



Malicious Caller Identification Invocation Support for Enterprise Networks

The Malicious Caller Identification (MCID) Invocation Support for Enterprise Networks feature enables Cisco voice gateways to support MCID service in the PSTN. The recipient of a malicious call invokes MCID by pressing a configurable sequence of dual tone multifrequency (DTMF) digits on the telephone, which trigger a Tool Command Language (TCL) interactive voice response (IVR) script. The script initiates the MCID process resulting in the calling number information being forwarded to a law enforcement agency. This feature is supported in both H.323 and Session Initiation Protocol (SIP) voice gateways and on all telephones.

Feature History for MCID Invocation Support for Enterprise Networks

Release	Modification
12.2(15)T	This feature was introduced.
12.3(14)T	Support was added for the new Cisco IOS command structure for voice applications in the HTTP Client API for TCL IVR feature.

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at <http://www.cisco.com/go/fn>. You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click **Cancel** at the login dialog box and follow the instructions that appear.

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Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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- [Additional References, page 16](#)
- [Command Reference, page 17](#)

Prerequisites for MCID Invocation Support for Enterprise Networks

Enterprise Network

All telephones in the enterprise network must generate DTMF tones to invoke the MCID functionality.

PSTN Network

The service provider on the time-division multiplexing (TDM) side of the PSTN must have MCID functionality configured and enabled.

ISDN

The ISDN interface on the Cisco gateway must use the NET5 switch type and it must be configured to operate in user-side mode. See the **isdn switch-type** and **isdn protocol-emulate** commands in the *Cisco IOS Dial Technologies Command Reference, Release 12.3T*.

TCL IVR

- Hardware platform must support TCL IVR 2.0.
- You must either use the script `app_mcid.2.0.0.40.tcl` or a later version, or write your own TCL IVR 2.0 script that implements MCID.
 - To download the script, go to the Software Download web site at <http://www.cisco.com/cgi-bin/tablebuild.pl/tclware>.



Note You must have a Cisco.com login to access this site. Qualified users can establish an account on Cisco.com by following the directions at <http://www.cisco.com/register>. If you have forgotten or lost your account information, send a blank e-mail to `cco-locksmith@cisco.com`. An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you.

- To write your own script, see the *Tcl IVR API Version 2.0 Programming Guide*.
- If an MCID service log in RADIUS is required, you can write a script that supports the RADIUS service and uses the **aaa accounting update** command to generate an accounting record.

Restrictions for MCID Invocation Support for Enterprise Networks

- MCID functionality is configurable only at the ISDN interface level.
- MCID cannot be invoked if the calling party is within the enterprise network.
- The results of any MCID invocation are not recorded by a Simple Network Management Protocol (SNMP) MIB. The TCL IVR 2.0 application can record the results of MCID invocations using syslog and the TCL IVR 2.0 “log” command.
- The gateway cannot send an MCID request across a VoIP network using an H.323 or SIP message.

Information About MCID Invocation Support for Enterprise Networks

To configure the MCID Invocation Support for Enterprise Networks feature, you should understand the following concepts:

- [MCID Using DTMF, page 3](#)
- [TCL IVR Enhancements, page 4](#)
- [RADIUS Accounting, page 4](#)

MCID Using DTMF

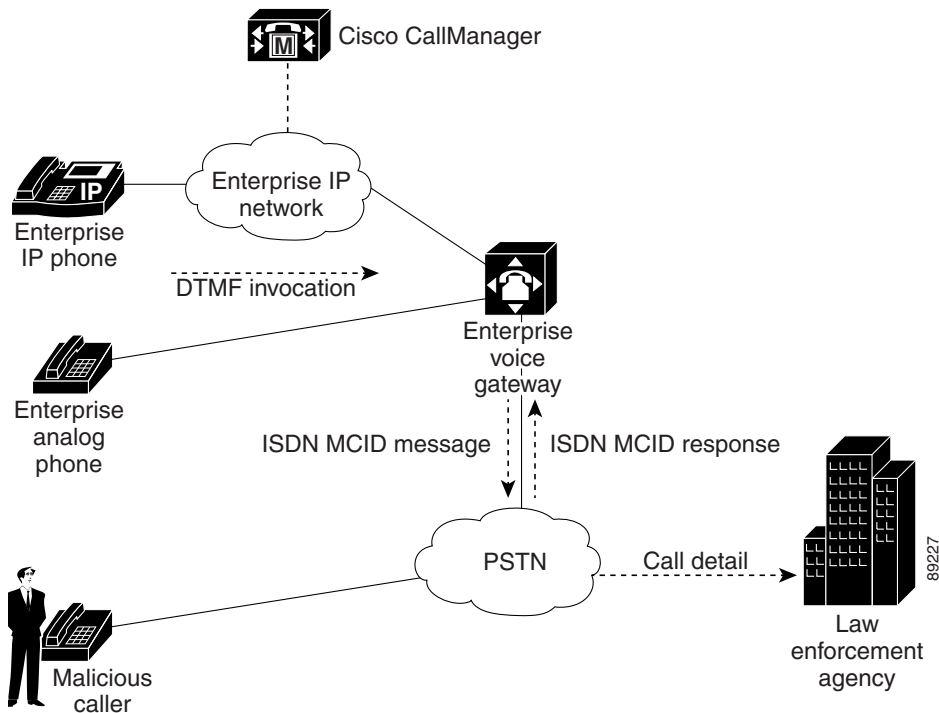
The MCID Invocation Support for Enterprise Networks feature enables a called party to request that a calling number from outside the enterprise network be forwarded to a law enforcement agency. The following describes the sequence of events for a malicious call (see [Figure 1](#)):

1. The recipient of a malicious call requests the notification by pressing a sequence of keys on a telephone.
2. The DTMF tones are transmitted to the Cisco voice gateway at the edge of the IP network.
3. A TCL IVR application running on the gateway recognizes the DTMF sequence and initiates an ISDN Facility message containing the MCID request.
4. The gateway sends the MCID request over its ISDN interface to the adjacent PSTN switch, which is responsible for implementing MCID service.
5. The PSTN switch notifies the appropriate law enforcement agency and sends a Facility acknowledgement to the voice gateway with the MCID response.

**Note**

The calling party can hear the DTMF tones if MCID is invoked during a call.

Figure 1 MCID Invocation and Response



The **t-activate** command can be used to start a timer when the voice gateway sends a Facility message to the PSTN. If a response is not received within the specified time, the TCL IVR script is notified. Depending on how the script is written, it could reinvoke MCID or perform some other action, such as playing a message if the MCID attempt fails.

TCL IVR Enhancements

TCL IVR 2.0 commands, infotags, and events for MCID are used by a TCL IVR script to provide the called party with the ability to invoke MCID using a configured DTMF digit sequence. The TCL IVR script reads the MCID configuration parameters, collects digits (DTMF) from the called party, and determines if MCID should be invoked. You can use the TCL IVR script that is available from Cisco or write your own. Each script can have script-specific parameters. The TCL IVR script can record the MCID invocation and status by using syslog and the TCL IVR 2.0 “log” command.

For more information, see the [TCL IVR API Version 2.0 Programming Guide](#).

RADIUS Accounting

The Cisco MCID script does not send an interim update to the RADIUS server when MCID is invoked. If you create your own custom TCL IVR script, an MCID notification event can be sent in a RADIUS interim accounting message to the RADIUS server. With each Facility message (or timeout waiting for a Facility message), the TCL IVR script communicates the event to the RADIUS server using a vendor-specific attribute (VSA) in an interim-update message.

For more information, see the [TCL IVR API Version 2.0 Programming Guide](#).

How to Configure MCID Invocation Support for Enterprise Networks

See the following sections for configuration tasks for the MCID Invocation Support for Enterprise Networks feature.

- [Configuring the ISDN Interface for MCID](#), page 5
- [Configuring MCID on the Voice Gateway \(Cisco IOS Release 12.3\(14\)T\)](#), page 6 (required)
- [Configuring MCID on the Voice Gateway \(Cisco IOS Release 12.2\(15\)T\)](#), page 8 (required)

Configuring the ISDN Interface for MCID

Perform this task to enable the ISDN interface to send MCID requests and to set the timer.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface serial** *slot/port:timeslot*
4. **isdn switch-type primary-net5**
5. **isdn incoming-voice** {data | modem | voice}
6. **isdn supp-serv mcid**
7. **isdn t-activate msec**
8. **end**
9. **show isdn status**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. • Enter your password when prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	interface serial <i>slot/port:timeslot</i> Example: Router(config)# interface serial 2/1:23	Enters interface configuration mode and specifies a serial interface created on a channelized E1 or channelized T1 controller (for ISDN PRI, channel-associated signaling or robbed-bit signaling).

	Command or Action	Purpose
Step 4	<code>isdn switch type primary-net5</code> Example: Router(config-if)# isdn switch-type primary-net5	Specifies the user-side switch as primary-net5. Note The switch type must be set as primary-net5 and configured for the user side.
Step 5	<code>isdn incoming-voice {data modem voice}</code> Example: Router(config-if)# isdn incoming-voice modem	Routes incoming voice calls to voice, data, or modems.
Step 6	<code>isdn supp-serv mcid</code> Example: Router(config-if)# isdn supp-serv mcid	Configures the ISDN interface to send the MCID invocation and response on the specified serial interface.
Step 7	<code>isdn t-activate msec</code> Example: Router(config-if)# isdn t-activate 6000	(Optional) Specifies how long the gateway waits for a response from the PSTN after sending the MCID request. <ul style="list-style-type: none">• If the timer expires, the TCL script is notified and depending on the TCL script, the expiration event may trigger an announcement or initiate another attempt.• Range is 1000 to 15000 ms. Default is 4000.
Step 8	<code>end</code> Example: Router(config-if)# end	Exits the configuration.
Step 9	<code>show isdn status</code> Example: Router# show isdn status	Displays the ISDN interface to verify the configuration.

Configuring MCID on the Voice Gateway (Cisco IOS Release 12.3(14)T)

Use this procedure to define the MCID application on a voice gateway that is running Cisco IOS Release 12.3(14)T or later. To verify your release, use the **show version** command. The following procedure uses the script provided by Cisco.

SUMMARY STEPS

1. `enable`
2. `configure terminal`
3. `application`
4. `service mcid location`
5. `param mcid-dtmf string`
6. `param mcid-release-timer seconds`
7. `param retry-count number`

8. **exit**
9. **dial-peer voice** *tag pots*
10. **service mcid**
11. **incoming called-number** *string*
12. **direct-inward-dial**
13. **port**
14. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none">• Enter your password when prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	application Example: Router(config)# application	Enters application configuration mode.
Step 4	service mcid flash:app_mcid.2.0.0.40.tcl Example: Router(config-app)# service mcid flash:app_mcid.2.0.0.40.tcl	Specifies the name and location of the MCID script.
Step 5	param mcid-dtmf <i>string</i> Example: Router(config-app-param)# param mcid-dtmf 678	(Optional) DTMF sequence that the called party enters to invoke MCID. Valid characters are *, #, and 0 to 9. Length is 3 to 5 characters.
Step 6	param mcid-release-timer <i>seconds</i> Example: Router(config-app-param)# param mcid-release-timer 30	(Optional) Number of seconds the script waits before releasing both call legs after it receives a disconnect message. Default is 60 seconds.
Step 7	param retry-count <i>number</i> Example: Router(config-app-param)# param retry-count 3	(Optional) Maximum number of times the called party can trigger MCID if all previous attempts failed. Default is 0, which means the user can invoke MCID as many times as needed.

	Command or Action	Purpose
Step 8	exit Example: Router(config-app-param)# exit	Exits to global configuration mode.
Step 9	dial-peer voice tag pots Example: Router(config)# dial-peer voice 250 pots	Configures the incoming dial peer and enters dial-peer configuration mode.
Step 10	service mcid Example: Router(config-dial-peer)# service mcid	Configures the incoming dial peer to use the MCID application.
Step 11	incoming called-number string Example: Router(config-dial-peer)# incoming called-number 555...	Configures the incoming called number for the MCID application.
Step 12	direct-inward-dial Example: Router(config-dial-peer)# direct-inward-dial	Configures direct-inward-dial (DID) for the MCID application.
Step 13	port slot/port:timeslot Example: Router(config-dial-peer)# port 3/0:23	Configures the port for the MCID application. Note The syntax of the port command is platform-specific. For information on the specific syntax for your platform, see the Cisco IOS Voice Command Reference , Release 12.3T.
Step 14	exit Example: Router(config-dial-peer)# exit	Exits to global configuration mode.

Configuring MCID on the Voice Gateway (Cisco IOS Release 12.2(15)T)

Use this procedure to define the MCID application on a voice gateway that is running a release prior to Cisco IOS Release 12.3(14)T. To verify your release, use the **show version** command. The following procedure uses the script provided by Cisco.

SUMMARY STEPS

1. **enable**
2. **copy tftp://yourhost/yourdrive/audiofile.au flash**
3. **configure terminal**
4. **call application voice application-name location**
5. **call application voice application-name parameter value**

6. **dial-peer voice** *tag pots*
7. **application** *application-name*
8. **incoming called-number** *string*
9. **direct-inward-dial**
10. **port** *slot/port*
11. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<p>enable</p> <p>Example: Router> enable</p>	<p>Enables privileged EXEC mode.</p> <ul style="list-style-type: none"> • Enter your password when prompted.
Step 2	<p>copy tftp://yourhost/yourdrive/audiofile.au flash</p> <p>Example: Router# copy tftp://abchost/abkdir/mcid_fail_init.au flash</p>	<p>Copies the audio files to system flash memory. Copy all of the following audio files to system flash memory:</p> <ul style="list-style-type: none"> • mcid_fail_init.au • mcid_succ_init.au • caller_hungup.au • mcid_in_process.au • mcid_time_out.au • init_mcid.au • mcid_no_more.au • mcid_wait.au <p>Note The audio files are available with the TCL IVR script and a ReadMe file on Cisco.com at http://www.cisco.com/cgi-bin/tablebuild.pl/tclware</p>
Step 3	<p>configure terminal</p> <p>Example: Router# configure terminal</p>	<p>Enters global configuration mode.</p>
Step 4	<p>call application voice <i>application-name location</i></p> <p>Example: Router(config)# call application voice mcid tftp://abc/app_mcid.2.0.0.40.tcl</p>	<p>Specifies the name and location of the TCL IVR script used for MCID.</p>

	Command or Action	Purpose
Step 5	<p>call application voice <i>application-name</i> <i>parameter value</i></p> <p>Example: Router(config)# call application voice mcid mcid-dtmf *39#</p> <p>Example: Router(config)# call application voice mcid mcid-release-timer 30</p> <p>Example: Router(config)# call application voice mcid mcid-retry-limit 3</p>	<p>Configures the MCID attribute-value (AV) pairs. Valid <i>parameter</i> and <i>value</i> arguments are as follows:</p> <ul style="list-style-type: none"> • mcid-dtmf—DTMF sequence that the called party enters to invoke MCID. Valid characters are *, #, and 0 to 9. Length is 3 to 5 characters. • mcid-release-timer—(Optional) Starts a timer when a DISC or DISC progress indicator (PI) message is received by the script. The script releases both call legs when the timer expires. Default is 60 seconds. Maximum is 120 seconds. • mcid-retry-limit—(Optional) Maximum number of times the called party can trigger MCID if all previous attempts failed. Default is 0, which means the user can invoke MCID as many times as needed.
Step 6	<p>dial-peer voice <i>tag pots</i></p> <p>Example: Router(config)# dial-peer voice 250 pots</p>	Enters dial-peer configuration mode.
Step 7	<p>application <i>application-name</i></p> <p>Example: Router(config-dial-peer)# application mcid</p>	Associates the MCID application with the incoming dial peer.
Step 8	<p>incoming called-number <i>string</i></p> <p>Example: Router(config-dial-peer)# incoming called-number 222....</p>	Specifies the incoming called number for the MCID application.
Step 9	<p>direct-inward-dial</p> <p>Example: Router(config-dial-peer)# direct-inward-dial</p>	Sets direct-inward-dial (DID) for the MCID application.
Step 10	<p>port <i>slot/port</i></p> <p>Example: Router(config-dial-peer)# port 1:D</p>	Specifies the port for incoming calls to the MCID application.
Step 11	<p>exit</p> <p>Example: Router(config)# exit</p>	Exits global configuration mode and enters privileged EXEC mode.

Troubleshooting Tips

Use the **debug isdn q931**, **debug cdapi events**, and **debug cdapi detail** commands to ensure that a Facility message “ETSI Supplementary Service, Invoke, Malicious Call ID” is being sent, and that a Facility message “ETSI Supplementary Service, Return Result” is received from the PSTN. You can also make sure you see “MCID Response = serviceSucceeded.”

The following sample output displays the log from a debug session:

```
*Mar 7 07:57:52.159: CDAPI: cdapi_create_msg(): CDAPI Pool Count: 159, Raw Length = 0
*Mar 7 07:57:52.159: Se7/4:23 CDAPI: TX -> CDAPI_MSG_SUBTYPE_MCID_REQ to ISDN call = 0x1
*Mar 7 07:57:52.159: From Appl/Stack = TSP CDAPI Application Voice
*Mar 7 07:57:52.159: Call Type = VOICE
*Mar 7 07:57:52.159: B Channel = 0
*Mar 7 07:57:52.159: dslId = 0
*Mar 7 07:57:52.159: IdB = 647BDBE4
*Mar 7 07:57:52.159: BChanIdB = 0
*Mar 7 07:57:52.159: Handle = 0
*Mar 7 07:57:52.159: RPA = 0
*Mar 7 07:57:52.159: Cause = 0
*Mar 7 07:57:52.159: ApplCause = 0
*Mar 7 07:57:52.159: ApplSpecData = 0
*Mar 7 07:57:52.159: Overlap = 0
*Mar 7 07:57:52.163: CDAPI-ISDN Se7/4:23: RX <- CDAPI_MSG_SS_REQ from TSP CDAPI
Application Voice call = 0x1
*Mar 7 07:57:52.163: Sub Msg = CDAPI_MSG_SUBTYPE_MCID_REQ
*Mar 7 07:57:52.163: Call Type = VOICE
*Mar 7 07:57:52.163: B Channel = 0
*Mar 7 07:57:52.163: Cause = 0
*Mar 7 07:57:52.163: CDAPI-ISDN: Se7/4:23 : Calling_oct3a = 0x0 Calling_oct3 = 0x0
Called_oct3 = 0x80
*Mar 7 07:57:52.163: Progress_oct3 = 0x0 Progress_oct4 = 0x0
*Mar 7 07:57:52.163: ieID = -1 typeOfNumber = -1
*Mar 7 07:57:52.163: numberingPlanID = -1 presentationIndicator = -1
*Mar 7 07:57:52.163: screeningIndicator = -1 reasonForRedirection = -1
*Mar 7 07:57:52.163: CDAPI: cdapi_free_msg(): Raw Length = 0, freeRaw = 1, Raw Msg = 0x0
*Mar 7 07:57:52.163: CDAPI: cdapi_free_msg(): CDAPI Pool Count: 160
*Mar 7 07:57:52.163: ISDN Se7/4:23 Q931: TX -> FACILITY pd = 8 callref = 0x8001
Facility i = 0x91A106020107020103
- ETSI Supplementary Service, Invoke, Malicious Call ID
*Mar 7 07:57:52.183: ISDN Se7/4:23 Q931: RX <- FACILITY pd = 8 callref = 0x01
Facility i = 0x91A203020107
- ETSI Supplementary Service, Return Result
*Mar 7 07:57:52.183: ISDN Se7/4:23 EVENT: process_rxstate: ces/callid 1/0x1 calltype 2
CALL_FACILITY_INVOKE
*Mar 7 07:57:52.183: cdapi_map_isdn_to_cdapi p_pkg (size=14) :
*Mar 7 07:57:52.183: 61 0 1 0 1 0 1C 6 91 A2 3 2 1 7
*Mar 7 07:57:52.187:
*Mar 7 07:57:52.187: CDAPI: cdapi_create_msg(): CDAPI Pool Count: 159, Raw Length = 8
*Mar 7 07:57:52.187: CDAPI: cdapi_create_raw_msg(): Created raw message buffer, Length =
8, Pool count: 160 Raw Msg = 0x6476A524, Buff = 0x6476A52C
*Mar 7 07:57:52.187: CDAPI: cdapi_create_msg(): Copied raw message of length 8, Msg =
0x6476A524, Raw = 0x6476A52C
*Mar 7 07:57:52.187: Se7/4:23 CDAPI: TX -> CDAPI_MSG_SUBTYPE_MCID_RESP to TSP CDAPI
Application Voice call = 0x1
*Mar 7 07:57:52.187: From Appl/Stack = ISDN
*Mar 7 07:57:52.187: Call Type = VOICE
*Mar 7 07:57:52.187: B Channel = 38736
*Mar 7 07:57:52.187: dslId = 0
*Mar 7 07:57:52.187: IdB = 647BDBE4
*Mar 7 07:57:52.187: BChanIdB = 0
*Mar 7 07:57:52.187: Handle = 0
*Mar 7 07:57:52.187: RPA = 0
```

```

*Mar 7 07:57:52.187: Cause          = 0
*Mar 7 07:57:52.187: ApplCause      = 0
*Mar 7 07:57:52.187: ApplSpecData  = 0
*Mar 7 07:57:52.187: Overlap       = 0
*Mar 7 07:57:52.187: MCID Response = serviceSucceeded
*Mar 7 07:57:52.187: CDAPI: cdapi_free_msg(): Raw Length = 8, freeRaw = 0, Raw Msg =
0x6476A524
*Mar 7 07:57:52.187: CDAPI: cdapi_free_msg(): CDAPI Pool Count: 160
*Mar 7 07:57:52.187: CDAPI: cdapi_free_raw_msg_buf(): Type = SMALL
*Mar 7 07:57:52.187: CDAPI: cdapi_free_raw_msg(): Raw Msg = 0x6476A524, Type = SMALL
*Mar 7 07:57:52.187: CDAPI: cdapi_free_raw_msg(): Freed raw message buffer, Type = SMALL,
Pool count: 161

```

If the PSTN returns a Facility message “ETSI Supplementary Service, Return Error,” then you should look at CDAPI debugs (output below) to see the reason for the error. The following is sample output from an unsuccessful attempt where the PSTN returns an error:

```

*Mar 7 07:53:51.787: Se7/4:23 CDAPI: TX -> CDAPI_MSG_SUBTYPE_MCID_RESP to TSP CDAPI
Application Voice call = 0x1
*Mar 7 07:53:51.787: From Appl/Stack = ISDN
*Mar 7 07:53:51.787: Call Type      = VOICE
*Mar 7 07:53:51.787: B Channel      = 38736
*Mar 7 07:53:51.787: dslId         = 0
*Mar 7 07:53:51.787: Idb           = 647BDBE4
*Mar 7 07:53:51.787: BChanIdb     = 0
*Mar 7 07:53:51.787: Handle        = 0
*Mar 7 07:53:51.787: RPA           = 0
*Mar 7 07:53:51.787: Cause         = 0
*Mar 7 07:53:51.787: ApplCause     = 0
*Mar 7 07:53:51.787: ApplSpecData = 0
*Mar 7 07:53:51.787: Overlap       = 0
*Mar 7 07:53:51.787: MCID Response = notAvailable

```

In the output above, the error message “MCID Response = notAvailable” indicates that the MCID service is not available from the PSTN.

Configuration Examples for MCID Invocation Support for Enterprise Networks

This section provides the following configuration examples:

- [Configuring MCID in Cisco IOS Release 12.3\(14\)T: Example, page 13](#)
- [Configuring MCID in Cisco IOS Release 12.2\(15\)T: Example, page 15](#)

Configuring MCID in Cisco IOS Release 12.3(14)T: Example

```
Current configuration : 1552 bytes
!
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname router_2801
!
boot-start-marker
boot-end-marker
!
no logging console
!
no aaa new-model
!
resource manager
!
network-clock-participate wic 2
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
ip subnet-zero
ip cef
!
!
no ip dhcp use vrf connected
!
!
no ip domain lookup
no ftp-server write-enable
isdn switch-type primary-net5
!
voice-card 0
!
!
!
application
  service mcid flash:app_mcid.2.0.0.40.tcl
  param mcid-dtmf 678
!
!
controller T1 0/2/0
  framing esf
  linecode b8zs
  pri-group timeslots 1-24
!
```

```
controller T1 0/2/1
  framing esf
  linecode b8zs
!
!
!
interface FastEthernet0/0
  ip address 30.0.0.1 255.0.0.0
  duplex auto
  speed auto
!
interface FastEthernet0/1
  no ip address
  shutdown
  duplex auto
  speed auto
!
interface Serial0/2/0:23
  no ip address
  isdn switch-type primary-net5
  isdn incoming-voice modem
  isdn supp-service mcid
  isdn T-Activate 5000
  no cdp enable
!
ip default-gateway 1.5.0.1
ip classless
ip route 0.0.0.0 0.0.0.0 1.5.0.1
!
ip http server
!
disable-eadi
!
!
control-plane
!
!
!
voice-port 0/2/0:23
!
!
!
dial-peer voice 222 pots
  service mcid
  incoming called-number 555555
  no digit-strip
  direct-inward-dial
  port 0/2/0:23
!
dial-peer voice 333 voip
  destination-pattern 555555
  session target ipv4:30.0.0.2
  dtmf-relay h245-signal h245-alphanumeric
!
!
line con 0
  exec-timeout 0 0
line aux 0
line vty 0 4
  login
!
end
```

Configuring MCID in Cisco IOS Release 12.2(15)T: Example

```
!  
controller e1 0  
  clock source line primary  
  pri-group timeslots 1-31  
!  
interface serial0:23  
  isdn switch-type primary-net5  
  ip address 10.10.10.0 255.255.255.0  
  isdn incoming-voice modem  
  isdn supp-serv mcid  
  isdn T-Activate 6000  
!  
!  
call application voice mcid flash:app_mcid.2.0.0.40.tcl  
call application voice mcid mcid-dtmf *39#  
call application voice mcid mcid-release-timer 30  
call application voice mcid mcid-retry-limit 3  
!  
!  
dial-peer voice 1 pots  
  application mcid  
  destination-pattern 2010  
  incoming called-number 2000  
  direct-inward-dial  
  port 3/0:23  
  forward-digits all  
!
```

Additional References

The following sections provide references related to the Malicious Caller Identification Invocation Support for Enterprise Networks feature.

Related Documents

Related Topic	Document Title
Overview of TCL IVR applications	<i>Cisco IOS TCL IVR and VoiceXML Application Guide</i>
TCL IVR scripting	<i>Tcl IVR API Version 2.0 Programming Guide</i>
Cisco IOS Release 12.3(14)T commands for voice applications	<i>HTTP Client API for TCL IVR</i>
Additional Cisco IOS Voice Configuration Library documents, including library preface and glossary	<i>Cisco IOS Debug Command Reference, Release 12.3T</i> <i>Cisco IOS Voice Configuration Library</i>
Cisco IOS voice command reference	<i>Cisco IOS Voice Command Reference, Release 12.3T</i>

Standards

Standards ¹	Title
Q.951.7	<i>Stage 3 description for number identification supplementary services using DSS1: Malicious Call Identification (MCID)</i>
I.251.7	<i>Malicious Call Identification</i>

1. Not all supported standards are listed.

MIBs

MIBs	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
None	—

Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, tools, and lots more. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/public/support/tac/home.shtml

Command Reference

This section documents new commands.

- [isdn supp-service mcid](#)
- [isdn t-activate](#)

isdn supp-service mcid

To enable an ISDN serial interface for Malicious Caller Identification (MCID), use the **isdn supp-service mcid** command in interface configuration mode. To disable MCID functionality, use the **no** form of this command.

isdn supp-service mcid

no isdn supp-service mcid

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Interface configuration

Command History

Release	Modification
12.2(15)T	This command was introduced.

Usage Guidelines

The ISDN interface must use the NET5 switch type, which is set using the **isdn switch-type primary-net5** command. Protocol emulation must be set to user, which is the default for the **isdn protocol-emulate** command. This command is valid only at the ISDN interface level.

Examples

The following configuration example shows MCID enabled for the PRI:

```
interface serial0:23
 isdn switch-type primary-net5
 ip address 10.10.10.0 255.255.255.0
 isdn supp-service mcid
 isdn T-Activate 5000
```

Related Commands

Command	Description
interface serial	Specifies a serial interface created on a channelized E1 or channelized T1 controller for ISDN PRI, channel-associated signaling, or robbed-bit signaling.
isdn protocol-emulate	Configures the PRI interface to serve as either the primary slave (user) or the primary master (network).
isdn switch-type	Specifies the central office switch type on the ISDN interface.
isdn t-activate	Specifies how long the ISDN serial interface must wait for the malicious caller to be identified.

isdn t-activate

To specify how long the gateway waits for a response from the PSTN after sending a MCID request, use the **isdn t-activate** command in interface configuration mode. To disable the timer, use the **no** form of this command.

isdn t-activate *ms*

no isdn t-activate *ms*

Syntax Description	<i>ms</i>	Number of milliseconds (ms). Range is 1000 to 15000. Default is 4000; 5000 is recommended.
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Defaults	4000 ms
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Command Modes	Interface configuration
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Command History	Release	Modification
	12.2(15)T	This command was introduced.

Usage Guidelines	This command starts a timer when the voice gateway sends a Facility message to the PSTN. If a response is not received within the specified time, the Tcl IVR script for MCID is notified. Depending on how the script is written, it could reinvoke MCID or perform some other action, such as playing a message if the MCID attempt fails. This command is valid only at the ISDN interface level. The ISDN interface must use the NET5 switch type, which is set using the isdn switch-type primary-net5 command. Protocol emulation must be set to user, which is the default for the isdn protocol-emulate command.
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Examples	The following example shows the configuration of the timer on serial interface 0:23:
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```
interface serial0:23
 isdn switch-type primary-net5
 ip address 10.10.10.0 255.255.255.0
 isdn suppserv mcid
 isdn T-Activate 5000
```

Related Commands	Command	Description
	interface serial	Specifies a serial interface created on a channelized E1 or channelized T1 controller for ISDN PRI, channel-associated signaling, or robbed-bit signaling.
isdn protocol-emulate	Configures the PRI interface to serve as either the primary slave (user) or the primary master (network).	

Command	Description
isdn switch-type	Specifies the central office switch type on the ISDN interface.
isdn suppserv mcid	Configures an ISDN serial interface for MCID.