabled by default.
3 and 19	Reserved.
4-5 and 20-21	DTMF Transmission Method: • 0—Always in-band. • 1—By negotiation. • 2—Always out-of-band. • 3—Reserved.
6-7 and 22-23	Hookflash Transmission Method: • 0—Disable sending OOB hookflash message. • 1—By negotiation (H.245 message). • 2—Always out-of-band (H.245 message). • 3—Use Q931message to send user keypad information for DTMF or hookflash transmission.
8-15 and 23-31	Reserved.

RxCodec

Description

Use this parameter to specify receiving-audio codec preference. The following values are valid:

- 0—G.723 (can be selected only if LBRCodec is set to 0)
- 1—G.711A-law
- 2—G.711µ-law
- 3—G.729A (can be selected only if LBRCodec is set to 3)

Value Type

Integer

Range

0-3

Default

2

Voice Configuration Menu Access Code

36

Related Parameters

- LBRCodec, page 5-19
- NumTxFrames, page 5-23
- TxCodec, page 5-22
- AudioMode, page 5-20

TxCodec

Description

Use this parameter to specify the transmitting-audio codec preference. The following values are valid:

- 0—G.723 (can be selected only if LBRCodec is set to 0)
- 1—G.711A-law
- 2—G.711µ-law
- 3—G.729A (can be selected only if LBRCodec is set to 3)

Value Type

Integer

Range

0-3

Default

2

Voice Configuration Menu Access Code

37

Related Parameters

- LBRCodec, page 5-19
- NumTxFrames, page 5-23
- RxCodec, page 5-21
- AudioMode, page 5-20

NumTxFrames

Description

Use this parameter to select the number of frames per packet that the Cisco ATA transmits:

- The frame size for each G.729 data packet is 10 ms.
- The frame size for each G.723 data packet is 30 ms.

Note The frame size for G.711 is fixed at 20 ms per packet and is not configurable.

Examples

- To obtain 60 ms of G.723 audio, set the parameter value to 2.
- To obtain 120 ms of G.723 audio, set the parameter value to 4.

Note Cisco recommends using the default value of 2.

Value Type

Integer

Range

1-6

Default

2

Voice Configuration Menu Access Code

35

Related Parameters

- LBRCodec, page 5-19
- RxCodec, page 5-21
- TxCodec, page 5-22

CallFeatures

Description

Disable/enable CallFeatures by setting each corresponding bit to 0 or 1.

The lower 16 bits are for the **Phone 1** port, and the upper 16 bits are for the **Phone 2** port. Table 5-2 provides definitions of each bit.

Note The subscribed features that can be permanently disabled by the user are CLIP_CLIR, call waiting and Fax mode. A subscribed service enable/disabled by the user can be disabled/enabled dynamically on a per-call basis.

Value Type

Bitmap

Default

0xffffffff

Voice Configuration Menu Access Code

314

Related Parameters

- PaidFeatures, page 5-25
- CallCmd, page 5-46
- CallerIdMethod, page 5-26

Table 5-2 CallFeatures Parameter Bit Definitions

Bit Number	Definition
0 and 16	Not used for H.323.
1 and 17	Not used for H.323.
2 and 18	Not used for H.323.
3 and 19	CLIP (if set to 1)/CLIR (if set to 0)
4 and 20	Call waiting
5 and 21	Three-way calling
6 and 22	Not used for H.323.
7 and 23	Not used for H.323.
8 and 24	Caller ID.
9 and 25	Not used for H.323.
10 and 26	Not used for H.323.
11 and 27	Call Waiting Caller ID.

Table 5-2 CallFeatures Parameter Bit Definitions (continued)

Bit Number	Definition
12-14 and 28-30	Reserved.
15 and 31	Fax mode. This service allows the user to set the Cisco ATA to Fax mode on a per-call basis.

PaidFeatures

Description

Unsubscribe/subscribe to CallFeatures by setting each corresponding bit to either 0 or 1. The lower 16 bits are for the **Phone 1** port, and the upper 16 bits are for the **Phone 2** port. Table 5-3 provides definitions of each bit.

Value Type

Bitmap

Default

0xffffffff

Voice Configuration Menu Access Code

315

Related Parameters

- CallFeatures, page 5-24
- CallCmd, page 5-46
- CallerIdMethod, page 5-26
- SigTimer, page 5-32

Table 5-3 PaidFeatures Parameter Bit Definitions

Bit Number	Definition
0 and 16	Not used for H.323.
1 and 17	Not used for H.323.
2 and 18	Not used for H.323.
3 and 19	CLIP (if set to 1)/CLIR (if set to 0)
4 and 20	Call waiting
5 and 21	Three-way calling
6 and 22	Not used for H.323.
7 and 23	Not used for H.323.
8 and 24	Caller ID.
9 and 25	Not used for H.323.

Table 5-3 PaidFeatures Parameter Bit Definitions (continued)

Bit Number	Definition
10 and 26	Not used for H.323.
11 and 27	Call Waiting Caller ID.
12-14 and 28-30	Reserved.
15 and 31	Fax mode. This service allows the user to set the Cisco ATA to Fax mode on a per-call basis.

CallerIdMethod

Description

This 32-bit parameter specifies the signal format to use for both FXS ports for generating Caller ID format. Possible values are:

- Bits 0-1 (method)—0=Bellcore (FSK), 1=DTMF, values 2 and 3 are reserved.

If *method=0*, set the following bits:

- Bit 2—Reserved.
- Bit 3 to 8—Maximum number of digits in phone number (valid values are 1 to 20; default is 12)
- Bit 9 to 14—Maximum number of characters in name (valid values are 1 to 20; default is 15)
- Bit 15—If this bit is enabled (it is by default), send special character **O** (out of area) to CID device if the phone number is unknown.
- Bit 16—If this bit is enabled (it is by default), send special character **P** (private) to CID device if the phone number is restricted.
- Bits 17 to 27—Reserved.

If *method=1*, set the following bits:

- Bits 3-6—Start digit for known numbers (valid values are **12** for “A,” **13** for “B,” **14** for “C,” and **15** for “D.”)
- Bits 7-10—End digit for known numbers (valid values are **11** for “#,” **12** for “A,” **13** for “B,” **14** for “C,” and **15** for “D.”)
- Bits 11—Polarity reversal before and after Caller ID signal (value of 0/1 disables/enables polarity reversal)
- Bits 12-16—Maximum number of digits in phone number (valid values are 1 to 20)
- Bits 17 to 19—Start digit for unknown or restricted numbers (valid values are **4** for “A,” **5** for “B,” **6** for “C,” and **7** for “D.”)
- Bits 20 to 22—End digit for unknown or restricted numbers (valid values are **3** for “#,” **4** for “A,” **5** for “B,” **6** for “C,” and **7** for “D.”)
- Bits 23 to 24—Code to send to the CID device if the number is unknown (valid values are **0** for “00,” **1** for “0000000000,” and **2** for “2.” **3** is reserved and should not be used.
- Bits 25 to 26—Code to send to the CID device if the number is restricted (valid values are **0** for “10,” and **1** for “1.” **2** and **3** are reserved and should not be used.
- Bits 27 to 31—Reserved.

Examples

The following examples are recommended values for the CallerID Method parameter:

- USA=0x19e60
- Sweden=0x0ff61 or 0x006aff61
- Denmark=0x0fde1 or 0x033efde1

Value Type

Bitmap

Default

0x00019e60

Voice Configuration Menu Access Code

316

Polarity

Description

You can control line polarity of the Cisco ATA FXS ports when a call is connected or disconnected by configuring the Polarity bitmap parameter as follows:

- Bit 0: CALLER_CONNECT_POLARITY. Polarity to use when the Cisco ATA is the caller and the call is connected.
  - 0 =Use forward polarity (Default)
  - 1 =Use reverse polarity
- Bit 1: CALLER_DISCONNECT_POLARITY. Polarity to use when the Cisco ATA is the caller and the call is disconnected.
  - 0 =Use forward polarity (Default)
  - 1 =Use reverse polarity
- Bit 2: CALLEE_CONNECT_POLARITY. Polarity to use when the Cisco ATA is the callee and the call is connected.
  - 0 =Use forward polarity (Default)
  - 1 =Use reverse polarity
- Bit 3: CALLEE_DISCONNECT_POLARITY. Polarity to use when the Cisco ATA is the callee and the call is disconnected.
  - 0 =Use forward polarity (Default)
  - 1 =Use reverse polarity

Note Bits 4-31 are reserved.

Value Type

Bitmap

Default

0x00000000

Voice Configuration Menu Access Code

304

ConnectMode

Description

This parameter is a 32-bit bitmap used to control the connection mode of the selected call signaling protocol. Table 5-4 on page 5-28 provides bit definitions for this parameter.

Value Type

Bitmap

Default

0x00060400

Voice Configuration Menu Access Code

311

Table 5-4 ConnectMode Parameter Bit Definitions

Bit Number	Definition
0	0—Use slow-start procedure (for H.225/Q.931 and H.245). 1—Use fast-start procedure (for H.225/Q.931).
1	0/1—Disable/enable h245 tunneling.
2	0—Use the dynamic payload type 126/127 as the RTP payload type (fax pass-through mode) for G.711 µ-law/G.711 A-law. 1—Use the standard payload type 0/8 as the RTP payload type (fax pass-through mode) for G.711 µ-law/G.711 A-law.
3	0—Do not perform full gatekeeper registration when the Cisco ATA switches to an alternate H.323 gatekeeper. 1—Perform full gatekeeper registration when the Cisco ATA switches to an alternate H.323 gatekeeper.
4	0—Denotes a non-Cisco CallManager environment. 1—Enable the Cisco ATA to operate in a Cisco CallManager environment.
5	0/1—Enable/disable two-way cut-through of voice path before the Cisco ATA receives the CONNECT message.
6	0/1—Disable/enable using the Progress Indicator to determine if ringback is supplied by the far end with RTP.
7	0/1—Disable/enable fax pass-through redundancy.
8-12	Specifies the fax pass-through NSE payload type. The value is the offset to the NSE payload base number of 96. The valid range is 0-23; the default is 4. For example, if the offset is 4, the NSE payload type is 100.

Table 5-4 ConnectMode Parameter Bit Definitions (continued)

Bit Number	Definition
13	0—Use G.711µ-law for fax pass-through codec. 1—Use G.711A-law for fax pass-through codec.
14-15	0—Use fax pass-through. 1—Use codec negotiation in sending fax. 2—Reserved. 3—Reserved.
16—18	Not used for H.323.
19	0—Disable sending ringback tone to the caller. 1—Enable sending ringback tone to the caller.
20-22	Not used by H.323.
23	0—Do not allow the end-user to configure the permanent default call-waiting setting for every call. Instead, use the service provider's default call-waiting setting for every call. 1—Allows the end-user to configure the permanent default call-waiting setting for every call, and override the service provider's default call-waiting setting.
24	0/1—Disable/enable the mixing of audio and call waiting tone during a call.
25	Not used for H.323.
26 to 31	Reserved.

TimeZone

Description

This parameter is the timezone offset from Greenwich Mean Time (GMT) for time-stamping incoming calls with local time (to use for Caller ID display, for example).

Local time is generated by the following formula:

- Local Time=GMT + TimeZone, if TimeZone <= 12
- Local Time=GMT + TimeZone - 25, if TimeZone > 12

Value Type

Integer

Range

0-24

Default

17

Voice Configuration Menu Access Code

302

Related Parameters

- NTPIP, page 5-30
- AltNTPIP, page 5-30

NTPIP

Description

This parameter is the NTP IP address, required if DHCP server does not provide one.

The Cisco ATA requires an NTP Server from which to obtain Coordinated Universal Time (UTC) to time-stamp incoming calls (H.323 and SIP) to drive an external Caller-ID device.

DHCP may also supply a NTP server. If NTPIP is specified, it overwrites the value supplied by DHCP. NTPIP is ignored if its value is 0 or 0.0.0.0.

The user *must not* specify a port parameter. The Cisco ATA uses the default NTP port only.

Value Type

IP address

Default

0.0.0.0

Voice Configuration Menu Access Code

141

Related Parameters

- AltNTPIP, page 5-30
- TimeZone, page 5-29

AltNTPIP

Description

This parameter is the alternate NTP IP address, if you want redundancy. You can set this parameter to 0 or point to the same NTPIP if only one NTP server exists.

Value Type

IP address

Default

0.0.0.0

Voice Configuration Menu Access Code

142

Related Parameters

- NTPIP, page 5-30
- TimeZone, page 5-29

DNS1IP

Description

This parameter is the primary domain name server (DNS) IP address, if the DHCP server does not provide one. If DHCP provides DNS, DNS1IP and DNS2IP (if they are non-zero) overwrite the DHCP-supplied values. The user *must not* specify a port parameter. The Cisco ATA uses the default DNS port only.

Value Type

IP address

Default

0.0.0.0

Voice Configuration Menu Access Code

916

DNS2IP

Description

This parameter is the secondary domain name server (DNS) IP address, if the DHCP server does not provide one. If DHCP provides DNS, DNS1IP and DNS2IP (if they are non-zero) overwrite the DHCP-supplied values. The user *must not* specify a port parameter. The Cisco ATA uses the default DNS port only.

Value Type

IP address

Default

0.0.0.0

Voice Configuration Menu Access Code

917

UDPTOS

Description

This parameter specifies the IP precedence (ToS bit) of UDP packets. Set the lower eight bits only, as follows:

- Bits 0-1: Unused
- Bit 2: Reliability bit—1=request high reliability

- Bit 3: Throughput bit—1=request high throughput
- Bit 4: Delay bit—1=request low delay
- Bits 5-7: Specify datagram precedence. Values range from 0 (normal precedence) to 7 (network control).

Value Type

Bitmap

Default

0xB8

Voice Configuration Menu Access Code

255

SigTimer

Description

This parameter controls various timeout values. Table 5-5 on page 5-32 contains bit definitions of this parameter.

Value Type

Bitmap

Default

0x01418564

Voice Configuration Menu Access Code

318

Table 5-5 SigTimer Parameter Bit Definitions

Bit Number	Definition
0-7	Call waiting period—The period between each burst of call-waiting tone. Range: 0 to 255 in 0.1 seconds Default: 100 (0x64=100 seconds)
8-13	Reorder delay—The delay in playing the reorder (fast busy) tone after the far-end caller hangs up. Range: 0 to 62 in seconds Default—5 (seconds) 63—Never play the reorder tone.
14-19	Ring timeout—When a call is not answered, this is the amount of time after which Cisco ATA rejects the incoming call. Range—0 to 63 in 10 seconds Default—6 (60 seconds) 0—Never times out

Table 5-5 SigTimer Parameter Bit Definitions (continued)

Bit Number	Definition
20-25	Not used by H.323.
26-27	Minimum hook flash time—The minimum on-hook time required for hook flash event. Range: 0 to 3 Default: 0 (60 ms) Other possible values: 1=100 ms, 2=200 ms, 3=300 ms.
28-31	Maximum hook flash time—The maximum on-hook time allowed for hook flash event. Range: 0 to 15 Default: 0 (1000 ms) Other possible values: 1=100 ms, 2=200 ms, 3=300 ms, 4=400 ms, 5=500 ms, 6=600 ms, 7=700 ms, 8=800 ms, 9=900 ms, 10=1000 ms, 11=1100 ms, 12=1200 ms, 13=1300 ms, 14=1400 ms, 15=1500 ms.

OpFlags

Description

This parameter enables/disables various operational features.

See Table 5-6 on page 5-33 for bit definitions of this parameter.

Value Type

Bitmap

Default

0x2

Voice Configuration Menu Access Code

323

Related Parameters

- TftpURL, page 5-5
- DHCP, page 5-7
- VLANSetting, page 5-34

Table 5-6 OpFlags Parameter Operational Features to Turn On or Off

Bit Number	Definition
0	If Bit 0 = 0, the TFTP configuration filename supplied by the DHCP server overwrites the default filename for each Cisco ATA. If Bit 0 = 1, the default Cisco ATA filename is always used.
1	If Bit 1 = 0, the Cisco ATA probes the static network router during the power-up process. If Bit 1 = 1, static network router probing is disabled.
2	Reserved.

Table 5-6 OpFlags Parameter Operational Features to Turn On or Off (continued)

Bit Number	Definition
3	If Bit 3=1, the Cisco ATA does not request DHCP option 150 in the DHCP discovery message; some DHCP server do not respond if option 150 is requested.
4	If Bit 4 = 1, the Cisco ATA use the VLAN ID specified in the VLANSetting parameter for VLAN IP encapsulation (see the "VLANSetting" section on page 5-34).
5	If Bit 5=1, the Cisco ATA does not use VLAN IP encapsulation.
6	If Bit 6=1, the Cisco ATA does not perform CDP discovery.
7	If Bit 7=1, the Cisco ATA does not allow web configuration. Once the web server is disabled, you must configure the Cisco ATA with the TFTP or voice configuration menu methods. **Examples** 1. If the existing OpFlags value is 0x2, select menu option 323 from the voice configuration menu and enter the value 130 (0x82). This disables web configuration. If you later attempt to access the Cisco ATA web configuration page, the following error messages will be displayed. – `Netscape: The document contained no data. Try again later, or contact the server's administrator.` – `Internet Explorer: The page cannot be displayed.` 2. If the existing OpFlags value is 0x82, select menu option 323 from the voice configuration menu and enter the value 2 (0x2). This disables web configuration.
8	If Bit 8=1, the Cisco ATA does not allow HTTP refresh access with the http://ip/refresh command.
9	If Bit 9=1, the Cisco ATA does not allow HTTP reset access with the http://ip/reset command.
10	Reserved.
11	If Bit 11=0, the Cisco ATA requests the device hostname from the DHCP server. If Bit 11=1, the Cisco ATA uses the device hostname that is specified in DHCP option 12.
12-13	Reserved.
14-27	Reserved.
28-31	To configure the Cisco ATA to prompt the user for the UIPassword when the user attempts to perform a factory reset or upgrade using the voice configuration menu, configure bits 28 to 31 with the value of 6. Any other value for these bits means that the Cisco ATA will not prompt the user for the UIPassword in these cases.

VLANSetting

Description

This parameter is for firmware version 2.15 and 2.14ms, and above.

Bitmap definitions are as follows for the VLANSetting parameter:

- Bits 0-2—Specify VLAN CoS bit value (802.1P priority) for TCP packets.
- Bits 3-5—Specify VLAN CoS bit value (802.1P priority) for UDP packets.
- Bits 6-17—Reserved.

- Bits 18-29—User-specified 802.1Q VLAN ID.
- Bits 30-31—Reserved.

Value Type

Bitmap

Default

0x0000002b

Voice Configuration Menu Access Code

324

Related Parameter

OpFlags, page 5-33

Optional Feature Parameters

This section includes the parameters used to configure various timeout values and call-progress tones:

NPrintf

Description

Use this parameter to specify the IP address and port of a host to which all Cisco ATA debug messages are sent. The program *prserv.exe*, which comes bundled with the Cisco ATA software, is needed to capture the debug information.

Syntax

```
<HOST_IP>,<HOST_PORT>
```

Example

If the program *prserv.exe* is running on a host with IP address 192.168.2.170 and listening port 9001, set NPrintf to 192.168.2.170.9001. This causes the Cisco ATA to send all debug traces to that IP address.

Value Type

Extended IP address

Default

0

Voice Configuration Menu Access Code

81

RingOnOffTime

Description

This parameter specifies the ringer cadence pattern, expressed as a triplet of integers “a,b, and c”.

- a—Number of seconds to turn the ring ON.
- b—Number of seconds to turn the ring OFF.
- c—The ring frequency, fixed at 25.

Value Type

List of three integer values, separated by commas

Range

1-65535

Default

2, 4, 25

Recommended Values:

- United States —2,4,25
- Sweden — 1,5,25

Voice Configuration Menu Access Code

929

IPDialPlan

Description

This parameter allows for detection of IP-like destination address in DialPlan. Three values are valid:

- 0—String is dialed as is and not treated as an IP address.
- 1—When the Cisco ATA detects two asterisks (**), IPDialPlan takes over. The user enters the pound (#) key to terminate the digit collection, and the interdigit timeout default is not used.
- 2—When IPDialPlan is set to 2, three asterisks (***) are required for IPDialPlan to take effect.

All other values are currently undefined.

Value Type

Integer

Range

0, 1 or 2

Default

1

Voice Configuration Menu Access Code

310

DialPlan

Description

The programmable dial plan is designed for the service provider to customize the behavior of the Cisco ATA for collecting and sending dialed digits. The dial plan allows the Cisco ATA user to specify the events that trigger the sending of dialed digits. These events include the following:

- The termination character has been entered.
- The specified dial string pattern has been accumulated.
- The specified number of dialed digits has been accumulated.
- The specified inter-digit timer has expired.

Value Type

Alphanumeric string

Range

Maximum number of characters is 199.

Default

*St4-|#St4-|911|1>#t8.r9t2-|0>#t811.rat4-|^1t4>#.-

Voice Configuration Menu Access Code

926

Additional DialPlan Information

The DialPlan section contains the following additional topics that describe commands and rules for creating your own dial plan:

- About Dial Plan Commands, page 5-38
- Dial Plan Blocking (In Rule), page 5-39
- 'H' Rule to Support Hotline/Warmline, page 5-40
- 'P' Rule to Support Dial Prefix, page 5-40

About Dial Plan Commands

The following list contains rules for Cisco ATA dial plans:

- **.** —Wildcard, match any digit entered.
- **-** —Additional digits can be entered. This command can be used only at the end of a dial plan rule (for example, 1408t5- is legal usage of the - command, but 1408t5-3... is illegal).
- >#—Defines the # character as a termination character. When the termination character is entered, the dial string is automatically sent. The termination character can be entered only after at least one user-entered digit matches a dial plan rule. Alternatively, the command **>*** can be used to define ***** as the termination character.
- tn— Defines the timeout value **n**, in the unit of seconds, for the interdigit timer. Valid values are 0-9 and a-z, where a-z indicates a range of 10 to 36.
- rn—Repeat the last pattern n times, where **n** is 0-9 or a-z. The values a-z indicate a range of 10 to 36. Use the repeat modifier to specify more rules in less space.

Note The commands **>#** and **tn** are modifiers, not patterns, and are ignored by the **rn** command.

- |—Used to separate multiple dial plan rules.
- ^—Logical not. Match any character except the character immediately following the ^ command.
- S—Seize rule matching. If a dial plan rule matches the sequence of digits entered by the user to this point, and the modifier S is the next command in the dial plan rule, all other rules are negated for the remainder of the call (for example, a dial plan beginning with ***S** will be the only one in effect if the user first enters the ***** key).

Note All rules apply in the order listed (whichever rule is completely matched first will immediately send the dial string).

Note No syntax check is performed by the actual implementation. The administrator has the responsibility of making sure that the dial plan is syntactically valid.

Dial Plan Example 1 (Default Dial Plan)

The following dial plan:

```
*St4-|#St4-|911|1>#t8.r9t2-|0>#t811.rat4-|^1t4>#.-
```

consists of the following rules:

- *St4-—If the first digit entered is *****, all other dial plan rules are voided. Additional digits can be entered after the initial ***** digit, and the timeout before automatic dial string send is four seconds.
- #St4—Same as above, except with # as the initial digit entered.
- 911—If the dial string 911 is entered, send it immediately.
- 1>#t8.r9t2—If the first digit entered is 1, the timeout before automatic send is eight seconds. The terminating character **#** can be entered at any time to manually send the dial string. After the 11th digit is entered, the timeout before an automatic send changes to two seconds. The user can enter more digits until the dial string is sent by the timeout or by the user entering the # character.

- 0>#t811.rat4—If the first digit entered is 0, the timeout before automatic send is eight seconds, and the terminating character # can be entered at any time to manually send the dial string. If the first three digits entered are 011, then, after an additional 11 digits are entered, the timeout before an automatic send changes to four seconds. The user can enter more digits until the dial string is sent by the timeout or by the user entering the # character.
- ^1t4>#.—If the first digit entered is anything other than 1, the timeout before an automatic send is four seconds. The terminating character # can be entered at any time to manually send the dial string. The user can enter more digits until the dial string is sent by the timeout or by the user entering the # character.

Dial Plan Example 2

The following dial plans:

```
.t7>#......t4-|911|1t7>#..........t1-|0t4>#.t7-
```

or

```
.t7>#r6t4-|911|1t7>#.r9t1-|0t4>#.t7-
```

consist of the following rules:

- **.t7>#r6t4-**—You must enter at least one digit. After the first digit is entered and matched by the dial plan, the timeout before an automatic send is seven seconds, and the terminating character # can be entered at any time to manually send the dial string. After seven digits are entered, the timeout before an automatic send changes to two seconds. The **- symbol** at the end of the rule allows further digits to be entered until the dial string is sent by the timeout or the user entering the # character.
- **911**—If the dial string 911 is entered, send this string immediately.
- **1t7>#.r9t1**—If the first digit entered is 1, the timeout before an automatic send is seven seconds, and the terminating character # can be entered at any time to manually send the dial string. After the 11th digit is entered, the timeout before an automatic send changes to one second. The user can enter more digits until the dial string is sent by the timeout or by the user entering the # character.
- **0t4>#.t7**—If the first digit entered is 0, the timeout before an automatic send is four seconds, and the terminating character # can be entered at any time to manually send the dial string. After the second digit is entered, the timeout before an automatic send changes to seven seconds. The user can enter more digits until the dial string is sent by the timeout or by the user entering the # character.

Dial Plan Blocking (I*n* Rule)

Dial plan blocking can be used to reduce the occurrences of invalid dialed digits being sent and can prevent the dialed string of a specified pattern from being sent. By adding dial plan blocking, dialed digits are discarded after the interdigit timer expires unless one of the specified matching rules is met.

In addition, the default nine-second global interdigit timeout value is also modified with the value specified in the dial plan blocking command:

I*n*

where n specifies the global interdigit timeout and the valid values are 1-9 and a-z (10-35).

For example, to enter an interdigit timeout of 12 seconds and discard dialed digits unless 911 is entered, you would use the following command:

I*c*| 911

Specifying your own interdigit timeout also changes the behavior of the dial plan so that the entire dial string, rather than being sent at timeout, is sent only as a result of a matching rule or time intended by a matching rule.

'H' Rule to Support Hotline/Warmline

Hotline/Warmline, also known as Private Line Automatic Ringdown (PLAR), is a line used for priority telephone service. If the Hotline feature is configured, the Cisco ATA immediately dials a pre-configured number as soon as the handset goes off hook. If the Warmline feature is configured, the Cisco ATA dials a pre-configured number if no digits were entered before the specified timer value expired when the handset went off hook.

Syntax

H*dnnnn*

where **d** is a delay-in-seconds parameter 0-9,a-z (to support 0 to 35 seconds delay), and **nnnn** is the variable-length phone number to call when no digits are entered for **d** seconds after the handset goes off hook.

- Example 1: **H05551212** (Hotline configuration; the Cisco ATA immediately dials 555-1212 when the handset goes off hook.)
- Example 2: **H55551212** (Warmline configuration; the Cisco ATA waits for five seconds and dials 555-1212 if no digits were entered when the handset went off hook.)

'P' Rule to Support Dial Prefix

This rule is for automatic pre-pending the dial string as entered by the user with a specified prefix.

Syntax

P*tnnnn*

where **t** is a single leading trigger character; if **t** is the *first* entered digit when making a new call, it triggers the prepending of a variable-length prefix (as specified by **nnnn**) in the dial string. The **t** character can take one of the following values:

0-9,*,#, 'n' (= any of 1-9), 'N' (any of 'n' and 0), 'a' (any of 'n',* and #), or 'A' (any of 'a' and 0);

Example:

Pn12345: Prepends 12345 to the dial string when the first entered digit is any of 1-9. The triggered digit is not removed from the dial string.

Call-Progress Tone Parameters

This section contains the following topics:

List of Call-Progress Tone Parameters

The following list contains the names of the call-progress tone parameters:

- DialTone
- BusyTone
- ReorderTone
- RingBackTone
- CallWaitTone
- AlertTone

Tone Parameter Syntax

Each tone is specified by nine integers, as follows:

ntone, freq0, freq1, level0, level1, steady, on-time, off-time, total-tone-time

- **ntone** is the number of frequency components (0, 1 or 2).
- **freq[0]** (Hz) is the transformed frequency of the first frequency component (-32768 to 32767).

Note Only positive values can be configured to the Cisco ATA 186. For negative values, use the 16-bit 2's-complement value. For example, enter -1 as 65535 or 0xffff.

- **freq[1]** is the transformed frequency of the second frequency component (-32768 to 32767).
- **level[0]** is the transformed amplitude of the first frequency component (-32768 to 32767).
- **level[1]** is the transformed amplitude of the second frequency component (-32768 to 32767).
- **steady** controls whether the tone is constant or intermittent. A value of 1 indicates a steady tone and causes the Cisco ATA to ignore the on-time and off-time parameters. A value of 0 indicates an on/off tone pattern and causes the Cisco ATA to use the on-time and off-time parameters.
- **on-time** controls the length of time the tone is heard in milliseconds (ms) expressed as an integer from 0 to 0xffff sample at 8000 samples/second.

- **off-time** controls the length of time between audible tones in milliseconds (ms) expressed as an integer from 0 to 0xffff sample at 8000 samples/second.
- **total-tone-time** controls the length of time the tone is audible (0 to 0xffff). If this value is set to 0, the tone will play until another call event stops the tone. For DialTone, BusyTone, ReorderTone, and RingBackTone, the configurable value is the number of 10 ms (100 = 1 second) units.

  For the other tones, the value is the number of samples at 8000 samples/second, where the following information applies:

  – Frequency ranges from 0 to 4000 (Hz)

  – Transformed Frequency = 32767 · cos (2pi·Frequency/8000)

  – Amplitude ranges from 0 to 32767

  – Transformed Amplitude = *A* · 32767 · sin (2pi·Frequency/8000)

  The scaling factor *A* determines the volume level of the tone. To calculate scaling factors, see the "How to Calculate Scaling Factors" section on page 5-42.

Note All tones are persistent (until the Cisco ATA changes state) except for the call-waiting tone and the confirm tone. The call-waiting tone, however, repeats automatically once every 10 seconds while the call-waiting condition exists.

How to Calculate Scaling Factors

Use the following formula to calculate the scaling factor *A*:

$A=0.5 * 10^{((k+10-(n-1)*3)/20)}$

In this formula, *k* is the desirable volume in dBm; *n* is the number of frequency components. The ^ symbol means *to the order of.*

Example

If a one-frequency component of -20 dBm volume level is desirable, then:

$A=0.5 * 10^{((-20+10)/20)} = 0.16$

Recommended Values

The following settings are recommended for the US:

- DialTone = "2,31538,30831,3100,3885,1,0,0,1000" (approximately -10 dBm)
- BusyTone = "2,30467,28959,1191,1513,0,4000,4000,0" (approximately -21 dBm)
- ReorderTone = "2,30467,28959,1191,1513,0,2000,2000,0" (approximately -21 dBm)
- RingBackTone = "2,30831,30467,1943,2111,0,16000,32000,0" (approximately -16 dBm)
- CallWaitTone = "1,30831,0,5493,0,0,2400,2400,4800" (approximately -10 dBm)
- AlertTone = "1,30467,0,5970,0,0,480,480,1920" (approximately -10 dBm)

The following settings are recommended for Sweden:

- DialTone = "1,30959,0,4253,0, 1, 0, 0,1500" (approximately -5 dBm)
- BusyTone = "1,30959,0,2392,0, 0, 2000, 2000,0" (approximately -10 dBm)
- ReorderTone = "1,30959,0,2392,0, 0, 2000, 6000,0" (approximately -10 dBm)
- RingBackTone = "1,30959,0,2392,0, 0, 8000, 40000,0" (approximately -10 dBm)
- CallWaitTone = "1,30959,0,2392,0, 0, 1600, 4000,11200" (approximately -10 dBm)
- AlertTone = "1,30959,0,2392,0, 0, 480, 480,1920" (approximately -10 dBm)

Specific Call-Progress Tone Parameter Information

Brief descriptions, and lists of default values and the voice configuration menu code for each Cisco ATA tone parameter, are described in the following sections:

- DialTone, page 5-43
- BusyTone, page 5-44
- ReorderTone, page 5-44
- RingbackTone, page 5-45
- CallWaitTone, page 5-45
- AlertTone, page 5-46

DialTone

Description

The Cisco ATA plays the dial tone when it is ready to accept the first digit of a remote address to make an outgoing call.

Default values for the nine-integer array

- ntone—2
- freq0—31538
- freq1—30831
- level0—1380
- level1—1740
- steady—1
- on-time—0
- off-time—0
- total time to play tone—1000

Voice Configuration Menu Access Code

920

BusyTone

Description

The Cisco ATA plays the busy tone when the callee is busy.

Default values for the nine-integer array

- ntone—2
- freq0—30467
- freq1—28959
- level0—1191
- level1—1513
- steady—0
- on-time—4000
- off-time—4000
- total time to play tone—0

Voice Configuration Menu Access Code

921

ReorderTone

Description

The Cisco ATA plays the reorder tone (also known as congestion tone) if the outgoing call failed for reasons other than busy.

Default values for the nine-integer array

- ntone—2
- freq0—30467
- freq1—28959
- level0—1191
- level1—1513
- steady—0
- on-time—2000
- off-time—2000
- total time to play tone—0

Voice Configuration Menu Access Code

922

RingbackTone

Description

The Cisco ATA plays the ring-back tone when the callee is being alerted by the called device.

Default values for the nine-integer array

- ntone—2
- freq0—30831
- freq1—30467
- level0—1943
- level1—2111
- steady—0
- on-time—16000
- off-time—32000
- total time to play tone—0

Voice Configuration Menu Access Code

923

CallWaitTone

Description

The Cisco ATA plays the call-waiting tone when an incoming call arrives while the user is connected to another party.

Default values for the nine-integer array

- ntone—1
- freq0—30831
- freq1—0
- level0—5493
- level1—0
- steady—0
- on-time—2400
- off-time—2400
- total time to play tone—4800

Voice Configuration Menu Access Code

924

AlertTone

Description

The Cisco ATA plays the alert tone to prompt the user to enter a phone number when invoking a supplementary service, such as call-forwarding, or blind transfer.

Default values for the nine-integer array

- ntone—1
- freq0—30467
- freq1—0
- level0—5970
- level1—0
- steady—0
- on-time—480
- off-time—480
- total time to play tone—1920

Voice Configuration Menu Access Code

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CallCmd

Description

Command table that controls call commands such as turning on/off caller ID.

For detailed information on the CallCmd parameter, see Chapter 6, “Call Commands.”

Value Type

Alphanumeric string

Range

Maximum of 248 characters

Default

- US command table:

  CallCmd:Af;AH;BS;NA;CS;NA;Df;EB;Ff;EP;Kf;EFh;HQ;Jf;AFh;HQ;I*67;gA*82;fA#90v#;OI;H#72v#;bA#74v#;cA#75v#;dA#73;eA*67;gA*82;fA*70;iA*69;DA*99;xA;Uh;GQ;

- Sweden command table:

  CallCmd:BS;NA;CS;NA;Df;EB;Ff0;ARf1;HPf2;EPf3;AP;Kf1;HFf2;EFf3;AFf4;HQ;Jf1;HFf2;EFf3;AFf4;HQ;Af4;HQ;I*31#;gA#31#;gA*90*v#;OI;H*21*v#;bA*61*v#;dA*67*v#;cA#21#;eA#61#;eA#67#;eA*31#;gA#31#;gA*43#;hA#43#;iA*69#;DA*99#;xA

Voice Configuration Menu Access Code

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Related Parameters

- CallFeatures, page 5-24
- PaidFeatures, page 5-25
- CallerIdMethod, page 5-26
- SigTimer, page 5-32