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·VONEXUS·

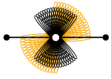
MICROSOFT®-BASED BUSINESS COMMUNICATIONS

An Interactive Intelligence Company

USING CISCO SIP TLS/SRTP xIC

VERSION 1.1

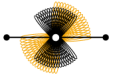
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SRTP with Cisco Gateways

Contents

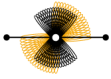
REVISION CONTROL	2
INTRODUCTION	3
GATEWAY CONFIGURATION	4
HARDWARE CONFIGURATION.....	5
GLOBAL CONFIGURATION	5
CERTIFICATE CONFIGURATION.....	5
DIAL-PEER CONFIGURATION	10
INTERACTION CENTER CONFIGURATION	11
REDUNDANCY.....	17
FUNCTIONAL TESTS.....	18
INBOUND AND OUTBOUND WITH CISCO 2811 AND XIC 3.0 SU1	18
FAXING SUPPORT.....	19
TROUBLESHOOTING	21
<i>A working inbound call (PSTN to SIP):.....</i>	<i>21</i>
<i>A working outbound call (SIP to PSTN):.....</i>	<i>33</i>
<i>A problem with DSP Support.....</i>	<i>46</i>
<i>A working show run.....</i>	<i>47</i>



SRTP with Cisco Gateways

Revision Control

Version	Date	Change Description	Author
1.00	4/04/08	Initial draft.	Jim Ostrognai
1.1	4/24/09	Cisco Fixed many Bugs. Re-verified with Version 12.4(22)T1, RELEASE SOFTWARE (fc5)	David Kriebel



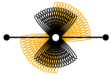
SRTP with Cisco Gateways

Introduction

The configuration on the preceding pages is provided as a courtesy and should not be taken as exact representations of any customer environment. The configuration presented may not be the best solution for larger more complex networks. This document's purpose is to provide a resource for network engineers prior to implementation. Cisco Systems could change features and products at anytime without the knowledge of Interactive Intelligence.

Interaction Center 3.0 introduces the feature to secure calls. With industry standard Transport Layer Security (TLS) the signaling can be encrypted for endpoint authentication. Interaction Center uses RFC 2246 TLS Version 1.0, RFC 3268 AES for TLS, and RFC 4568 Security Descriptions in SDP (SDS).

Interaction Center can easily use Secure Real-time Transport Protocol (SRTP) **RFC 3711** to secure and encrypt the audio packets. Using these two methods together can eliminate problems with interception, modification and fabrication. Be sure to read ***Interaction Center Security Concepts*** at www.inin.com for the detail on Interaction Center Security features and configuration options.



S RTP with Cisco Gateways

Gateway Configuration

We were able to successfully integrate using the following Cisco IOS version and hardware.

```
Cisco IOS Software, 2800 Software (C2800NM-ADVENTERPRISEK9_IVS-M), Version
12.4(15)T3, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Thu 24-Jan-08 15:26 by prod_rel_team
```

```
ROM: System Bootstrap, Version 12.4(13r)T5, RELEASE SOFTWARE (fc1)
```

```
Delta uptime is 17 hours, 0 minutes
System returned to ROM by reload at 16:34:16 east Thu Apr 3 2008
System restarted at 16:35:40 east Thu Apr 3 2008
System image file is "flash:c2800nm-adventerprisek9_ivs-mz.124-15.T3.bin"
```

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

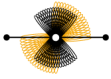
A summary of U.S. laws governing Cisco cryptographic products may be found at:

<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

```
Cisco 2811 (revision 53.50) with 247808K/14336K bytes of memory.
Processor board ID FTX1019A372
2 FastEthernet interfaces
5 Serial interfaces
1 Serial(sync/async) interface
1 Channelized T1/PRI port
1 Virtual Private Network (VPN) Module
DRAM configuration is 64 bits wide with parity enabled.
239K bytes of non-volatile configuration memory.
1000944K bytes of ATA CompactFlash (Read/Write)
```

```
Configuration register is 0x2102
```



SRTP with Cisco Gateways

Hardware Configuration

The use of SRTP on a Cisco gateway carries a hefty cost. Using the codec complexity of secure will use more DSP resources than using a codec without this added security. With a NM-HDV module, we could only get 12 channels of SRTP on a PRI. Consult www.cisco.com for details on the supported hardware and loading characteristics. In this example we are setting up a simple ISDN PRI with NI2 and DSP security.

```
Delta(config)#voice-card 1
Delta(config-voicecard)#codec complexity secure
Delta(config)#controller t1 1/0/0
Delta(config-controller)#pri-group timeslots 1-12
Delta(config-controller)#framing esf
Delta(config-controller)#linecode b8zs
Delta(config-controller)#no shutdown
Delta(config-controller)#exit
Delta(config)#voice-port 1/0/0:23
Delta(config-voiceport)#no shutdown
Delta(config)#interface Serial1/0/0:23
Delta(config-if)#isdn switch-type primary-ni
Delta(config-if)#isdn incoming-voice voice
```

Global Configuration

You can configure TLS and SRTP at the global or dial-peer level. These examples shows configuration at the global level and at the dial-peer level. Even though the Cisco doc claims to support SRTP fallback it was not tested.

```
Delta(config)#voice service voip
Delta(conf-voi-serv)#srtp
Delta(conf-voi-serv)#sip
Delta(conf-serv-sip)#url sips
Delta(conf-serv-sip)#session transport tcp tls
```

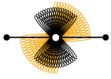
Certificate Configuration

In this example the Gateway needs to generate a certificate to be signed by Interaction Center. Interaction Center is the Certificate Authority.

1. Generate the Key Pair that will be signed by the IC Server

```
Delta#config t
Enter configuration commands, one per line. End with CNTL/Z.

Delta(config)#crypto key generate rsa general-keys label ININ-Key exportable
The name for the keys will be: ININ-Key
```



SRTTP with Cisco Gateways

Choose the size of the key modulus in the range of 360 to 2048 for your General Purpose Keys. Choosing a key modulus greater than 512 may take a few minutes.

```
How many bits in the modulus [512]: 1024
% Generating 1024 bit RSA keys, keys will be exportable...[OK]
```

2. Now you must create a "Trustpoint". The Trustpoint is a marker to your Certificates on the Gateway. You must provide info about your site for the Certificate Signing Request.

```
Delta(config)#crypto ca trustpoint INDY
Delta(ca-trustpoint)#enrollment terminal pem
Delta(ca-trustpoint)#crl optional
Delta(ca-trustpoint)#subject-name C=US, ST=Indiana, L=Indianapolis,
O=InteractiveIntelligence, OU=Testing, CN=www.inin.com
Delta(ca-trustpoint)#fqdn www.inin.com
Delta(ca-trustpoint)#rsakeypair ININ-Key
Delta(ca-trustpoint)#exit
```

3. Now we are ready to Generate the Certificate Signing Request

```
Delta(config)#crypto ca enroll INDY
% Start certificate enrollment ..

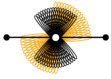
% The subject name in the certificate will include: C=US, ST=Indiana,
L=Indianapolis, O=InteractiveIntelligence, OU=Testing, CN=www.inin.com
% The subject name in the certificate will include: www.inin.com
% Include the router serial number in the subject name? [yes/no]: no
% Include an IP address in the subject name? [no]: no
Display Certificate Request to terminal? [yes/no]: yes
```

Certificate Request follows:

```
-----BEGIN CERTIFICATE REQUEST-----
MIICADCCAWkCAQAwZ4xFTATBgNVBAMTDHd3dy5pbmluLmNvbTEQMA4GA1UECzMH
VGVzdGluZzEgMB4GA1UEChMXSW50ZXJhY3RpdmVJbnRlbGxpZ2VuY2UxFTATBgNV
BACtDEluZGhbmFwb2xpczEQMA4GA1UECBMHSW5kaWFuYTELMAkGA1UEBhMVCVVMx
GzAZBgkqhkiG9w0BCQIWDHd3dy5pbmluLmNvbTCBnzANBgkqhkiG9w0BAQEFAAOB
jQAwYkCgYEAspy6AK2baQErA/sBW9KMBY21GeTpw0JzbPzRqKq5ynUzeK2BuPqn
nw/HTd/c9em8Ck+vg4KePqR9sJNHVJTuwIZVPlW5PSnZp84wrqd5wZAm2DL4k4XT
1aYkwSkC+QvCUNrjRGCBA1c1G0jpfmFEMLH1zKLVtsqKXwjh6TZirsMCAwEAAAh
MB8GCSqGSIb3DQEJdJESMBAwDgYDVDR0PAQH/BAQDAgWgMA0GCSqGSIb3DQEBAUA
A4GBAHimjLwfOYrz+GEUXd02pzPtlyCwWh2vT4bQBvUdz4Y0AsLYc7ZP+4lWBR6Y
I3zRMOrcnkthCSi/oahNiIvJ6S6XhXjwlt6wH+ReA0mJIKFZRdVchOPbnE7xOEs1
NoJcRDDgAg+50tDAFxl0Dee27/NvRh87px6s6Ku43UyJ7M99
-----END CERTIFICATE REQUEST-----
```

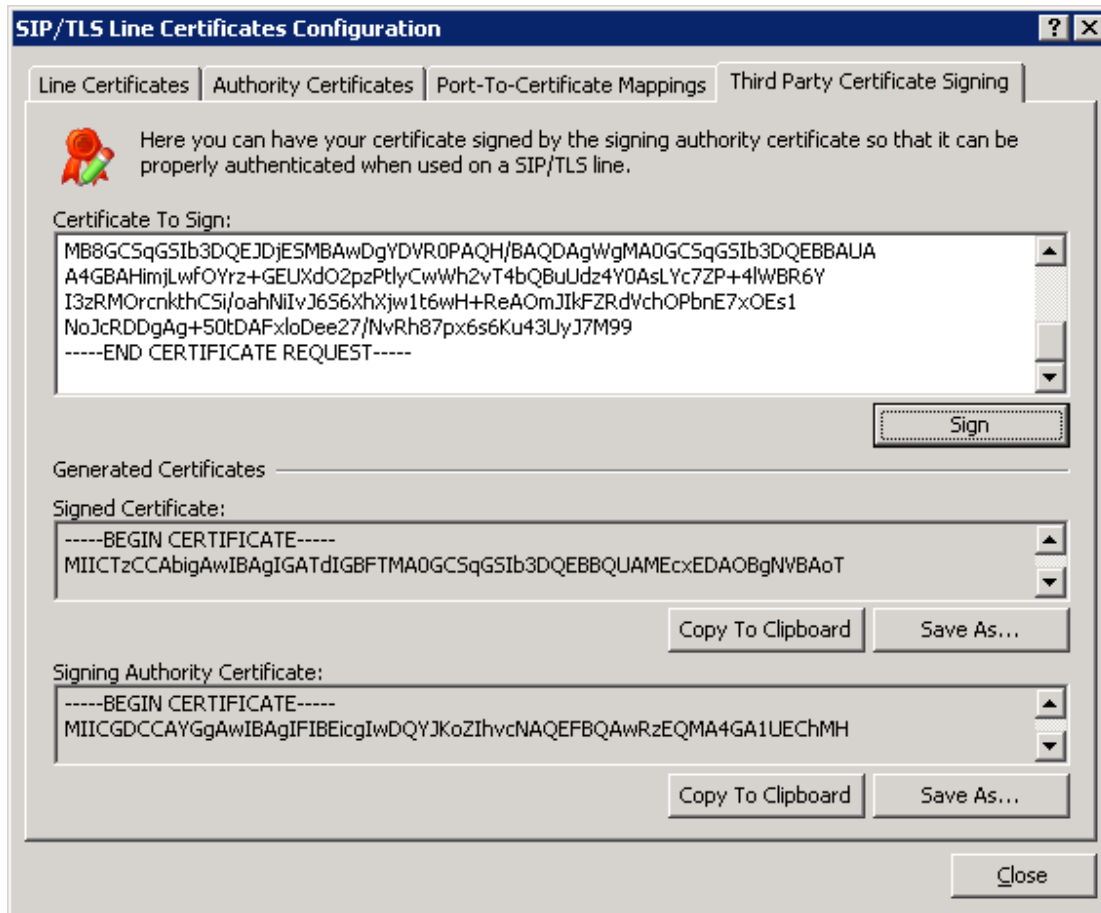
---End - This line not part of the certificate request---

```
Redisplay enrollment request? [yes/no]:no
Delta(config)#
```

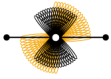


SRTP with Cisco Gateways

- Now we can take this to Interaction Administrator to be signed.
You must Copy and Paste all of the ----BEGIN CERTIFICATE REQUEST down to -----END CERTIFICATE REQUEST-----
This is found under System Configuration – Certificate Management – SIP/TLS Line Cert Config - Modify...



You will want to save the Top Certificate as “CiscoRouterSignedCertificate” and the bottom Certificate as “CiscoRouteri3AuthorityCertificate”. **Be sure to save these to a safe and secure location.**



S RTP with Cisco Gateways

5. First we need to load the Signed CiscoRouteri3AuthorityCertificate

```
Delta(config)#crypto ca authenticate INDY
```

Enter the base 64 encoded CA certificate.

End with a blank line or the word "quit" on a line by itself

```
-----BEGIN CERTIFICATE-----
```

```
MIICGzCCAYSgAwIBAgIGAYMWM2IYMA0GCSqGSIb3DQEgBBQUAMEGxEDA0BgNVBAoT
B1NlcnZlcnMxFTATBgNVBAsTDFNlcnZlciBHcm91cDEdMBSGA1UEAxQUUVgtTE9L
SV9TZXJ2ZXIgr3JvdXAwhHcnNMDcwODA2MTI0NzZM2WhcNMjcwODA3MTI0NzZM2WjBI
MRAwDgYDVQQKEwdTZXJ2ZXJzMRUwEwYDVQQLEwxTZXJ2ZXIgr3JvdXAwhHTAbBgNV
BAMUFFFFYLUxPS0lfU2VydMvYIEdyb3VwMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCB
iQKBBgQClToX/SgXp5lXdZKbc/sdJnLoXrxLxU7pwGn3tVu/D8xQPC0ksq18rSU62
NoAzRLS5Bct/IBqVz3EM4tDTMeWAK8bLF6Y8HWZ4514Cu+dernfoPUMbflkBe6bv
6youa+wmlU+LlIksV4qpRyZzxqi7tacdq8+ad4BQ+60mYtRU+QIDAQABoxAwDjAM
BgNVHRMEBTADAQH/MA0GCSqGSIb3DQEgBBQUAA4GBAF3g1UZlftWzGUkxbiKMcoEU
ssKtnKMyv0Htn7Sm8w0USWPrdGT+q7iqsuJgsvzR3Z6KHMDnF1Qa4OpwgKiktXEm
uhIXsyilniEWvi2uuRJ3Quelfh5tuhkVqov0p1LSRGRVPMbzv1woeHJD36zTx5tY
NaPND7VebEhMLJuPMTIU
```

```
-----END CERTIFICATE-----
```

Certificate has the following attributes:

Fingerprint MD5: EBA2163C A68A9B7C 3D301CFB FEAC1BA1

Fingerprint SHA1: AFDF3A6A 9937EC74 CEF36D97 F9106626 162F15E7

```
% Do you accept this certificate? [yes/no]:yes
```

```
Trustpoint CA certificate accepted.
```

```
% Certificate successfully imported
```

6. Now we need to load the CiscoRouterSignedCertificate

```
Delta(config)#crypto ca import INDY certificate
```

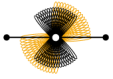
Enter the base 64 encoded certificate.

End with a blank line or the word "quit" on a line by itself

```
-----BEGIN CERTIFICATE-----
```

```
MIICUjCCAbugAwIBAgIGAZBEI3GXMA0GCSqGSIb3DQEgBBQUAMEGxEDA0BgNVBAoT
B1NlcnZlcnMxFTATBgNVBAsTDFNlcnZlciBHcm91cDEdMBSGA1UEAxQUUVgtTE9L
SV9TZXJ2ZXIgr3JvdXAwhHcnNMDcwODA3MTkwOTUyWhcNMjcwODA3MTkwOTUyWjCB
kDEgMB4GA1UEChMXSW50ZXJhY3RpdmVJbnRlbGxpZ2VvY2UxHZAAdBgNVBAsTF1Rl
c3RpbmcgKDAxODMxNjMzNjIxOckxFTATBgNVBAMTDHd3dy5pbmluLmNvbTEVMBMG
A1UEBxMMSW5kaWFuYXBvbGZlMRAwDgYDVQQIEwdJbmRpwY5hMQswCQYDVQQGEwJV
UzCBnzANBgkqhkiG9w0BAQEFAAOBjQAwYkCgYEAAspy6AK2bAQErA/sBW9KMBY21
GeTpw0JzBpZrQKq5ynUzeK2BuPqnnw/HTd/c9em8Ck+vg4KePqR9sJNHVJTuwIZV
PlW5PSnZp84wrqd5wZAm2DL4k4XT1aYkwSkC+QvCUNrjRGCBA1c1G0jpfMfEMLH1
zKLVtsqKXwjh6TZirsMCAwEAATANBgkqhkiG9w0BAQUFAAOBgQBGGox1Ss61rHr0
fFe4QmDyqXEHOs9twayb1rgDDLrpdPv5oywSogj3gVLagbmEWZeT8jz1UPp2i0Vb
S5H7hLNsqrSqImzWWDjafATAA/bN66uy+2L02KeXNZUBOZRJEhJGJQR1Ybhc+1D
NDAuCkv5bN1RX5e8WBFVUCR6XOkGyw==
```

```
-----END CERTIFICATE-----
```

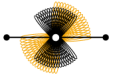


SRTP with Cisco Gateways

```
% Router Certificate successfully imported
```

7. If this is the only Certificate that this Router will be using, it would be wise to make the Trustpoint the Default whenever crypto signaling is required. You can do this with the following commands in the SIP-UA.

```
Delta(config)#sip-ua  
Delta(config-sip-ua)#crypto signaling default trustpoint INDY
```



SRTP with Cisco Gateways

Dial-peer Configuration

Now we must make changes to the dial peers so they use TLS/SRTP. The example below creates a default IP and POTS peer for simplification in the troubleshooting process, but many other layouts and options are available. Some examples are shown below:

This peer is a catch all inbound pots peer

```
Delta(config)#dial-peer voice 9 pots
Delta(config-dial-peer)#service session
Delta(config-dial-peer)#incoming called-number .T
Delta(config-dial-peer)#direct-inward-dial
```

This peer will be matched on an outbound pots call

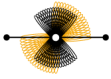
```
Delta(config)#dial-peer voice 99 pots
Delta(config-dial-peer)#service session
Delta(config-dial-peer)#destination-pattern .T
Delta(config-dial-peer)#direct-inward-dial
Delta(config-dial-peer)#port 1/0/0:23
```

An inbound voip TSL/SRTP peer

```
Delta(config)#dial-peer voice 301 voip
Delta(config-dial-peer)#voice-class sip url sips
Delta(config-dial-peer)#session protocol sipv2
Delta(config-dial-peer)#session transport tcp tls
Delta(config-dial-peer)#incoming called-number .
Delta(config-dial-peer)#dtmf-relay rtp-nte
Delta(config-dial-peer)#codec g711ulaw
Delta(config-dial-peer)#no vad
```

This peer will be matched on an outbound voip call

```
Delta(config)#dial-peer voice 305 voip
Delta(config-dial-peer)#preference 1
Delta(config-dial-peer)#destination-pattern 560....
Delta(config-dial-peer)#voice-class sip url sips
Delta(config-dial-peer)#session protocol sipv2
Delta(config-dial-peer)#session target ipv4:10.70.0.123
Delta(config-dial-peer)#dtmf-relay rtp-nte
Delta(config-dial-peer)#codec g711ulaw
Delta(config-dial-peer)#no vad
```



SRTP with Cisco Gateways

Interaction Center Configuration



Create your line. Notice that the Phone number is preceded by sips: this is a requirement for the Cisco Gateway. The from address must contain sips: for the gateway to treat the incoming call as a secure connection. Without this the call will be rejected. In SU4 and greater the Phone Number field will need to be created like the following example.

Example: sips:5151111@10.70.0.50:5061

Line Configuration - Cisco

SIP Line Configuration | Call Putback | Custom Attributes | History

Line

- Audio
- Transport
- Session
- Authentication
- Proxy
- Registrar
- Access
- Region
- TLS Security

Active

Phone Number:

Domain Name:

Maximum Number of Calls

Combined Inbound/Outbound

Inbound: No Limit

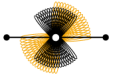
Outbound: No Limit

Disable T.38 Faxing

Auto Disconnect when Silence Detected in

Confirm auto-save

OK Cancel Apply



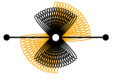
SRTP with Cisco Gateways

Be sure to set the Transport to TLS and the Audio Protocol to STRP

The screenshot shows the 'Line Configuration - Cisco' dialog box with the 'SIP Line Configuration' tab selected. The 'Transport' sub-tab is active in the left-hand menu. The configuration fields are as follows:

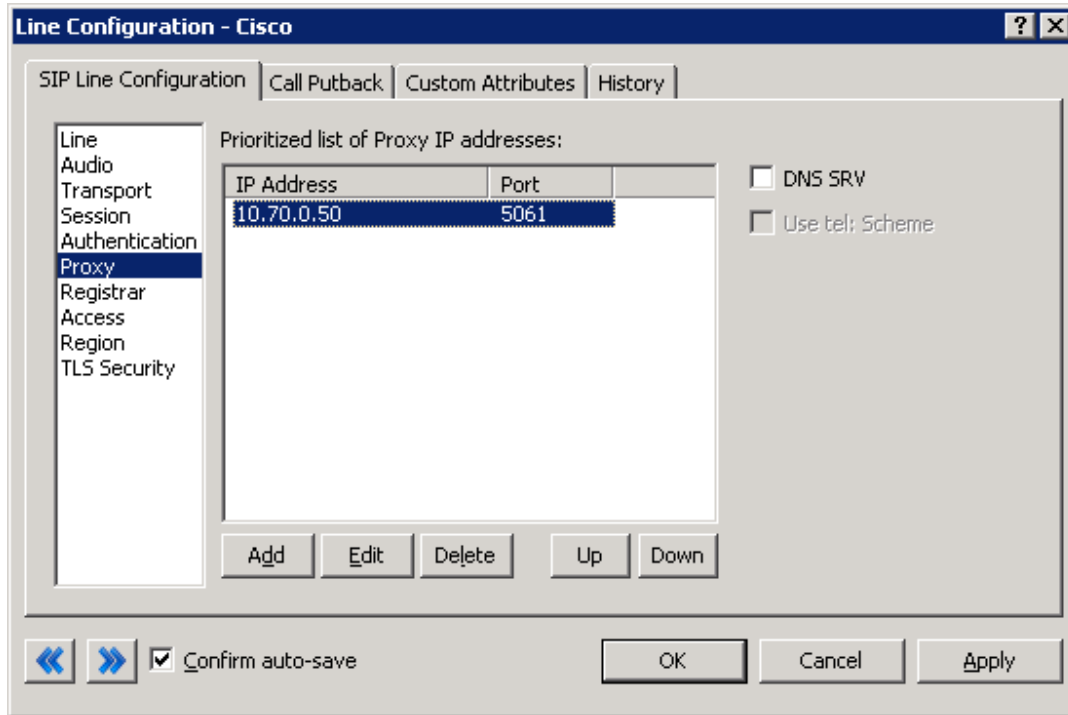
Transport Protocol:	TLS
Audio Protocol:	SRTP
Security:	End-to-Edge
Address to use:	Local Area Connection
HP NC7782 Gigabit Server Adapter	
Receive Port:	5061
Connect Timer (ms):	3500
Maximum Packet Retry:	10
T1 Timer (ms):	500
Maximum Invite Retry:	6
T2 Timer (ms):	4000
Reinvite Delay (ms):	750
Retryable Reason Codes:	480, 500-599

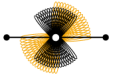
At the bottom of the dialog, there are navigation arrows, a checked 'Confirm auto-save' checkbox, and 'OK', 'Cancel', and 'Apply' buttons.



SRTP with Cisco Gateways

Set the Proxy on the line to point to your Cisco Gateway with port 5061

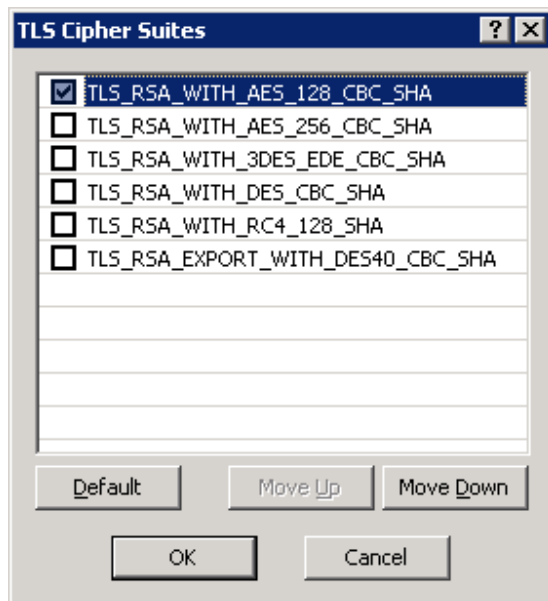


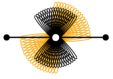


SRTP with Cisco Gateways



The TLS Cipher Suite supported by Cisco is TLS_RSA_WITH_AES_128_CBC_SHA. Not setting this correctly will result in a “SIP – Remote System not responding” when an outbound call is placed. This can be found under the SIP Line Configuration – TLS Security.

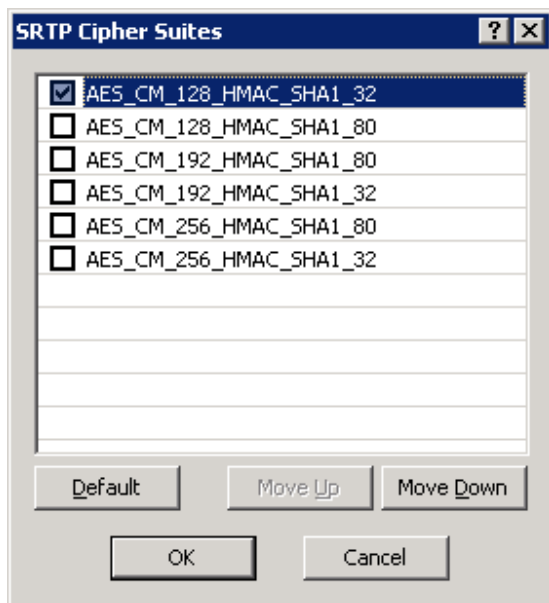


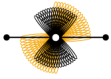


SRTP with Cisco Gateways



The default SRTP Cipher Suite needs to be changed to AES_CM_128_HMAC_SHA1_32, because this is what the Cisco Gateway supports. Not setting this correctly will result in a “488 not supported Media” returned from the Cisco Gateway. This can be found at Regionalization – Locations – Communications - Modify – SRTP Cipher Suites - Modify...





S RTP with Cisco Gateways

The dial plan must now be modified to format the dial string for easy dialing from the phone or the client.

Regional Dial Plan - Edit Pattern

Input Pattern: -> Standardized Number: {}

Location Filter: Default Dial String: {}

List Name: Display String: {}

Classification: Edit Base: {}

Account Code Verification Components: ReportingCode1:317
ReportingCode2:\$\$\$
ReportingCode3:XXXX

Description:

Dial Group	Filter	Classification	Dial String
CISCO	<All>	Local	sips:\$\$\$XXXXZ@qexp.co...

Buttons: Add Group, Edit, Remove, Up, Down, <<, >>, OK, Cancel, Help

Dial Group - Edit Entry

The following Dial Line Groups are being modified.

Dial Group	Private Line Assignment
CISCO	

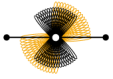
Input Pattern:

Location Filter:

Classification:

Dial String: {}

Buttons: OK, Cancel, Help



SRTP with Cisco Gateways

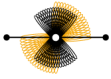
Redundancy

Here is an example on using two dial-peers for inbound calls to Interaction Center. When Interaction Center is using a switchover pair, this allows the Gateway to send the calls to the active server.

```
Delta(config)#dial-peer voice 305 voip
Delta(config-dial-peer)#preference 1
Delta(config-dial-peer)#destination-pattern 560....
Delta(config-dial-peer)#voice-class sip url sips
Delta(config-dial-peer)#session protocol sipv2
Delta(config-dial-peer)#session target ipv4:10.70.0.123
Delta(config-dial-peer)#dtmf-relay rtp-nte
Delta(config-dial-peer)#codec g711ulaw
Delta(config-dial-peer)#no vad
```

```
Delta(config)#dial-peer voice 306 voip
Delta(config-dial-peer)#preference 2
Delta(config-dial-peer)#destination-pattern 560....
Delta(config-dial-peer)#voice-class sip url sips
Delta(config-dial-peer)#session protocol sipv2
Delta(config-dial-peer)#session target ipv4:10.70.0.122
Delta(config-dial-peer)#dtmf-relay rtp-nte
Delta(config-dial-peer)#codec g711ulaw
Delta(config-dial-peer)#no vad
```

Since the Server Certificates that are used during switchover are the same, there is nothing that needs to be done for outbound calls from Interaction Center.



SRTP with Cisco Gateways

Functional Tests

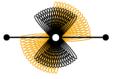
Inbound and Outbound with Cisco 2811 and xIC 3.0 SU1

- Test scenario:
1. Place an outbound call through the gateway and verify audio
 - a. Place this call on hold and then off hold and verify audio
 - b. Record a section of the call
 - c. Transfer the call to another station configured with TLS/SRTP and verify audio
 2. Place outbound call and transfer to a station configured with TLS/RTP and verify audio
 3. Repeat step 1 but with an inbound call

In our test environment the outbound calls were placed to analog phones off of a channel bank, which was connected to the gateway via a PSTN connection.

Specific Test Cases

Test Case	Title
5163	TLS/sRTP Gateway Configuration
5572	Gateway SIP Security – Hold
5573	Gateway SIP Security - Inbound Call
5574	Gateway SIP Security - Outbound Call
5576	Gateway SIP Security – Conference
5577	Gateway SIP Security - Transfer (Blind)
5578	Gateway SIP Security - Transfer (Consult)
5579	Gateway SIP Security – Recording
5580	Gateway SIP Security - G.711 and G.729 With SRTP



SRTP with Cisco Gateways

Faxing Support

Note that *only the initial tones* would be secure before the gateway flips to T.38.

To allow faxing with xIC the T.38 protocol must be enabled within the gateway. This can be done either at the global level or within a dial-peer.

Global Configuration

```
Delta(config)#voice service voip
Delta(conf-voi-serv)#fax protocol t38
```

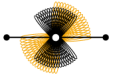
Dial-peer Configuration

An inbound fax peer

```
Delta(config)#dial-peer voice 301 voip
Delta(config-dial-peer)#fax protocol t38
```

This peer will be matched on an outbound fax

```
Delta(config)#dial-peer voice 305 voip
Delta(config-dial-peer)#fax protocol t38
```



SRTP with Cisco Gateways

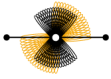
Functional Tests

To test faxing functionality simply try to send and receive faxes by using Interaction Fax.

200 faxes were sent at a rate of 1 fax every 35 seconds between two separate servers. This resulted in 200 inbound faxes and 200 outbound faxes with 95% accuracy.

Specific Test Cases

Test Case	Title
4417	SIP - T.38 Inbound/G.711
4418	SIP - T.38 Outbound/G.711
4419	SIP - T.38 Inbound/G.729
4420	SIP - T.38 Outbound/G.729



S RTP with Cisco Gateways

Troubleshooting

The documentation that could be found on www.cisco.com for TLS SRTP configuration was outdated and the commands were no longer in the IOS in the locations indicated. Becoming familiar with the following debug statements will be invaluable for determining when things are failing.

```
Delta#debug ccsip all
Delta#debug voice ccapi inout
```

Working calls are extremely valuable, so this will show 1 for each direction.

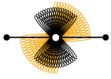
A working inbound call (PSTN to SIP):

```
001147: Mar 20 20:24:33.122: //-1/7C56219F8003/CCAPI/cc_api_display_ie_subfields:
  cc_api_call_setup_ind_common:
  cisco-username=
  ----- ccCallInfo IE subfields -----
  cisco-ani=7158634
  cisco-anitype=0
  cisco-aniplan=0
  cisco-anipi=0
  cisco-anisi=0
  dest=5601111
  cisco-desttype=0
  cisco-destplan=0
  cisco-rdie=FFFFFFFF
  cisco-rdn=
  cisco-rdntype=-1
  cisco-rdnplan=-1
  cisco-rdnpi=-1
  cisco-rdnsi=-1
  cisco-redirectreason=-1   fwd_final_type =0
  final_redirectNumber =
  hunt_group_timeout =0

001148: Mar 20 20:24:33.122: //-1/7C56219F8003/CCAPI/cc_api_call_setup_ind_common:
  Interface=0x48BE8104, Call Info(
  Calling Number=7158634,(Calling Name=)(TON=Unknown, NPI=Unknown, Screening=Not Screened,
  Presentation=Allowed),
  Called Number=5601111(TON=Unknown, NPI=Unknown),
  Calling Translated=FALSE, Subscriber Type Str=RegularLine, FinalDestinationFlag=TRUE,
  Incoming Dial-peer=9, Progress Indication=NULL(0), Calling IE Present=TRUE,
  Source Trkgrp Route Label=, Target Trkgrp Route Label=, CLID Transparent=FALSE), Call Id=-1
001149: Mar 20 20:24:33.126: //-1/7C56219F8003/CCAPI/cc_api_call_setup_ind_common:
  Interface Type=13, Protocol=0
001150: Mar 20 20:24:33.126: //-1/7C56219F8003/CCAPI/ccCheckClipClir:
  In: Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
  Presentation=Allowed)
001151: Mar 20 20:24:33.126: //-1/7C56219F8003/CCAPI/ccCheckClipClir:
  Calling Party Number Is User Provided
001152: Mar 20 20:24:33.126: //-1/7C56219F8003/CCAPI/ccCheckClipClir:
  Out: Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
  Presentation=Allowed)
001153: Mar 20 20:24:33.126: //8/xxxxxxxxxxxx/CCAPI/cc_insert_call_entry:
  Total Call Count=0, Call Entry(Call Count On=FALSE, Incoming Call=TRUE)
001154: Mar 20 20:24:33.126: //8/xxxxxxxxxxxx/CCAPI/cc_insert_call_entry:
  Total Call Count=1
001155: Mar 20 20:24:33.126: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

001156: Mar 20 20:24:33.126: :cc_get_feature_vsa malloc success
001157: Mar 20 20:24:33.126: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

001158: Mar 20 20:24:33.126: cc_get_feature_vsa count is 1
001159: Mar 20 20:24:33.126: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:
```



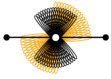
S RTP with Cisco Gateways

```
001160: Mar 20 20:24:33.126: :FEATURE_VSA attributes are:
feature_name:0,feature_time:1220106960,feature_id:3
001161: Mar 20 20:24:33.126: //-1/xxxxxxxxxxxx/CCAPI/cc_init_call_entry:

001162: Mar 20 20:24:33.126: call_init_entry calle is 48B8F098,callid is 8
001163: Mar 20 20:24:33.126: //8/7C56219F8003/CCAPI/cc_insert_guid_pod_entry:
Incoming=TRUE, Call Id=8
001164: Mar 20 20:24:33.126: //8/7C56219F8003/CCAPI/cc_api_call_setup_ind_common:
Set Up Event Sent:
Call Info(Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed),
Called Number=5601111(TON=Unknown, NPI=Unknown))
001165: Mar 20 20:24:33.126: //8/7C56219F8003/CCAPI/cc_process_call_setup_ind:
Event=0x48BA4B98
001166: Mar 20 20:24:33.130: //-1/xxxxxxxxxxxx/CCAPI/cc_setupind_registration_lookup:
Matching Parameters; Called Number=5601111, Call Transfer Consult Id=
001167: Mar 20 20:24:33.130: //-1/xxxxxxxxxxxx/CCAPI/cc_setupind_match_search:
Searching Node;
Called Number=5601111, Call Transfer Consult Id=
001168: Mar 20 20:24:33.130: //-1/xxxxxxxxxxxx/CCAPI/cc_setupind_match_compare:

001169: Mar 20 20:24:33.130: Comparing SSOpCode; 0x50 and 0x0
001170: Mar 20 20:24:33.130: //-1/xxxxxxxxxxxx/CCAPI/cc_setupind_match_compare:

001171: Mar 20 20:24:33.130: Comparing SSOpCode; 0x12 and 0x0
001172: Mar 20 20:24:33.130: //-1/xxxxxxxxxxxx/CCAPI/cc_setupind_registration_lookup:
No Matching Node
001173: Mar 20 20:24:33.134: //-1/xxxxxxxxxxxx/CCAPI/ccAppInitializePID:
Application Process Name=_ManagedAppProcess_Default, Application Process Id=193, Application
Handle=0x491184D8
001174: Mar 20 20:24:33.134: //8/7C56219F8003/CCAPI/ccCallSetContext:
Context=0x46E6CE08
001175: Mar 20 20:24:33.134: //8/7C56219F8003/CCAPI/cc_process_call_setup_ind:
>>>CCAPI handed cid 8 with tag 9 to app "_ManagedAppProcess_Default"
001176: Mar 20 20:24:33.134: //-1/xxxxxxxxxxxx/CCAPI/ccAppInitialize:
Application Name=_ManagedAppProcess_Default, Application Process Id=193, Application
Handle=0x46E19BC8
001177: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCallProceeding:
Progress Indication=NULL(0)
001178: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCallSetupRequest:
Destination=, Calling IE Present=TRUE, Mode=0,
Outgoing Dial-peer=305, Params=0x46E6DCD0, Progress Indication=NULL(0)
001179: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCheckClipClir:
In: Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed)
001180: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCheckClipClir:
Calling Party Number Is User Provided
001181: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCheckClipClir:
Out: Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed)
001182: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCallSetupRequest:
Destination Pattern=560...., Called Number=5601111, Digit Strip=FALSE
001183: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/ccCallSetupRequest:
Calling Number=7158634(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed),
Called Number=5601111(TON=Unknown, NPI=Unknown),
Redirect Number=, Display Info=
Account Number=, Final Destination Flag=TRUE,
Guid=7C56219F-F5F2-11DC-8003-00175AADECC0, Outgoing Dial-peer=305
001184: Mar 20 20:24:33.138: //8/7C56219F8003/CCAPI/cc_api_display_ie_subfields:
ccCallSetupRequest:
cisco-username=
----- ccCallInfo IE subfields -----
cisco-ani=7158634
cisco-anitype=0
cisco-aniplan=0
cisco-anipi=0
```



S RTP with Cisco Gateways

```
cisco-anisi=0
dest=5601111
cisco-desttype=0
cisco-destplan=0
cisco-rdie=FFFFFFF
cisco-rdn=
cisco-rdntype=-1
cisco-rdnplan=-1
cisco-rdnpi=-1
cisco-rdnsi=-1
cisco-redirectreason=-1 fwd_final_type =0
final_redirectNumber =
hunt_group_timeout =0

001185: Mar 20 20:24:33.142: //8/7C56219F8003/CCAPI/ccIFCallSetupRequestPrivate:
Interface=0x47ECC34C, Interface Type=3, Destination=, Mode=0x0,
Call Params(Calling Number=7158634,(Calling Name=)(TON=Unknown, NPI=Unknown, Screening=Not
Screened, Presentation=Allowed),
Called Number=5601111(TON=Unknown, NPI=Unknown), Calling Translated=FALSE,
Subscriber Type Str=RegularLine, FinalDestinationFlag=TRUE, Outgoing Dial-peer=305, Call Count
On=FALSE,
Source Trkgrp Route Label=, Target Trkgrp Route Label=, tg_label_flag=0, Application Call Id=)
001186: Mar 20 20:24:33.142: //9/xxxxxxxxxxxx/CCAPI/cc_insert_call_entry:
Total Call Count=1, Call Entry(Call Count On=FALSE, Incoming Call=FALSE)
001187: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

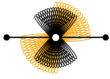
001188: Mar 20 20:24:33.142: :cc_get_feature_vsa malloc success
001189: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

001190: Mar 20 20:24:33.142: cc_get_feature_vsa count is 2
001191: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

001192: Mar 20 20:24:33.142: :FEATURE_VSA attributes are:
feature_name:0,feature_time:1220106744,feature_id:4
001193: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/CCAPI/cc_init_call_entry:

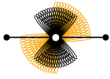
001194: Mar 20 20:24:33.142: call_init_entry calle is 48B8FB70,callid is 9
001195: Mar 20 20:24:33.142: //8/7C56219F8003/CCAPI/cc_peer_bind:
Bind=TRUE, Binder Call Id=8, Bindee Call Id=9
001196: Mar 20 20:24:33.142: //9/7C56219F8003/CCAPI/cc_insert_guid_pod_entry:
Incoming=FALSE, Call Id=9
001197: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIAddContextToTable: Added
context(0x48D1BCB4) with key=[12] to table
001198: Mar 20 20:24:33.142: //9/000000000000/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_NONE, SUBSTATE_NONE) to (STATE_IDLE, SUBSTATE_NONE)
001199: Mar 20 20:24:33.142: //9/000000000000/SIP/Info/ccsip_call_setup_request: Before
processing SETUP REQccb->pld.flags_ipip = 200
001200: Mar 20 20:24:33.142: //9/000000000000/SIP/Info/ccsip_call_setup_request: This is a TDM-IP
call: callID= 9, peer_callID = 8
001201: Mar 20 20:24:33.142: //9/000000000000/SIP/Info/ccsip_call_setup_request: After processing
SETUP REQccb->pld.flags_ipip = 200
001202: Mar 20 20:24:33.142: //9/7C56219F8003/SIP/Info/sipSPIGetOutboundHostAndDestHost: CCSIP:
target_host : 10.70.0.118 target_port : 5061

001203: Mar 20 20:24:33.142: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SIP : SIPSPI_EV_CC_CALL_SETUP
001204: Mar 20 20:24:33.142: //9/7C56219F8003/CCAPI/ccIFCallSetupRequestPrivate:
SIP Call Setup Request Is Success; Interface Type=3, FlowMode=1
001205: Mar 20 20:24:33.142: //8/7C56219F8003/CCAPI/ccCallSetupRequest:exit@2318
001206: Mar 20 20:24:33.142: //9/7C56219F8003/CCAPI/ccCallSetContext:
Context=0x46E6DC80
001207: Mar 20 20:24:33.146: //8/7C56219F8003/CCAPI/ccSaveDialpeerTag:
Outgoing Dial-peer=305
001208: Mar 20 20:24:33.146: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 3 for event 2
001209: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPIUaddccCallIdToTable: Adding call id
9 to table
```

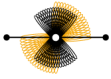
SRTP with Cisco Gateways

```
001210: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPIGetCallConfig: preferred_codec
set[0] type :No Codec bytes: 0
001211: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPICanSetFallbackFlag: Local fallback
is not active
001212: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPIGetCallConfig: Not using Voice Class
Codec
001213: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPIValidateAndCopyOutboundHost: CCSIP:
copy target_host to outbound_host
001214: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/populateOutgoingSrtpInfo: Schema from CCB.
Schema = 6
001215: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Media/sipSPISetMediaSrcAddr: Media src addr for
stream 1 = 10.70.0.50
001216: Mar 20 20:24:33.146: //-1/xxxxxxxxxxxx/SIP/Media/sipSPIReserveRtpPort: reserved port
16996 for stream 1
001217: Mar 20 20:24:33.146: //-1/xxxxxxxxxxxx/SIP/Info/convert_codec_bytes_to_ptime: Values
:Codec: g711ulaw codecbytes :160, ptime: 20
001218: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sip_generate_sdp_xcaps_list: Modem Relay
and T38 disabled. X-cap not needed
001219: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Info/sipSPIOutgoingCallSDP: Creating rcv-only
stream for outbound call
001220: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Media/sipSPIProcessRtpSessions:
sipSPIProcessRtpSessions
001221: Mar 20 20:24:33.146: //9/7C56219F8003/SIP/Media/sipSPIProcessRtpSessions: No active
streams.
001222: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIValidateGtd: Signal Forward disabled
001223: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIAddMLPPServicesInfo: No MLP Info
available on incoming leg
001224: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/act_idle_continue_call_setup:
001225: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIRscmsmAvail: Value returned by check
is = 0
001226: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIUaddCcbToUACTable: ****Adding to UAC
table.
001227: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIUaddCcbToTable: Added to table.
ccb=0x48D1BCB4 key=7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50
001228: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Info/sipSPIUserBillingProfile: sipCallId for
billing records = 7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50
001229: Mar 20 20:24:33.150: //9/7C56219F8003/CCAPI/cc_api_call_proceeding:
Interface=0x47ECC34C, Progress Indication=NULL(0)
001230: Mar 20 20:24:33.150: //9/7C56219F8003/CCAPI/cc_api_call_proceeding:exit@6618
001231: Mar 20 20:24:33.150: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Dialog
Transaction Address 10.70.0.118,Port 5061, Transport 4, SentBy Port 5061
001232: Mar 20 20:24:33.150: //-1/xxxxxxxxxxxx/SIP/Info/sipSPISetDateHeader: Converting TimeZone
east to SIP default timezone = GMT
001233: Mar 20 20:24:33.150: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIgetRegistrarHost: registrar is not
configured
001234: Mar 20 20:24:33.150: //9/7C56219F8003/SIP/Event/sipSPICreateRpid: Received Octet3A=0x80 -
> Setting ;screen=no ;privacy=off
001235: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Info/sipSPISendInvite: Associated
container=0x48F80254 to Invite
001236: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipSPISendInvite: Sending Invite to
the transport layer
001237: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipSPIGetSwitchTransportFlag: Return
the Dial peer configuration, Switch Transport is FALSE
001238: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
msg=0x49165A58, addr=10.70.0.118, port=5061, sentBy_port=0, is_req=1, transport=4, switch=0,
callBack=0x41644238
001239: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
Proceedable for sending msg immediately
001240: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: switch
transport is 0
001241: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: Set to send
the msg=0x49165A58
001242: Mar 20 20:24:33.154: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostSendMessage: Posting
send for msg=0x49165A58, addr=10.70.0.118, port=5061, connId=1 for TLS
001243: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Info/sentInviteRequest: Sent Invite in state
STATE_IDLE
001244: Mar 20 20:24:33.154: //-1/xxxxxxxxxxxx/SIP/Info/sentInviteRequest: Transaction active.
Facilities will be queued.
```



SRTP with Cisco Gateways

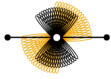
```
001245: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_IDLE, SUBSTATE_NONE) to (STATE_SENT_INVITE, SUBSTATE_NONE)
001246: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPIProcessRtpSessions:
sipSPIProcessRtpSessions
001247: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPIAddStream: Adding stream 1 of type
voice+dtmf (callid 9) to the VOIP RTP library
001248: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPISetMediaSrcAddr: Media src addr for
stream 1 = 10.70.0.50
001249: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession:
sipSPIUpdateRtcpSession for m-line 1
001250: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession: rtcp_session
info
    laddr = 10.70.0.50, lport = 16996, raddr = 0.0.0.0, rport=0, do_rtcp=FALSE
    src_callid = 9, dest_callid = -1, stream type = voice+dtmf, stream direction = RECVONLY
    media_ip_addr = 0.0.0.0, vrf tableid = 0
001251: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession: No rtp session,
creating a new one
001252: Mar 20 20:24:33.154: //9/7C56219F8003/SIP/State/sipSPIChangeStreamState: Stream (callid =
9) State changed from (STREAM_ADDING) to (STREAM_ACTIVE)
001253: Mar 20 20:24:33.154: //9/7C56219F8003/CCAPI/cc_incr_if_call_volume:
Remote IP Address=10.70.0.118, Hwidb=FastEthernet0/1
001254: Mar 20 20:24:33.154: //9/7C56219F8003/CCAPI/cc_incr_if_call_volume:
Total Call Count=1, Voip Call Count=1, MMoip Call Count=0
001255: Mar 20 20:24:33.158: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Sent:
INVITE sips:5601111@10.70.0.118:5061 SIP/2.0Via: SIP/2.0/TLS
10.70.0.50:5061;branch=z9hG4bK3AC4Remote-Party-ID:
<sips:7158634@10.70.0.50>;party=calling;screen=no;privacy=offFrom:
<sips:7158634@10.70.0.50>;tag=460158-4EETo: <sips:5601111@10.70.0.118>Date: Thu, 20 Mar 2008
20:24:33 GMTCall-ID: 7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50Supported:
100rel,timer,resource-priority,replacesMin-SE: 1800Cisco-Guid: 2086019487-4126282204-2147680279-
1521347776User-Agent: Cisco-SIPGateway/IOS-12.xAllow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK,
UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTERCSeq: 101 INVITEMax-Forwards: 70Timestamp:
1206044673Contact: <sips:7158634@10.70.0.50:5061>Expires: 180Allow-Events: telephone-
eventContent-Type: application/sdpContent-Disposition: session/handling-requiredContent-Length:
272v=0o=CiscoSystemsSIP-GW-UserAgent 700 6789 IN IP4 10.70.0.50s=SIP Callc=IN IP4 10.70.0.50t=0
0m=audio 16996 RTP/SAVP 0c=IN IP4 10.70.0.50a=crypto:5609 AES_CM_128_HMAC_SHA1_32
inline:2us7kl6Czu0x9r7rgu/hTDaVvW/sPUCeHVgXt4WWa=rtmpmap:0 PCMU/8000a=ptime:20
001256: Mar 20 20:24:33.166: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 289 offset 0
001257: Mar 20 20:24:33.170: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
001258: Mar 20 20:24:33.170: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNNewConnMsg:
context=0x481F3374
001259: Mar 20 20:24:33.170: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x481F3374,
addr=10.70.0.118, port=5061, connid=1, transport=TLS Over TCP
001260: Mar 20 20:24:33.170: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_new_msg_preprocessor: Checking
Invite Dialog
001261: Mar 20 20:24:33.170: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
SIP/2.0 100 TryingTo: <sips:5601111@10.70.0.118>From: <sips:7158634@10.70.0.50>;tag=460158-
4EEVia: SIP/2.0/TLS 10.70.0.50:5061;branch=z9hG4bK3AC4CSeq: 101 INVITECall-ID: 7C5B0377-F5F211DC-
8021DADB-A8450356@10.70.0.50User-Agent: ININ-TsServer/3.0.11.10134Content-Length: 0
001262: Mar 20 20:24:33.170: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_SENT_INVITE, SUBSTATE_NONE) to (STATE_REC'D_PROCEEDING,
SUBSTATE_PROCEEDING_PROCEEDING)
001263: Mar 20 20:24:33.366: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 639 offset 0
001264: Mar 20 20:24:33.366: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
001265: Mar 20 20:24:33.366: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNNewConnMsg:
context=0x481F3374
001266: Mar 20 20:24:33.366: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x481F3374,
addr=10.70.0.118, port=5061, connid=1, transport=TLS Over TCP
```



SRTP with Cisco Gateways

```
001267: Mar 20 20:24:33.370: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_new_msg_preprocessor: Checking
Invite Dialog
001268: Mar 20 20:24:33.370: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
SIP/2.0 200 OKTo: <sips:5601111@10.70.0.118>;tag=38490From: <sips:7158634@10.70.0.50>;tag=460158-
4EEVia: SIP/2.0/TLS 10.70.0.50:5061;branch=z9hG4bK3AC4CSeq: 101 INVITECall-ID: 7C5B0377-F5F211DC-
8021DADB-A8450356@10.70.0.50Contact: <sips:5601111@10.70.0.118:5061;transport=tls>User-Agent:
ININ-TsServer/3.0.11.10134x-inin-crn: 1001116529Content-Type: application/sdpContent-Length:
231v=0o=ININ 613833796 613833796 IN IP4 10.70.0.118s=Interactionc=IN IP4 10.70.0.118t=0 m=audio
49600 RTP/SAVP 0a=rtpmap:0 PCMU/8000a=crypto:5609 AES_CM_128_HMAC_SHA1_32
inline:j5J/R9xNk5Bd5Y+F44KbcEIf7UirxoQW497usok+
001269: Mar 20 20:24:33.370: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIGetContentGTD: No GTD found in
inbound container
001270: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIhandle200OKInvite: Transaction
active. Facilities will be queued.
001271: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIhandle200OKInvite: *** This ccb is
the parent
001272: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Error/sipSPIProcessCallInfoHeader: Call-Info
header with for Unsolicited Notify Absent,Disabling Unsolicited Notifies
001273: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPICompareRespMediaInfo: No Comparision
needed as 18x response SDP is either absent or ignored
001274: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIDoMediaNegotiation: Number of m-
lines = 1
001275: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIDoAudioNegotiation: Codec (g711ulaw)
Negotiation Successful on Static Payload for m-line 1
001276: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIDoPtimeNegotiation: No ptime present
or multiple ptime attributes that can't be handled
001277: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIDoDTMFRelayNegotiation: m-line index
1
001278: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIDoDTMFRelayNegotiation: Requested
DTMF-RELAY option(s) not found in Preferred DTMF-RELAY option list!
001279: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sipSPIStreamTypeAndDtmfRelay: DTMF Relay
mode: Inband Voice
001280: Mar 20 20:24:33.370: //-1/xxxxxxxxxxxx/SIP/Info/sip_sdp_get_modem_relay_cap_params: NSE
payload from X-cap = 0
001281: Mar 20 20:24:33.370: //9/7C56219F8003/SIP/Info/sip_select_modem_relay_params: X-tmr not
present in SDP. Disable modem relay
001282: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Info/sipSPIGetSDPDirectionAttribute: No
direction attribute present or multiple direction attributes that can't be handled for m-line:1
and num-a-lines:0
001283: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Info/sipSPIDoAudioNegotiation: Codec
negotiation successful for media line 1
    payload_type=0, codec_bytes=160, codec=g711ulaw, dtmf_relay=inband-voice
    stream_type=voice-only (0), dest_ip_address=10.70.0.118, dest_port=49600
001284: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/State/sipSPIChangeStreamState: Stream (callid =
-1) State changed from (STREAM_DEAD) to (STREAM_ADDING)
001285: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Media/sipSPIUpdCallWithSdpInfo:
    Preferred Codec      : g711ulaw, bytes :160
    Preferred DTMF relay : inband-voice
    Preferred NTE payload : 101
    Early Media         : No
    Delayed Media       : No
    Bridge Done         : No
    New Media           : No
    DSP DNLD Reqd      : No

001286: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Media/sipSPISetMediaSrcAddr: Media src addr for
stream 1 = 10.70.0.50
001287: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Media/sipSPIUpdCallWithSdpInfo:
    Stream type      : voice-only
    Media line       : 1
    State            : STREAM_ADDING (2)
    Callid          : 9
    Negotiated Codec : g711ulaw, bytes :160
    Nego. Codec payload : 0 (tx), 0 (rx)
    Negotiated DTMF relay : inband-voice
    Negotiated NTE payload : 0 (tx), 0 (rx)
    Negotiated CN payload : 0
```



SRTP with Cisco Gateways

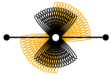
```
Media Srce Addr/Port : 10.70.0.50:16996
Media Dest Addr/Port : 10.70.0.118:49600

001288: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Info/sipSPIProcessMediaChanges:
sipSPIProcessMediaChanges
001289: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Info/sipSPIhandle200KInvite:
ccsip_api_call_connect_media returned: SIP_SUCCESS
001290: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_REC'D_PROCEEDING, SUBSTATE_PROCEEDING_PROCEEDING) to (STATE_REC'D_PROCEEDING,
SUBSTATE_NONE)
001291: Mar 20 20:24:33.374: //-1/xxxxxxxxxxxx/SIP/Info/sipSPICreateRawMsg: No GTD passed.
001292: Mar 20 20:24:33.374: //9/7C56219F8003/CCAPI/cc_api_call_connected:
Interface=0x47ECC34C, Data Bitmask=0x1, Progress Indication=NULL(0),
Connection Handle=0
001293: Mar 20 20:24:33.374: //-1/xxxxxxxxxxxx/CCAPI/cc_set_conf_start_tstamp:
CALL_ERROR_INFORMATIONAL;
001294: Mar 20 20:24:33.374: cc_set_conf_start_tstamp: no confID set - confID:0

001295: Mar 20 20:24:33.374: //9/7C56219F8003/CCAPI/cc_api_call_connected:
Call Entry(Connected=TRUE, Responded=TRUE, Retry Count=0)
001296: Mar 20 20:24:33.374: //9/7C56219F8003/CCAPI/cc_api_call_connected:exit@5399
001297: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Info/sipSPIhandle200KInvite:
ccsip_api_call_connected returned: SIP_SUCCESS
001298: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Transport/sipSPISendAck: Sending ACK to the
transport layer
001299: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Transport/sipSPIGetSwitchTransportFlag: Return
the Dial peer configuration, Switch Transport is FALSE
001300: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
msg=0x48F57CB8, addr=10.70.0.118, port=5061, sentBy_port=0, is_req=1, transport=4, switch=0,
callBack=0x41645624
001301: Mar 20 20:24:33.374: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
Proceedable for sending msg immediately
001302: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: switch
transport is 0
001303: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: Set to send
the msg=0x48F57CB8
001304: Mar 20 20:24:33.378: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostSendMessage: Posting
send for msg=0x48F57CB8, addr=10.70.0.118, port=5061, connId=1 for TLS
001305: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_REC'D_PROCEEDING, SUBSTATE_NONE) to (STATE_ACTIVE, SUBSTATE_NONE)
001306: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Call/sipSPICallInfo:
The Call Setup Information is:
Call Control Block (CCB) : 0x48D1BCB4
State of The Call : STATE_ACTIVE
TCP Sockets Used : YES
Calling Number : 7158634
Called Number : 5601111
Source IP Address (Sig ) : 10.70.0.50
Destn SIP Req Addr:Port : 10.70.0.118:5061
Destn SIP Resp Addr:Port : 10.70.0.118:5061
Destination Name : 10.70.0.118

001307: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Call/sipSPIMediaCallInfo:
Number of Media Streams: 1
Media Stream : 1
Negotiated Codec : g711ulaw
Negotiated Codec Bytes : 160
Nego. Codec payload : 0 (tx), 0 (rx)
Negotiated Dtmf-relay : 0
Dtmf-relay Payload : 0 (tx), 0 (rx)
Source IP Address (Media): 10.70.0.50
Source IP Port (Media): 16996
Destn IP Address (Media): 10.70.0.118
Destn IP Port (Media): 49600
Orig Destn IP Address:Port (Media): 0.0.0.0:0

001308: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Info/sipSPICallActive: Transaction Complete.
Lock on Facilities released.
```

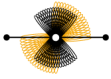


SRTP with Cisco Gateways

```
001309: Mar 20 20:24:33.378: //9/7C56219F8003/SIP/Info/sipSPIFlushEventBufferQueue: There are 0
events on the internal queue that are going to be free'd
001310: Mar 20 20:24:33.378: //8/xxxxxxxxxxxx/CCAPI/ccConferenceCreate:
(confID=0x49165D6C, callID1=0x8, callID2=0x9, tag=0x0)
001311: Mar 20 20:24:33.378: //8/7C56219F8003/CCAPI/ccConferenceCreate:
Conference Id=0x49165D6C, Call Id1=8, Call Id2=9, Tag=0x0
001312: Mar 20 20:24:33.382: //8/xxxxxxxxxxxx/CCAPI/cc_api_bridge_done:
Conference Id=0x2, Source Interface=0x48BE8104, Source Call Id=8,
Destination Call Id=9, Disposition=0x0, Tag=0xFFFFFFFF
001313: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/ccsip_bridge: confID = 2, srcCallID = 9,
dstCallID = 8
001314: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/sipSPIUpdateCcCallIds: Old src/dest
ccCallids: -1/-1, new src/dest ccCallids: 9/8
001315: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/sipSPIUpdateCcCallIds: Old
streamcallid=9, new streamcallid=9
001316: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/ccsip_bridge: xcoder_attached = 0,
xmitFunc = 1100630164, ccb xmitFunc = 1100630164
001317: Mar 20 20:24:33.382: //9/xxxxxxxxxxxx/CCAPI/cc_api_get_xcode_stream:

001318: Mar 20 20:24:33.382: cc_api_get_xcode_stream : 4369
001319: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPIProcessRtpSessions:
sipSPIProcessRtpSessions
001320: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPIAddStream: Adding stream 1 of type
voice-only (callid 9) to the VOIP RTP library
001321: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPISetMediaSrcAddr: Media src addr for
stream 1 = 10.70.0.50
001322: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession:
sipSPIUpdateRtcpSession for m-line 1
001323: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession: rtcp_session
info
laddr = 10.70.0.50, lport = 16996, raddr = 10.70.0.118, rport=49600, do_rtcp=TRUE
src_callid = 9, dest_callid = 8, stream type = voice-only, stream direction = SENDRECV
media_ip_addr = 10.70.0.118, vrf tableid = 0
001324: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Media/sipSPIUpdateRtcpSession: RTP session
already created - update
001325: Mar 20 20:24:33.382: //9/7C56219F8003/CCAPI/cc_api_event_indication:
Event=82, Call Id=9
001326: Mar 20 20:24:33.382: //9/7C56219F8003/CCAPI/cc_api_event_indication:
Event Is Sent To Conferenced SPI(s) Directly
001327: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/sipSPIAddSrtpSession: Adding SRTP session
001328: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/sipSPIAddSrtpSession: SRTP session created
001329: Mar 20 20:24:33.382: //9/7C56219F8003/SIP/Info/sipSPICreateAndStartRtpTimer:
001330: Mar 20 20:24:33.386: //9/7C56219F8003/SIP/Info/sipSPICreateAndStartRtpTimer: Media
Inactivity Timer is disabled.
001331: Mar 20 20:24:33.386: //9/7C56219F8003/SIP/Media/sipSPIGetNewLocalMediaDirection:
New Remote Media Direction = SENDRECV
Present Local Media Direction = SENDRECV
New Local Media Direction = SENDRECV
retVal = 0

001332: Mar 20 20:24:33.386: //9/7C56219F8003/SIP/State/sipSPIChangeStreamState: Stream (callid =
9) State changed from (STREAM_ADDING) to (STREAM_ACTIVE)
001333: Mar 20 20:24:33.386: //9/xxxxxxxxxxxx/CCAPI/cc_api_bridge_done:
Conference Id=0x2, Source Interface=0x47ECC34C, Source Call Id=9,
Destination Call Id=8, Disposition=0x0, Tag=0x0
001334: Mar 20 20:24:33.386: //8/7C56219F8003/CCAPI/cc_generic_bridge_done:
Conference Id=0x2, Source Interface=0x47ECC34C, Source Call Id=9,
Destination Call Id=8, Disposition=0x0, Tag=0x0
001335: Mar 20 20:24:33.386: //8/7C56219F8003/CCAPI/ccConferenceCreate:
Call Entry(Conference Id=0x2, Destination Call Id=9)
001336: Mar 20 20:24:33.386: //9/7C56219F8003/CCAPI/ccConferenceCreate:
Call Entry(Conference Id=0x2, Destination Call Id=8)
001337: Mar 20 20:24:33.386: //8/7C56219F8003/CCAPI/cc_api_caps_ind:
Destination Interface=0x47ECC34C, Destination Call Id=9, Source Call Id=8,
Caps(Codec=0x1, Fax Rate=0x1, Vad=0x1,
Modem=0x0, Codec Bytes=20, Signal Type=3)
001338: Mar 20 20:24:33.386: //8/7C56219F8003/CCAPI/cc_api_caps_ind:
Caps(Playout Mode=1, Playout Initial=60(ms), Playout Min=40(ms),
```

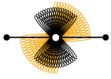


SRTP with Cisco Gateways

```
Playout Max=250(ms), Fax Nom=300(ms))Call Entry(Connected=TRUE, Responded=TRUE)
001367: Mar 20 20:24:33.398: //8/7C56219F8003/CCAPI/cc_api_voice_mode_event:
  Call Id=8
001368: Mar 20 20:24:33.398: //8/7C56219F8003/CCAPI/cc_api_voice_mode_event:
  Call Entry(Context=0x46E6CE08)
001369: Mar 20 20:24:34.254: %ISDN-6-CONNECT: Interface Serial1/0/0:0 is now connected to 7158634
N/A
001370: Mar 20 20:24:37.754: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0/0:0,
changed state to up
001371: Mar 20 20:24:39.518: %ISDN-6-CONNECT: Interface Serial1/0/0:0 is now connected to 7158634
N/A
001372: Mar 20 20:24:41.726: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 1 to dstCallId 0x9
001373: Mar 20 20:24:41.846: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 1 to dstCallId 0x9
001374: Mar 20 20:24:43.474: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 1 to dstCallId 0x9
001375: Mar 20 20:24:43.534: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 1 to dstCallId 0x9
001376: Mar 20 20:24:43.994: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001377: Mar 20 20:24:44.074: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001378: Mar 20 20:24:44.474: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001379: Mar 20 20:24:44.574: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001380: Mar 20 20:24:44.834: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001381: Mar 20 20:24:44.934: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 0 to dstCallId 0x9
001382: Mar 20 20:24:45.294: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_begin:
  Consume mask is not set. Relaying Digit 3 to dstCallId 0x9
001383: Mar 20 20:24:45.354: //8/xxxxxxxxxxxx/CCAPI/cc_api_call_digit_end:
  Consume mask is not set. Relaying Digit 3 to dstCallId 0x9
001384: Mar 20 20:24:55.306: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 431 offset 0
001385: Mar 20 20:24:55.306: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
001386: Mar 20 20:24:55.306: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNewConnMsg:
context=0x481F3374
001387: Mar 20 20:24:55.306: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x481F3374,
addr=10.70.0.118, port=5061, connid=1, transport=TLS Over TCP
001388: Mar 20 20:24:55.306: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
BYE sips:7158634@10.70.0.50:5061;transport=tls SIP/2.0To:
<sips:7158634@10.70.0.50:5061>;tag=460158-4EEFrom: <sips:5601111@10.70.0.118:5061>;tag=38490Call-
ID: 7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50CSeq: 1 BYEVia: SIP/2.0/TLS
10.70.0.118:5061;branch=z9hG4bKfco5a92bff43b9e1c70d72ed2Max-Forwards: 70x-inin-crn:
1001116529Supported: join, replacesUser-Agent: ININ-TsServer/3.0.11.10134Content-Length: 0

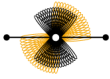
001389: Mar 20 20:24:55.306: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_new_msg_preprocessor: Checking
Invite Dialog
001390: Mar 20 20:24:55.310: //9/7C56219F8003/SIP/Info/sipSPICheckFromToRequest: Found matching
CB 48D1BCB4
001391: Mar 20 20:24:55.310: //9/7C56219F8003/SIP/Info/sipSPILocateInviteDialogCCB: ****Found CCB
in UAC table

001392: Mar 20 20:24:55.310: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Subsq
Transaction Address 10.70.0.118,Port 5061, Transport 4, SentBy Port 5060
001393: Mar 20 20:24:55.310: //-1/xxxxxxxxxxxx/SIP/Info/sipSPISetDateHeader: Converting TimeZone
east to SIP default timezone = GMT
001394: Mar 20 20:24:55.310: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Subsq
Transaction Address 10.70.0.118,Port 5061, Transport 4, SentBy Port 5061
001395: Mar 20 20:24:55.310: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_set_release_source_for_peer:
ownCallId[9], src[4]
001396: Mar 20 20:24:55.310: //8/7C56219F8003/CCAPI/ccGenerateToneInfo:
```



SRTP with Cisco Gateways

```
Stop Tone On Digit=FALSE, Tone=NULL,
Tone Direction=Sum Network, Params=0x0, Call Id=8
001397: Mar 20 20:24:55.310: //9/7C56219F8003/SIP/Info/sipSPIStopHoldTimer: Stopping hold timer
001398: Mar 20 20:24:55.310: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIGetContentGTD: No GTD found in
inbound container
001399: Mar 20 20:24:55.310: //9/7C56219F8003/SIP/Info/sipSPIInitiateDisconnect: Initiate call
disconnect(16) for outgoing call
001400: Mar 20 20:24:55.310: //9/7C56219F8003/CCAPI/cc_api_call_disconnected:
Cause Value=16, Interface=0x47ECC34C, Call Id=9
001401: Mar 20 20:24:55.310: //9/7C56219F8003/CCAPI/cc_api_call_disconnected:
Call Entry(Responded=TRUE, Cause Value=16, Retry Count=0)
001402: Mar 20 20:24:55.310: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_ACTIVE, SUBSTATE_NONE) to (STATE_DISCONNECTING, SUBSTATE_NONE)
001403: Mar 20 20:24:55.310: //8/7C56219F8003/CCAPI/ccConferenceDestroy:
Conference Id=0x2, Tag=0x0
001404: Mar 20 20:24:55.314: //8/xxxxxxxxxxxx/CCAPI/cc_api_bridge_drop_done:
Conference Id=0x2, Source Interface=0x48BE8104, Source Call Id=8,
Destination Call Id=9, Disposition=0x0, Tag=0x0
001405: Mar 20 20:24:55.314: //9/xxxxxxxxxxxx/CCAPI/cc_api_bridge_drop_done:
Conference Id=0x2, Source Interface=0x47ECC34C, Source Call Id=9,
Destination Call Id=8, Disposition=0x0, Tag=0x0
001406: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/cc_generic_bridge_done:
Conference Id=0x2, Source Interface=0x47ECC34C, Source Call Id=9,
Destination Call Id=8, Disposition=0x0, Tag=0x0
001407: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Tag=0x0, Call Entry(Previous Disconnect Cause=0, Disconnect Cause=0)
001408: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/ccCallDisconnect:
Start Calling Accounting;
Call Entry(Incoming=TRUE)
001409: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Disconnect Cause=0)
001410: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Responded=TRUE, Cause Value=16)
001411: Mar 20 20:24:55.314: //8/7C56219F8003/CCAPI/cc_api_get_transfer_info:
Transfer Number Is Null
001412: Mar 20 20:24:55.314: //9/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Tag=0x0, Call Entry(Previous Disconnect Cause=0, Disconnect Cause=16)
001413: Mar 20 20:24:55.314: //9/7C56219F8003/CCAPI/ccCallDisconnect:
Start Calling Accounting;
Call Entry(Incoming=FALSE)
001414: Mar 20 20:24:55.314: //9/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Disconnect Cause=16)
001415: Mar 20 20:24:55.318: //9/7C56219F8003/CCAPI/ccCallDisconnect:
Call Entry(Disconnect Cause=16)
001416: Mar 20 20:24:55.318: //9/7C56219F8003/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Responded=TRUE, Cause Value=16)
001417: Mar 20 20:24:55.318: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SPI : SIPSPI_EV_CC_CALL_DISCONNECT
001418: Mar 20 20:24:55.318: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 3 for event 7
001419: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Info/sipSPISendByeResponse: Associated
container=0x48F80BF0 to Bye Response
001420: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipSPISendByeResponse: Sending BYE
Response to the transport layer
001421: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
msg=0x483A0AAC, addr=10.70.0.118, port=5061, sentBy_port=5061, is_req=0, transport=4, switch=0,
callBack=0x416452B0
001422: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipSPITransportSendMessage:
Proceedable for sending msg immediately
001423: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: switch
transport is 0
001424: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: Trying to
send resp=0x483A0AAC to default port=5061
001425: Mar 20 20:24:55.318: //9/7C56219F8003/SIP/Transport/sipTransportLogicSendMsg: Connection
obtained...sending msg=0x483A0AAC
001426: Mar 20 20:24:55.318: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostSendMessage: Posting
send for msg=0x483A0AAC, addr=10.70.0.118, port=5061, connId=1 for TLS
```



S RTP with Cisco Gateways

```
001427: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/Info/sentByeResponse: Sent 200ok to the BYE,
tearing down the call
001428: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/Info/sipSPIIcpifUpdate: CallState: 4 Payout:
20550 DiscTime:461003 ConnTime 458808
001429: Mar 20 20:24:55.322: //-1/xxxxxxxxxxxx/CCAPI/cc_api_icpif:
ExpectFactor=0xA
001430: Mar 20 20:24:55.322: //-1/7C56219F8003/CCAPI/g113_calculate_impairment:
(delay=79(ms), loss=0%), Io=0 Iq=0 Idte=0 Idd=2 Ie=-1 Itot=1
001431: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/ccCallGetVoipFlag:
Data Bitmask=0x1, Call Id=9
001432: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/ccCallGetVoipFlag:
Flag=FALSE
001433: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_decr_if_call_volume:
Remote IP Address=10.70.0.118, Hwidb=FastEthernet0/1
001434: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_decr_if_call_volume:
Total Call Count=0, Voip Call Count=0, Mmoip Call Count=0
001435: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_api_call_disconnect_done:
Disposition=0, Interface=0x47ECC34C, Tag=0x0, Call Id=9,
Call Entry(Disconnect Cause=16, Voice Class Cause Code=0, Retry Count=0)
001436: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_api_call_disconnect_done:
Call Disconnect Event Sent
001437: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_delete_guid_pod_entry:
Incoming=FALSE
001438: Mar 20 20:24:55.322: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

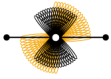
001439: Mar 20 20:24:55.322: :cc_free_feature_vsa freeing 48B959F0
001440: Mar 20 20:24:55.322: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

001441: Mar 20 20:24:55.322: vsacount in free is 1
001442: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_delete_call_entry:
Total Call Count=1, Call Entry(Call Count On=FALSE, Incoming Call=FALSE)
001443: Mar 20 20:24:55.322: //9/7C56219F8003/CCAPI/cc_delete_call_entry:
Deleting profileTable[0x48F91544]
001444: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/State/sipSPIChangeState: 0x48D1BCB4 : State
change from (STATE_DISCONNECTING, SUBSTATE_NONE) to (STATE_DEAD, SUBSTATE_NONE)
001445: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/Call/sipSPICallInfo:
The Call Setup Information is:
Call Control Block (CCB) : 0x48D1BCB4
State of The Call : STATE_DEAD
TCP Sockets Used : YES
Calling Number : 7158634
Called Number : 5601111
Source IP Address (Sig ) : 10.70.0.50
Destn SIP Req Addr:Port : 10.70.0.118:5061
Destn SIP Resp Addr:Port : 10.70.0.118:5061
Destination Name : 10.70.0.118

001446: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/Call/sipSPIMediaCallInfo:
Number of Media Streams: 1
Media Stream : 1
Negotiated Codec : g711ulaw
Negotiated Codec Bytes : 160
Negotiated Codec payload : 0 (tx), 0 (rx)
Negotiated Dtmf-relay : 0
Dtmf-relay Payload : 0 (tx), 0 (rx)
Source IP Address (Media): 10.70.0.50
Source IP Port (Media): 16996
Destn IP Address (Media): 10.70.0.118
Destn IP Port (Media): 49600
Orig Destn IP Address:Port (Media): 0.0.0.0:0

001447: Mar 20 20:24:55.322: //9/7C56219F8003/SIP/Call/sipSPICallInfo:
Disconnect Cause (CC) : 16
Disconnect Cause (SIP) : 200

001448: Mar 20 20:24:55.326: //9/7C56219F8003/SIP/Info/sipSPIUdeleteccCallIdFromTable: Removing
call id 9
```

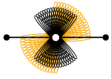
SRTP with Cisco Gateways

```
001449: Mar 20 20:24:55.326: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIDeleteContextFromTable: Context for
key=[12] removed.
001450: Mar 20 20:24:55.326: //9/7C56219F8003/SIP/Info/sipSPIUdeleteCcbFromUACTable: ***Deleting
from UAC table.
001451: Mar 20 20:24:55.326: //9/7C56219F8003/SIP/Info/sipSPIUdeleteCcbFromTable: Deleting from
table. ccb=0x48D1BCB4 key=7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50
001452: Mar 20 20:24:55.326: //9/7C56219F8003/SIP/Info/sipSPIFlushEventBufferQueue: There are 0
events on the internal queue that are going to be free'd
001453: Mar 20 20:24:55.326: //9/7C56219F8003/SIP/Info/sipSPIUfreeOneCCB: Freeing ccb 48D1BCB4
001454: Mar 20 20:24:55.326: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIGetContextFromTable: NO context for
key[12]
001455: Mar 20 20:24:55.326: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPITransportSendMessage: gcb has
cleanedup, Done with send operations for this context
001456: Mar 20 20:24:55.330: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Sent:
SIP/2.0 200 OKVia: SIP/2.0/TLS 10.70.0.118:5061;branch=z9hG4bKfc05a92bff43b9e1c70d72ed2From:
<sips:5601111@10.70.0.118>;tag=38490To: <sips:7158634@10.70.0.50>;tag=460158-4EEDate: Thu, 20 Mar
2008 20:24:55 GMTCall-ID: 7C5B0377-F5F211DC-8021DADB-A8450356@10.70.0.50Server: Cisco-
SIPGateway/IOS-12.xCSeq: 1 BYEReason: Q.850;cause=16Content-Length: 0

001457: Mar 20 20:24:55.334: %ISDN-6-DISCONNECT: Interface Serial1/0/0:0 disconnected from
7158634 , call lasted 21 seconds
001458: Mar 20 20:24:55.526: //8/7C56219F8003/CCAPI/ccCallGetVoipFlag:
Data Bitmask=0x1, Call Id=8
001459: Mar 20 20:24:55.526: //8/7C56219F8003/CCAPI/ccCallGetVoipFlag:
Flag=FALSE
001460: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_api_call_disconnect_done:
Disposition=0, Interface=0x48BE8104, Tag=0x0, Call Id=8,
Call Entry(Disconnect Cause=16, Voice Class Cause Code=0, Retry Count=0)
001461: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_api_call_disconnect_done:
Call Disconnect Event Sent
001462: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_delete_guid_pod_entry:
Incoming=TRUE
001463: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_delete_call_entry:
ccFreeRawMsgInfo=0x48BAB650
001464: Mar 20 20:24:55.530: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

001465: Mar 20 20:24:55.530: :cc_free_feature_vsa freeing 48B95AC8
001466: Mar 20 20:24:55.530: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

001467: Mar 20 20:24:55.530: vsacount in free is 0
001468: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_delete_call_entry:
Total Call Count=1, Call Entry(Call Count On=FALSE, Incoming Call=TRUE)
001469: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_delete_call_entry:
Total Call Count=0
001470: Mar 20 20:24:55.530: //8/7C56219F8003/CCAPI/cc_delete_call_entry:
Deleting profileTable[0x48F928F4]
Delta#
```



SRTP with Cisco Gateways

A working outbound call (SIP to PSTN):

```
003519: Apr  4 20:53:09.916: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_initiate_handshake:
Created a child process 193 for TLS handshake
003520: Apr  4 20:53:09.916: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_initiate_handshake:
Socket: 2 handed off to child socket 0
003521: Apr  4 20:53:09.916: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_initiate_handshake:
SIPCTX passed to the child process 193
003522: Apr  4 20:53:09.916: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
child proc: Local socket fd 0
003523: Apr  4 20:53:09.916: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
Associated socket 0 in child proc
003524: Apr  4 20:53:09.920: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
Entering HANDSHAKE sip_ctx 0x490665D8 p_index 2
003525: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
Exiting HANDSHAKE sip_ctx 0x490665D8 p_index 2
003526: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
Socket: 0 handed off to parent socket 2
003527: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Info/sip_tcp_tls_handshake_success:
  In sip_tcp_tls_handshake_success
003528: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Info/sip_tcp_tls_handshake_success:
  Out sip_tcp_tls_handshake_success
003529: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_handshake_proc:
Helper: Closing child socket fd: 0
003530: Apr  4 20:53:11.028: / 4 20:53:11.032: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x482D86F4,
addr=10.70.0.122, port=3143, connid=2, transport=TLS Over TCP/-1/xxxxxxxxxxxx/SIP/Info/ccsip_
003538: Apr  4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
INVITE sips:5151234@10.70.0.50:5061;transport=tls SIP/2.0

To: <sips:5151234@qexp.com:5061>

From: "batmanadmin" <sips:5151111:5061>;tag=563

Via: SIP/2.0/TLS 10.70.0.122:5061;branch=z9hG4bK7fc3beefe29ec32af2569d0e0

Call-ID: f7c7c0ff9849c6e0b01674efa7415901@10.70.0.122

CSeq: 1 INVITE

Contact: <sips:10.70.0.122:5061;transport=tls>

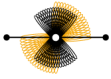
Max-Forwards: 70

x-inin-crn: 1002001614

Supported: join, replaces

User-Agent: ININ-TsServer/2.4.0.0

Allow: INVITE, BYE, ACK, CANCEL, OPTIONS, REFER, SUBSCRIBE, NOTIFY,
MESSprocess_sipspi_queue_event: ccsip_spi_get_msg_type returned: 2 for event 54
003531: Apr  4 20:53:11.028: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNewConnMsg:
context=0x00000000
003532: Apr  4 20:53:11.028: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x482D86F4,
addr=10.70.0.122, port=3143, connid=2, transport=TLS Over TCP
003533: Apr  4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Transport/sipCreateConnInstance: Created new
acctpd conn=0x47C4AD58, connid=2, addr=10.70.0.122, port=3143, transport=TLS Over TCP
003534: Apr  4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 910 offset 0
003535: Apr  4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
003536: Apr  4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNewConnMsg:
context=0x00000000
```



SRTP with Cisco Gateways

003537: AprAGE, INFO

Accept: application/sdp

Accept-Encoding: identity

Content-Type: application/sdp

Content-Length: 281

v=0

o=ININ 13548125 13548125 IN IP4 10.70.0.122

s=Interaction

c=IN IP4 10.60.0.104

t=0 0

m=audio 2246 RTP/SAVP 0 101

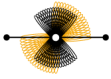
a=rtpmap:0 PCMU/8000

a=rtpmap:101 telephone-event/8000

a=crypto:1 AES_CM_128_HMAC_SHA1_32 inline:lZ2Qf+ipFGzfPkxTGncgvuN0c+/KFuc4ZyfPq/zF

a=fmtp:101 0-15

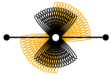
003539: Apr 4 20:53:11.032: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_new_msg_preprocessor: Checking Invite Dialog
003540: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIAddContextToTable: Added context(0x48E23450) with key=[27] to table
003541: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Dialog Transaction Address 10.70.0.122,Port 3143, Transport 4, SentBy Port 5061
003542: Apr 4 20:53:11.036: //-1/F87DEDB9807B/SIP/State/sipSPIChangeState: 0x48E23450 : State change from (STATE_NONE, SUBSTATE_NONE) to (STATE_IDLE, SUBSTATE_NONE)
003543: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Dialog Transaction Address 10.70.0.122,Port 3143, Transport 4, SentBy Port 5060
003544: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Info/sipSPISetDateHeader: Converting TimeZone east to SIP default timezone = GMT
003545: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Transport/sipSPIUpdateResponseInfo: Dialog Transaction Address 10.70.0.122,Port 3143, Transport 4, SentBy Port 5061
003546: Apr 4 20:53:11.036: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIGetContentGTD: No GTD found in inbound container
003547: Apr 4 20:53:11.036: //-1/F87DEDB9807B/SIP/Info/sipSPIUaddCcbToUASReqTable: ***Adding to UAS Request table.
003548: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIUaddCcbToTable: Added to table. ccb=0x48E23450 key=f7c7c0ff9849c6e0b01674efa7415901@10.70.0.1225151234
003549: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIMatchSrcIpGroup: Match not found on carrier id
003550: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIMatchSrcIpGroup: Match not found on Incoming called number: 5151234
003551: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIMatchSrcIpGroup: Match not found on destination pattern:
003552: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/ccsipUpdateIncomingCallParams: ccCallInfo: Calling name batmanadmin, number , Calling oct3 0x00, oct_3a 0x00, Called number 5151234
003553: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIGetCallConfig: Precondition tag absent in Require/Supported header
003554: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIGetCallConfig: Peer tag 301 matched for incoming call
003555: Apr 4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIGetCallConfig: Not using Voice Class Codec



SRTP with Cisco Gateways

```
003556: Apr  4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIContinueNewMsgInvite: Calling name
batmanadmin, number , Calling oct3 0x00, oct_3a 0x80, ext_priv 0x00, Called number 5151234, oct3
0x00
003557: Apr  4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIContinueNewMsgInvite: Carrier id
code , prev_cid NONE, next_cid NONE, prev_tgrp NONE, next_tgrp NONE
003558: Apr  4 20:53:11.040: //-1/F87DEDB9807B/SIP/Info/sipSPIRscmsmAvail: Value returned by
check is = 0
003559: Apr  4 20:53:11.040: //52/F87DEDB9807B/SIP/Error/sipSPIProcessCallInfoHeader: Call-Info
header with for Unsolicited Notify Absent,Disabling Unsolicited Notices
003560: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoMediaNegotiation: Number of m-
lines = 1
003561: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoAudioNegotiation: Codec
(g711ulaw) Negotiation Successful on Static Payload for m-line 1
003562: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoPtimeNegotiation: No ptime
present or multiple ptime attributes that can't be handled
003563: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoDTMFRelayNegotiation: m-line
index 1
003564: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPICheckDynPayloadUse: Dynamic
payload(101) could not be reserved.
003565: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoDTMFRelayNegotiation: RTP-NTE
DTMF relay option
003566: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoDTMFRelayNegotiation: Case of
partial named event(NE) match in fmtpl list of events.
003567: Apr  4 20:53:11.044: //-1/xxxxxxxxxxxx/SIP/Info/sip_sdp_get_modem_relay_cap_params: NSE
payload from X-cap = 0
003568: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sip_select_modem_relay_params: X-tmr not
present in SDP. Disable modem relay
003569: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIGetSDPDirectionAttribute: No
direction attribute present or multiple direction attributes that can't be handled for m-line:1
and num-a-lines:0
003570: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPIDoAudioNegotiation: Codec
negotiation successful for media line 1
      payload_type=0, codec_bytes=160, codec=g711ulaw, dtmf_relay=rtp-nte
      stream_type=voice+dtmf (1), dest_ip_address=10.60.0.104, dest_port=2246
003571: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/State/sipSPIChangeStreamState: Stream (callid
-1) State changed from (STREAM_DEAD) to (STREAM_ADDING)
003572: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Media/sipSPIUpdCallWithSdpInfo:
      Preferred Codec      : g711ulaw, bytes :160
      Preferred DTMF relay  : sip-notify
      Preferred NTE payload  : 101
      Early Media           : No
      Delayed Media         : No
      Bridge Done           : No
      New Media             : No
      DSP DNLD Reqd        : No

003573: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Media/sipSPISetMediaSrcAddr: Media src addr
for stream 1 = 10.70.0.50
003574: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_report_media_to_peer:
      callid 52 peer 0 flags 0x201
003575: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
CallID 52, sdp 0x46ECC9A0 channels 0x48E24520
003576: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/copy_channels:
      callId 52 size 0 ptr 0x47EEE19C)
003577: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
Hndl ptype 0 mline 1
003578: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
Selecting codec g711ulaw
003579: Apr  4 20:53:11.044: //-1/xxxxxxxxxxxx/SIP/Info/convert_codec_bytes_to_ptime: Values
:Codec: g711ulaw codecbytes :160, ptime: 20
003580: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
Media negotiation done: stream->negotiated_ptime=0,stream->negotiated_codec_bytes=160, covered
ptime=20 stream->mline_index=1, media_ndx=1
003581: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Error/sipSPI_ipip_copy_sdp_to_channelInfo:
failed to update call entry
003582: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
Adding codec 5 ptype 0 time 20, bytes 160 as channel 0 mline 1 ss 0 10.60.0.104:2246
003583: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
```



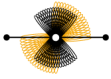
SRTP with Cisco Gateways

```
Hndl ptype 101 mline 1
003584: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_copy_sdp_to_channelInfo:
setting ipip_caps DTMF to RFC2833: callid = 52, dtmf = 6
003585: Apr  4 20:53:11.044: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_report_media_to_peer:
Report initial call media
003586: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/copy_channels:
  callid 52 size 108 ptr 0x492B3B98)
003587: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_report_media_to_peer:
CCSIP: Unable to report channel ind
003588: Apr  4 20:53:11.048: //52/xxxxxxxxxxxxx/CCAPI/cc_api_caps_ind:
  Call Entry Is Not Found
003589: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Media/sipSPIUpdCallWithSdpInfo:
  Stream type           : voice+dtmf
  Media line            : 1
  State                 : STREAM_ADDING (2)
  Callid                : -1
  Negotiated Codec      : g711ulaw, bytes :160
  Nego. Codec payload   : 0 (tx), 0 (rx)
  Negotiated DTMF relay : rtp-nte
  Negotiated NTE payload : 101 (tx), 101 (rx)
  Negotiated CN payload : 0
  Media Srce Addr/Port  : 10.70.0.50:0
  Media Dest Addr/Port  : 10.60.0.104:2246

003590: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIHandleInviteMedia:
Negotiated Codec      : g711ulaw, bytes :160
Preferred Codec       : g711ulaw, bytes :160
Preferred DTMF relay 1 : 8
Preferred DTMF relay 2 : 6
Negotiated DTMF relay : 6
Preferred and Negotiated NTE payloads: 101 101
Preferred and Negotiated NSE payloads: 100 0
Preferred and Negotiated Modem Relay: 0 0
Preferred and Negotiated Modem Relay GwXid: 1 0

003591: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIDoQoSNegotiation: SDP body with
media description
003592: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPICanSetFallbackFlag: Local Fallback
is not active
003593: Apr  4 20:53:11.048: //-1/xxxxxxxxxxxxx/SIP/Media/sipSPIReserveRtpPort: reserved port
16540 for stream 1
003594: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIUpdateSrcSdpFixedPart: Reserving
rtp port for stream 1, src_port=16540
003595: Apr  4 20:53:11.048: //-1/xxxxxxxxxxxxx/SIP/Info/sipSPISetMediaDirectionForStream: Setting
Media direction SENDRECV for stream 1
003596: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIUpdateSrcSdpVariablePart: Setting
stream 1 portnum to 16540
003597: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIUpdateSrcSdpVariablePart:
Negotiated method of dtmf relayand pyld: 6 101

003598: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPIAddBillingInfoToCcb: sipCallId for
billing records = f7c7c0ff9849c6e0b01674efa7415901@10.70.0.122
003599: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_store_channel_info: Store
channelInfo in CallInfo
003600: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/sipSPI_ipip_store_channel_info: dtmf
negotiation done, storing negotiated dtmf = 6,
003601: Apr  4 20:53:11.048: //-1/xxxxxxxxxxxxx/SIP/Info/sipSPICreateRawMsg: No GTD passed.
003602: Apr  4 20:53:11.048: //52/F87DEDB9807B/SIP/Info/ccsip_set_bearer_capability:
  Bearer Capability: Speech (0x00)
003603: Apr  4 20:53:11.048: //-1/F87DEDB9807B/CCAPI/cc_api_display_ie_subfields:
  cc_api_call_setup_ind_common:
  cisco-username=
  ----- ccCallInfo IE subfields -----
  cisco-ani=
  cisco-anitype=0
  cisco-aniplan=0
  cisco-anipi=0
  cisco-anisi=0
```



SRTP with Cisco Gateways

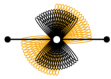
```
dest=5151234
cisco-desttype=0
cisco-destplan=0
cisco-rdie=FFFFFFF
cisco-rdn=
cisco-rdntype=0
cisco-rdnplan=0
cisco-rdnpi=-1
cisco-rdnpi=-1
cisco-rdnpi=-1
cisco-redirectreason=-1 fwd_final_type =0
final_redirectNumber =
hunt_group_timeout =0

003604: Apr  4 20:53:11.052: //-1/F87DEDB9807B/CCAPI/cc_api_call_setup_ind_common:
Interface=0x47FB16CC, Call Info(
Calling Number=(Calling Name)=(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed),
Called Number=5151234(TON=Unknown, NPI=Unknown),
Calling Translated=FALSE, Subscriber Type Str=Unknown, FinalDestinationFlag=TRUE,
Incoming Dial-peer=301, Progress Indication=NULL(0), Calling IE Present=FALSE,
Source Trkgrp Route Label=, Target Trkgrp Route Label=, CLID Transparent=FALSE), Call Id=52
003605: Apr  4 20:53:11.052: //-1/F87DEDB9807B/CCAPI/ccCheckClipClir:
In: Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed)
003606: Apr  4 20:53:11.052: //-1/F87DEDB9807B/CCAPI/ccCheckClipClir:
Out: Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed)
003607: Apr  4 20:53:11.052: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003608: Apr  4 20:53:11.052: :cc_get_feature_vsa malloc success
003609: Apr  4 20:53:11.052: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003610: Apr  4 20:53:11.052: cc_get_feature_vsa count is 1
003611: Apr  4 20:53:11.052: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003612: Apr  4 20:53:11.052: :FEATURE_VSA attributes are:
feature_name:0,feature_time:1221045248,feature_id:45
003613: Apr  4 20:53:11.052: //52/F87DEDB9807B/CCAPI/cc_api_call_setup_ind_common:
Set Up Event Sent;
Call Info(Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed),
Called Number=5151234(TON=Unknown, NPI=Unknown))
003614: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Info/sipSPIContinueNewMsgInvite:
ccsip_api_call_setup_ind returned: SIP_SUCCESS
003615: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Info/sipSPIUaddccCallIdToTable: Adding call id
34 to table
003616: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Info/addAllowHeaderKpml: KPML Subscriptions
allowed.
003617: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Transport/sipSPITransportSendMessage:
msg=0x492B2D1C, addr=10.70.0.122, port=3143, sentBy_port=5061, is_req=0, transport=4, switch=0,
callBack=0x00000000
003618: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Transport/sipSPITransportSendMessage:
Proceedable for sending msg immediately
003619: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/Transport/sipTransportLogicSendMsg: switch
transport is 0
003620: Apr  4 20:53:11.052: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostSendMessage: Posting
send for msg=0x492B2D1C, addr=10.70.0.122, port=3143, connId=2 for TLS
003621: Apr  4 20:53:11.052: //52/F87DEDB9807B/SIP/State/sipSPIChangeState: 0x48E23450 : State
change from (STATE_IDLE, SUBSTATE_NONE) to (STATE_REC'D_INVITE, SUBSTATE_NONE)
003622: Apr  4 20:53:11.056: //52/F87DEDB9807B/SIP/Info/sipSPIProcessContactInfo: Previous Hop
10.70.0.122:5061
003623: Apr  4 20:53:11.056: //52/F87DEDB9807B/CCAPI/cc_process_call_setup_ind:
Event=0x48C8A618
003624: Apr  4 20:53:11.056: //52/F87DEDB9807B/CCAPI/ccCallSetContext:
Context=0x49205D38
003625: Apr  4 20:53:11.056: //52/F87DEDB9807B/CCAPI/cc_process_call_setup_ind:
>>>>CCAPI handed cid 52 with tag 301 to app "_ManagedAppProcess_Default"
003626: Apr  4 20:53:11.056: //52/F87DEDB9807B/CCAPI/ccCallProceeding:
Progress Indication=NULL(0)
```



SRTP with Cisco Gateways

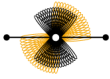
```
003627: Apr  4 20:53:11.056: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SPI : SIPSPI_EV_CC_CALL_PROCEEDING
003628: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccCallSetupRequest:
  Destination=, Calling IE Present=FALSE, Mode=0,
  Outgoing Dial-peer=99, Params=0x49204F10, Progress Indication=NULL(0)
003629: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccCheckClipClir:
  In: Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed)
003630: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccCheckClipClir:
  Out: Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed)
003631: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccCallSetupRequest:
  Destination Pattern=.T, Called Number=5151234, Digit Strip=TRUE
003632: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccCallSetupRequest:
  Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed),
  Called Number=5151234(TON=Unknown, NPI=Unknown),
  Redirect Number=, Display Info=batmanadmin
  Account Number=, Final Destination Flag=TRUE,
  Guid=F87DEDB9-01BF-11DD-807B-C0FF951B97FA, Outgoing Dial-peer=99
003633: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/cc_api_display_ie_subfields:
ccCallSetupRequest:
cisco-username=
----- ccCallInfo IE subfields -----
cisco-ani=
cisco-anitype=0
cisco-aniplan=0
cisco-anipi=0
cisco-anisi=0
dest=5151234
cisco-desttype=0
cisco-destplan=0
cisco-rdie=FFFFFFFF
cisco-rdn=
cisco-rdntype=0
cisco-rdnplan=0
cisco-rdnpi=-1
cisco-rdnsi=-1
cisco-redirectreason=-1   fwd_final_type = 0
final_redirectNumber =
hunt_group_timeout = 0

003634: Apr  4 20:53:11.060: //52/F87DEDB9807B/CCAPI/ccIFCallSetupRequestPrivate:
  Interface=0x48CCD19C, Interface Type=6, Destination=, Mode=0x0,
  Call Params(Calling Number=,(Calling Name=batmanadmin)(TON=Unknown, NPI=Unknown, Screening=Not
Screened, Presentation=Allowed),
  Called Number=5151234(TON=Unknown, NPI=Unknown), Calling Translated=FALSE,
  Subscriber Type Str=Unknown, FinalDestinationFlag=TRUE, Outgoing Dial-peer=99, Call Count
On=FALSE,
  Source Trkgrp Route Label=, Target Trkgrp Route Label=, tg_label_flag=0, Application Call Id=)
003635: Apr  4 20:53:11.060: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003636: Apr  4 20:53:11.060: :cc_get_feature_vsa malloc success
003637: Apr  4 20:53:11.060: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003638: Apr  4 20:53:11.060: cc_get_feature_vsa count is 2
003639: Apr  4 20:53:11.060: //-1/xxxxxxxxxxxx/CCAPI/cc_get_feature_vsa:

003640: Apr  4 20:53:11.060: :FEATURE_VSA attributes are:
feature_name:0,feature_time:1221045032,feature_id:46
003641: Apr  4 20:53:11.064: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler:
003642: Apr  4 20:53:11.064: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler: switch(ev.ev_id:
147)
003643: Apr  4 20:53:11.064: //52/F87DEDB9807B/SIP/Info/ccsip_event_handler:
ccsip_event_handler: peer ID 53 chans 0x46F38688 event 147 flags 0x40001C 0x100 0x601 data
0x46F38688
003644: Apr  4 20:53:11.064: //52/F87DEDB9807B/SIP/Info/ccsip_event_handler:
ccsip_event_handler: CC_EV_H245_SET_MODE: peer ID 53 chans 0x46F38688 event 147 flags 0x40001C
0x100 0x601 data 0x46F38688, type = 1
003645: Apr  4 20:53:11.064: //52/F87DEDB9807B/SIP/Info/ccsip_gw_set_sipspi_mode: Setting SPI
mode to SIP-TDM
```



S RTP with Cisco Gateways

```
003646: Apr  4 20:53:11.064: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler:
CC_R_SUCCESS_WITH_CONFIRMED
003647: Apr  4 20:53:11.064: //53/F87DEDB9807B/CCAPI/ccIFCallSetupRequestPrivate:
  SPI Call Setup Request Is Success; Interface Type=6, FlowMode=1
003648: Apr  4 20:53:11.064: //53/F87DEDB9807B/CCAPI/ccCallSetContext:
  Context=0x49204EC0
003649: Apr  4 20:53:11.064: //52/F87DEDB9807B/CCAPI/ccSaveDialpeerTag:
  Outgoing Dial-peer=99
003650: Apr  4 20:53:11.064: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 3 for event 3
003651: Apr  4 20:53:11.072: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Sent:
SIP/2.0 100 Trying

Via: SIP/2.0/TLS 10.70.0.122:5061;branch=z9hG4bK7fc3beefe29ec32af2569d0e0

From: "batmanadmin" <sips:5151111:5061>;tag=563

To: <sips:5151234@qexp.com:5061>

Date: Fri, 04 Apr 2008 20:53:11 GMT

Call-ID: f7c7c0ff9849c6e0b01674efa7415901@10.70.0.122

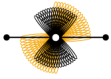
Server: Cisco-SIPGateway/IOS-12.x

CSeq: 1 INVITE

Allow-Events: kpml, telephone-event

Content-Length: 0

003652: Apr  4 20:53:11.188: //53/F87DEDB9807B/CCAPI/cc_api_call_proceeding:
  Interface=0x48CCD19C, Progress Indication=NULL(0)
003653: Apr  4 20:53:11.188: //53/F87DEDB9807B/CCAPI/cc_api_event_indication:
  Event=139, Call Id=53
003654: Apr  4 20:53:11.188: //53/F87DEDB9807B/CCAPI/cc_api_event_indication:
  Event Is Sent To Conferenced SPI(s) Directly
003655: Apr  4 20:53:11.188: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler:
003656: Apr  4 20:53:11.188: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler: switch(ev.ev_id:
139)
003657: Apr  4 20:53:11.188: //52/F87DEDB9807B/SIP/Info/ccsip_srtp_process_veena_event: Received
SRTP Veena event
003658: Apr  4 20:53:11.188: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_event_handler:
CC_R_SUCCESS_WITH_CONFIRMED
003659: Apr  4 20:53:11.220: //53/F87DEDB9807B/CCAPI/cc_api_call_alert:
  Interface=0x48CCD19C, Progress Indication=INBAND(8), Signal Indication=SIGNAL RINGBACK(1)
003660: Apr  4 20:53:11.220: //53/F87DEDB9807B/CCAPI/cc_api_call_alert:
  Call Entry(Retry Count=0, Responded=TRUE)
003661: Apr  4 20:53:11.220: //52/F87DEDB9807B/CCAPI/ccCallAlert:
  Progress Indication=INBAND(8), Signal Indication=SIGNAL RINGBACK(1)
003662: Apr  4 20:53:11.220: //52/F87DEDB9807B/CCAPI/ccCallAlert:
  Call Entry(Responded=TRUE, AlertSent=TRUE)
003663: Apr  4 20:53:11.220: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SPI : SIPSPI_EV_CC_CALL_ALERTING
003664: Apr  4 20:53:11.224: //52/F87DEDB9807B/CCAPI/ccCallNotify:
  Data Bitmask=0x7, Call Id=52
003665: Apr  4 20:53:11.224: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SPI : SIPSPI_EV_CC_MEDIA_EVENT
003666: Apr  4 20:53:11.224: //52/xxxxxxxxxxxx/CCAPI/ccConferenceCreate:
(confID=0x49277E5C, callID1=0x34, callID2=0x35, tag=0x0)
003667: Apr  4 20:53:11.224: //52/F87DEDB9807B/CCAPI/ccConferenceCreate:
  Conference Id=0x49277E5C, Call Id1=52, Call Id2=53, Tag=0x0
```

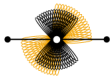



SRTP with Cisco Gateways

```
003668: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Info/ccsip_bridge: confID = 16, srcCallID =
52, dstCallID = 53
003669: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPICheckDSPForSRTP: remote srtp
negotiated, dsp supported
003670: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Info/sipSPIUpdateCcCallIds: Old src/dest
ccCallIds: -1/-1, new src/dest ccCallIds: 52/53
003671: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Info/sipSPIUpdateCcCallIds: Old
streamcallid=-1, new streamcallid=52
003672: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Info/ccsip_bridge: xcoder_attached = 0,
xmitFunc = 1100630164, ccb xmitFunc = 1100630164
003673: Apr  4 20:53:11.224: //52/xxxxxxxxxxxx/CCAPI/cc_api_get_xcode_stream:

003674: Apr  4 20:53:11.224: cc_api_get_xcode_stream : 4369
003675: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPIProcessRtpSessions:
sipSPIProcessRtpSessions
003676: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPIAddStream: Adding stream 1 of type
voice+dtmf (callid 52) to the VOIP RTP library
003677: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPISetMediaSrcAddr: Media src addr
for stream 1 = 10.70.0.50
003678: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPIUpdateRtcpSession:
sipSPIUpdateRtcpSession for m-line 1
003679: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPIUpdateRtcpSession: rtcp_session
info
    laddr = 10.70.0.50, lport = 16540, raddr = 10.60.0.104, rport=2246, do_rtcp=TRUE
    src_callid = 52, dest_callid = 53, stream type = voice+dtmf, stream direction = SENDRECV
    media_ip_addr = 10.60.0.104, vrf tableid = 0
003680: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Media/sipSPIUpdateRtcpSession: No rtp session,
creating a new one
003681: Apr  4 20:53:11.224: //52/F87DEDB9807B/CCAPI/cc_api_event_indication:
Event=82, Call Id=52
003682: Apr  4 20:53:11.224: //52/F87DEDB9807B/CCAPI/cc_api_event_indication:
Event Is Sent To Conferenced SPI(s) Directly
003683: Apr  4 20:53:11.224: //52/F87DEDB9807B/SIP/Info/sipSPIAddSrtpSession: Adding SRTP session
003684: Apr  4 20:53:11.228: //52/F87DEDB9807B/SIP/Info/sipSPIAddSrtpSession: SRTP session
created
003685: Apr  4 20:53:11.228: //52/F87DEDB9807B/SIP/Media/sipSPIGetNewLocalMediaDirection:
New Remote Media Direction = SENDRECV
Present Local Media Direction = SENDRECV
New Local Media Direction = SENDRECV
retVal = 0

003686: Apr  4 20:53:11.228: //52/F87DEDB9807B/SIP/State/sipSPIChangeStreamState: Stream (callid
= 52) State changed from (STREAM_ADDING) to (STREAM_ACTIVE)
003687: Apr  4 20:53:11.228: //52/xxxxxxxxxxxx/CCAPI/cc_api_bridge_done:
Conference Id=0x10, Source Interface=0x47FB16CC, Source Call Id=52,
Destination Call Id=53, Disposition=0x0, Tag=0x0
003688: Apr  4 20:53:11.228: //53/xxxxxxxxxxxx/CCAPI/cc_api_bridge_done:
Conference Id=0x10, Source Interface=0x48CCD19C, Source Call Id=53,
Destination Call Id=52, Disposition=0x0, Tag=0xFFFFFFFF
003689: Apr  4 20:53:11.228: //52/F87DEDB9807B/CCAPI/cc_generic_bridge_done:
Conference Id=0x10, Source Interface=0x48CCD19C, Source Call Id=53,
Destination Call Id=52, Disposition=0x0, Tag=0xFFFFFFFF
003690: Apr  4 20:53:11.228: //52/F87DEDB9807B/CCAPI/ccConferenceCreate:
Call Entry(Conference Id=0x10, Destination Call Id=53)
003691: Apr  4 20:53:11.228: //53/F87DEDB9807B/CCAPI/ccConferenceCreate:
Call Entry(Conference Id=0x10, Destination Call Id=52)
003692: Apr  4 20:53:11.228: //53/F87DEDB9807B/CCAPI/cc_api_caps_ind:
Destination Interface=0x47FB16CC, Destination Call Id=52, Source Call Id=53,
Caps(Codec=0x1, Fax Rate=0x1, Vad=0x1,
Modem=0x0, Codec Bytes=20, Signal Type=3)
003693: Apr  4 20:53:11.232: //53/F87DEDB9807B/CCAPI/cc_api_caps_ind:
Caps(Playout Mode=1, Playout Initial=60(ms), Playout Min=40(ms),
Playout Max=250(ms), Fax Nom=300(ms))
003694: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_get_rtcp_session_parameters:
CURRENT VALUES: stream_callid=52, current_seq_num=0xB5C
003695: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_get_rtcp_session_parameters: NEW
VALUES: stream_callid=52, current_seq_num=0x1377
```



SRTP with Cisco Gateways

```
003696: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_caps_ind: Load DSP with negotiated
codec: g711ulaw, Bytes=160
003697: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_caps_ind: Set forking flag to 0x0
003698: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sipSPISetDTMFRelayMode: Set DSP for dtmf-
relay = CC_CAP_DTMF_RELAY_NTE_AND_OOB with rx payload = 101, tx payload = 101
003699: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_set_modem_caps: Preferred (or the one
that came from DSM) modem relay=0, from CLI config=0
003700: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_set_modem_caps: Disabling Modem
Relay...
003701: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_generate_sdp_xcaps_list: Modem Relay
and T38 disabled. X-cap not needed
003702: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_set_modem_caps: Negotiation already
Done. Set negotiated Modem caps and generate SDP Xcap list
003703: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_set_modem_caps: Modem Relay &
Passthru both disabled
003704: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/sip_set_modem_caps: nse payload = 0, ptru
mode = 0, ptru-codec=0, redundancy=0, xid=0, relay=0, sprt-retry=12, latecncy=200, compres-dir=3,
dict=1024, strlen=32
003705: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sip_set_srtp_in_caps: Setting SRTP for
caps exchange
003706: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sipSPISetStreamInfo: 1 Active Streams
003707: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sipSPISetStreamInfo: Adding stream type
(voice+dtmf) from media line 1
003708: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sipSPISetStreamInfo:
caps.stream_count=1,caps.stream[0].stream_type=0x2, caps.stream_list.xmitFunc=
003709: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sipSPISetStreamInfo: voip_rtp_xmit,
caps.stream_list.context=
003710: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Media/sipSPISetStreamInfo: 0x46E5B420 (gccb)
003711: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_caps_ind: Load DSP with codec :
g711ulaw, Bytes=160, payload = 0
003712: Apr  4 20:53:11.232: //52/F87DEDB9807B/SIP/Info/ccsip_caps_ind: ccsip_caps_ind: ccb-
>pld.flags_ipip = 0x603
003713: Apr  4 20:53:11.232: //52/F87DEDB9807B/CCAPI/cc_api_caps_ind:
  Destination Interface=0x48CCD19C, Destination Call Id=53, Source Call Id=52,
  Caps(Codec=0x1, Fax Rate=0x2, Vad=0x1,
  Modem=0x0, Codec Bytes=160, Signal Type=2)
003714: Apr  4 20:53:11.232: //52/F87DEDB9807B/CCAPI/cc_api_caps_ind:
  Caps(Playout Mode=1, Playout Initial=60(ms), Playout Min=40(ms),
  Playout Max=250(ms), Fax Nom=300(ms))
003715: Apr  4 20:53:11.232: //52/F87DEDB9807B/CCAPI/cc_api_caps_ack:
  Destination Interface=0x48CCD19C, Destination Call Id=53, Source Call Id=52,
  Caps(Codec=g711ulaw(0x1), Fax Rate=FAX_RATE_VOICE(0x2), Vad=OFF(0x1),
  Modem=OFF(0x0), Codec Bytes=160, Signal Type=2, Seq Num Start=4984)
003716: Apr  4 20:53:11.232: //53/F87DEDB9807B/CCAPI/cc_api_caps_ack:
  Destination Interface=0x47FB16CC, Destination Call Id=52, Source Call Id=53,
  Caps(Codec=g711ulaw(0x1), Fax Rate=FAX_RATE_VOICE(0x2), Vad=OFF(0x1),
  Modem=OFF(0x0), Codec Bytes=160, Signal Type=2, Seq Num Start=4984)Call
Entry(Context=0x49204EC0)pported: replaces

Content-Type: application/sdp

Content-Disposition: session;handling=required

Content-Length: 314

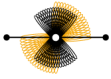
v=0

o=CiscoSystemsSIP-GW-UserAgent 2392 3481 IN IP4 10.70.0.50

s=SIP Call

c=IN IP4 10.70.0.50

t=0 0
```



SRTP with Cisco Gateways

```
m=audio 16540 RTP/SAVP 0 101

c=IN IP4 10.70.0.50

a=rtpmap:0 PCMU/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-16

a=crypto:1 AES_CM_128_HMAC_SHA1_32 inline:flXf0loeMdsjvUi5dQCao6K31CBRvM7LjFOcg+0J

003759: Apr  4 20:53:12.212: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 423 offset 0
003760: Apr  4 20:53:12.212: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
003761: Apr  4 20:53:12.212: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNewConnMsg:
context=0x00000000
003762: Apr  4 20:53:12.212: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x482D86F4,
addr=10.70.0.122, port=3143, connid=2, transport=TLS Over TCPpported: replaces

Content-Type: application/sdp

Content-Length: 329

v=0

o=CiscoSystemsSIP-GW-UserAgent 2392 3481 IN IP4 10.70.0.50

s=SIP Call

c=IN IP4 10.70.0.50

t=0 0

m=audio 16540 RTP/SAVP 0 101

c=IN IP4 10.70.0.50

a=rtpmap:0 PCMU/8000

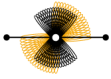
a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-16

a=ptime:20

a=crypto:7357 AES_CM_128_HMAC_SHA1_32 inline:flXf0loeMdsjvUi5dQCao6K31CBRvM7LjFOcg+0J

003818: Apr  4 20:53:12.452: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 740 offset 0
003819: Apr  4 20:53:12.452: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1Destination Interface=0x47FB16CC, Destination Call
Id=52, Source Call Id=53,
  Caps(Codec=g711ulaw(0x1), Fax Rate=FAX_RATE_VOICE(0x2), Vad=OFF(0x1),
  Modem=OFF(0x0), Codec Bytes=160, Signal Type=2, Seq Num Start=60)
003888: Apr  4 20:53:12.468: //52/F87DEDB9807B/SIP/Info/ccsip_caps_ack: Set forking flag to 0x0
003889: Apr  4 20:53:13.188: //53/F87DEDB9807B/CCAPI/cc_api_voice_mode_event:
  Call Id=53
003890: Apr  4 20:53:13.188: //53/F87DEDB9807B/CCAPI/cc_api_voice_mode_event:
  Call Entry(Context=0x49204EC0)
003891: Apr  4 20:53:17.296: %ISDN-6-CONNECT: Interface Serial1/0/0:11 is now connected to
5151234 N/A
```



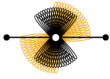
SRTP with Cisco Gateways

```
003892: Apr  4 20:53:33.228: %ISDN-6-DISCONNECT: Interface Serial1/0/0:11 disconnected from
5151234 , call lasted 21 seconds
003893: Apr  4 20:53:33.232: //53/F87DEDB9807B/CCAPI/cc_api_call_disconnected:
Cause Value=16, Interface=0x48CCD19C, Call Id=53
003894: Apr  4 20:53:33.232: //53/F87DEDB9807B/CCAPI/cc_api_call_disconnected:
Call Entry(Responded=TRUE, Cause Value=16, Retry Count=0)
003895: Apr  4 20:53:33.232: //52/F87DEDB9807B/CCAPI/ccConferenceDestroy:
Conference Id=0x10, Tag=0x0
003896: Apr  4 20:53:33.236: //52/xxxxxxxxxxxx/CCAPI/cc_api_bridge_drop_done:
Conference Id=0x10, Source Interface=0x47FB16CC, Source Call Id=52,
Destination Call Id=53, Disposition=0x0, Tag=0x0
003897: Apr  4 20:53:33.236: //53/xxxxxxxxxxxx/CCAPI/cc_api_bridge_drop_done:
Conference Id=0x10, Source Interface=0x48CCD19C, Source Call Id=53,
Destination Call Id=52, Disposition=0x0, Tag=0x0
003898: Apr  4 20:53:33.236: //52/F87DEDB9807B/CCAPI/cc_generic_bridge_done:
Conference Id=0x10, Source Interface=0x48CCD19C, Source Call Id=53,
Destination Call Id=52, Disposition=0x0, Tag=0x0
003899: Apr  4 20:53:33.236: //52/F87DEDB9807B/CCAPI/ccCallDisconnect:
Cause Value=16, Tag=0x0, Call Entry(Previous Disconnect Cause=0, Disconnect Cause=0)
003900: Apr  4 20:53:33.236: //52/F87DEDB9807B/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Responded=TRUE, Cause Value=16)
003901: Apr  4 20:53:33.236: //-1/xxxxxxxxxxxx/SIP/Event/sipSPIEventInfo: Queued event from SIP
SPI : SIPSPI_EV_CC_CALL_DISCONNECT
003902: Apr  4 20:53:33.236: //53/F87DEDB9807B/CCAPI/ccCallDisconnect:
Cause Value=16, Tag=0x0, Call Entry(Previous Disconnect Cause=0, Disconnect Cause=16)
003903: Apr  4 20:53:33.236: //53/F87DEDB9807B/CCAPI/ccCallDisconnect:
Cause Value=16, Call Entry(Responded=TRUE, Cause Value=16)
003904: Apr  4 20:53:33.236: //53/F87DEDB9807B/CCAPI/cc_api_get_transfer_info:
Transfer Number Is Null
003905: Apr  4 20:53:33.240: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 3 for event 7
003906: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Info/sipSPIValidateGtd: Signal Forward
disabled
003907: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Info/preprocessDisconnect: No GTD in Rawmsg
003908: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Info/sipSPIStopHoldTimer: Stopping hold timer
003909: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Info/sipSPIStopHoldTimer: Stopping hold timer
003910: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Info/sipSPISendBye: Associated
container=0x49066614 to Bye
003911: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipSPISendBye: Sending BYE to the
transport layer
003912: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipSPIGetSwitchTransportFlag: Return
the Dial peer configuration, Switch Transport is FALSE
003913: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipSPITransportSendMessage:
msg=0x4931E34C, addr=10.70.0.122, port=5061, sentBy_port=0, is_req=1, transport=4, switch=0,
callBack=0x41645028
003914: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipSPITransportSendMessage:
Proceedable for sending msg immediately
003915: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipTransportLogicSendMsg: switch
transport is 0
003916: Apr  4 20:53:33.240: //52/F87DEDB9807B/SIP/Transport/sipTransportLogicSendMsg: Set to
send the msg=0x4931E34C
003917: Apr  4 20:53:33.240: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostSendMessage: Posting
send for msg=0x4931E34C, addr=10.70.0.122, port=5061, connId=1 for TLS
003918: Apr  4 20:53:33.244: //52/F87DEDB9807B/SIP/Info/sentByeDisconnecting: Sent Bye Request,
starting DisconnectTimer
003919: Apr  4 20:53:33.244: //52/F87DEDB9807B/SIP/State/sipSPIChangeState: 0x48E23450 : State
change from (STATE_ACTIVE, SUBSTATE_NONE) to (STATE_DISCONNECTING, SUBSTATE_NONE)
003920: Apr  4 20:53:33.244: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Sent:
BYE sips:10.70.0.122:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.70.0.50:5061;branch=z9hG4bK1163D

From: <sips:5151234@qexp.com:5061>;tag=53661F8-FE2

To: "batmanadmin" <sips:5151111:5061>;tag=563
```



SRTP with Cisco Gateways

Date: Fri, 04 Apr 2008 20:53:12 GMT

Call-ID: f7c7c0ff9849c6e0b01674efa7415901@10.70.0.122

User-Agent: Cisco-SIPGateway/IOS-12.x

Max-Forwards: 70

Timestamp: 1207342413

CSeq: 101 BYE

Content-Length: 0

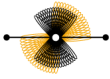
```
003921: Apr  4 20:53:33.256: //-1/xxxxxxxxxxxx/SIP/Error/sip_tls_tcp_read_socket:
Connid 2 closed by remote peer
003922: Apr  4 20:53:33.256: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_sockerror_to_spi: Sending TLS
TCP Remote Closure to SPI, connid: 2
003923: Apr  4 20:53:33.260: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 55
003924: Apr  4 20:53:33.260: //-
1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWSocketException: context=0x00000000
003925: Apr  4 20:53:33.260: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessSocketExceptions: gConnTab=0x482D86F4,
addr=10.70.0.122, port=3143, connid=2, transport=TLS Over TCP
003926: Apr  4 20:53:33.260: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportPostCloseConnection:
Posting TLS conn close for addr=10.70.0.122, port=3143, connid=2
003927: Apr  4 20:53:33.260: //-1/xxxxxxxxxxxx/SIP/Transport/sipDeleteConnInstance: Deleted
conn=0x47C4AD58, connid=2, addr=10.70.0.122, port=3143, transport=TLS Over TCP
003928: Apr  4 20:53:33.260: //-1/xxxxxxxxxxxx/SIP/Info/sips_tls_tcp_free_sips_context:
Closing OPSSL Context

003929: Apr  4 20:53:33.264: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_purge_entry: Socket fd: 2
closed for connid 2 with address: 10.70.0.122, remote port: 3143
003930: Apr  4 20:53:33.272: //53/F87DEDB9807B/CCAPI/cc_api_call_disconnect_done:
Disposition=0, Interface=0x48CCD19C, Tag=0x0, Call Id=53,
Call Entry(Disconnect Cause=16, Voice Class Cause Code=0, Retry Count=0)
003931: Apr  4 20:53:33.272: //53/F87DEDB9807B/CCAPI/cc_api_call_disconnect_done:
Call Disconnect Event Sent
003932: Apr  4 20:53:33.272: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

003933: Apr  4 20:53:33.272: :cc_free_feature_vsa freeing 48C7AB20
003934: Apr  4 20:53:33.272: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:

003935: Apr  4 20:53:33.272: vsacount in free is 1
003936: Apr  4 20:53:33.760: //-1/xxxxxxxxxxxx/SIP/Info/sip_tls_tcp_read_socket:
ReadBlock nbytes 381 offset 0
003937: Apr  4 20:53:33.760: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_process_sipspi_queue_event:
ccsip_spi_get_msg_type returned: 2 for event 1
003938: Apr  4 20:53:33.760: //-1/xxxxxxxxxxxx/SIP/Transport/sipTransportProcessNWNewConnMsg:
context=0x482D86F4
003939: Apr  4 20:53:33.760: //-
1/xxxxxxxxxxxx/SIP/Transport/sipConnectionManagerProcessNewConnMsg: gConnTab=0x482D86F4,
addr=10.70.0.122, port=5061, connid=1, transport=TLS Over TCP
003940: Apr  4 20:53:33.760: //-1/xxxxxxxxxxxx/SIP/Info/ccsip_new_msg_preprocessor: Checking
Invite Dialog
003941: Apr  4 20:53:33.760: //52/F87DEDB9807B/SIP/Info/sipSPIFindCcbUASRespTable: ****CCB found
in UAS Response table. ccb=0x48E23450
003942: Apr  4 20:53:33.760: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
SIP/2.0 200 OK

To: "batmanadmin" <sips:5151111:5061>;tag=563
```



SRTP with Cisco Gateways

From: <sips:5151234@gexp.com:5061>;tag=53661F8-FE2

Via: SIP/2.0/TLS 10.70.0.50:5061;branch=z9hG4bK1163D

CSeq: 101 BYE

Call-ID: f7c7c0ff9849c6e0b01674efa7415901@10.70.0.122

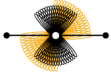
Contact: "batmanadmin" <sips:10.70.0.122:5061;transport=tls>

User-Agent: ININ-TsServer/2.4.0.0

x-inin-crn: 1002001614

Content-Length: 0

```
003943: Apr  4 20:53:33.760: //52/F87DEDB9807B/SIP/Info/sipSPIcpifUpdate: CallState: 3  Playout:
16430 DiscTime:8747262 ConnTime 8745034
003944: Apr  4 20:53:33.764: //52/F87DEDB9807B/CCAPI/cc_api_call_disconnect_done:
Disposition=0, Interface=0x47FB16CC, Tag=0x0, Call Id=52,
Call Entry(Disconnect Cause=16, Voice Class Cause Code=0, Retry Count=0)
003945: Apr  4 20:53:33.764: //52/F87DEDB9807B/CCAPI/cc_api_call_disconnect_done:
Call Disconnect Event Sent
003946: Apr  4 20:53:33.764: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:
003947: Apr  4 20:53:33.764: :cc_free_feature_vsa freeing 48C7ABF8
003948: Apr  4 20:53:33.764: //-1/xxxxxxxxxxxx/CCAPI/cc_free_feature_vsa:
003949: Apr  4 20:53:33.764: vsacount in free is 0
003950: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/State/sipSPIChangeState: 0x48E23450 : State
change from (STATE_DISCONNECTING, SUBSTATE_NONE) to (STATE_DEAD, SUBSTATE_NONE)
003951: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Call/sipSPICallInfo:
The Call Setup Information is:
Call Control Block (CCB) : 0x48E23450
State of The Call       : STATE_DEAD
TCP Sockets Used       : YES
Calling Number         :
Called Number          : 5151234
Source IP Address (Sig ) : 10.70.0.50
Destn SIP Req Addr:Port : 10.70.0.122:5061
Destn SIP Resp Addr:Port : 10.70.0.122:3143
Destination Name       : 10.70.0.122
003952: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Call/sipSPIMediaCallInfo:
Number of Media Streams: 1
Media Stream           : 1
Negotiated Codec       : g711ulaw
Negotiated Codec Bytes : 160
Nego. Codec payload    : 0 (tx), 0 (rx)
Negotiated Dtmf-relay  : 6
Dtmf-relay Payload     : 101 (tx), 101 (rx)
Source IP Address (Media): 10.70.0.50
Source IP Port (Media): 16540
Destn IP Address (Media): 10.60.0.104
Destn IP Port (Media): 2246
Orig Destn IP Address:Port (Media): 0.0.0.0:0
003953: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Call/sipSPICallInfo:
Disconnect Cause (CC)   : 16
Disconnect Cause (SIP)  : 200
003954: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIUdeleteccCallIdFromTable: Removing
call id 34
```

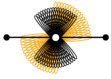


SRTP with Cisco Gateways

```
003955: Apr  4 20:53:33.764: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIDeleteContextFromTable: Context for
key=[27] removed.
003956: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIUdeleteCcbFromUASReqTable:
***Deleting from UAS Request table.
003957: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIUdeleteCcbFromTable: Deleting from
table. ccb=0x48E23450 key=f7c7c0ff9849c6e0b01674efa7415901@10.70.0.1225151234
003958: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIUdeleteCcbFromUASRespTable:
***Deleting from UAS Response table.
003959: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIUdeleteCcbFromTable: Deleting from
table. ccb=0x48E23450 key=f7c7c0ff9849c6e0b01674efa7415901@10.70.0.12253661F8-FE2
003960: Apr  4 20:53:33.764: //52/F87DEDB9807B/SIP/Info/sipSPIFlushEventBufferQueue: There are 0
events on the internal queue that are going to be free'd
003961: Apr  4 20:53:33.768: //52/F87DEDB9807B/SIP/Info/sipSPIUfreeOneCCB: Freeing ccb 48E23450
003962: Apr  4 20:53:33.768: //-1/xxxxxxxxxxxx/SIP/Info/sipSPIGetContextFromTable: NO context for
key[27]
Delta#
```

A problem with DSP Support

```
000201: Apr  3 20:52:12.151: //17/AADDC0E28029/SIP/Error/sipSPICheckDSPForSRTP: srtp negotiated &
dsp not supported but no fallback
000202: Apr  3 20:52:12.151: //17/AADDC0E28029/SIP/Error/ccsip_bridge: remote SRTP Negotiated but
SRTP not supported on DSP
```

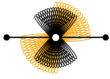


SRTP with Cisco Gateways

A working show run

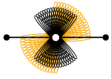
```
Delta#show run
Building configuration...

Current configuration : 6094 bytes
!
! Last configuration change at 14:11:40 east Fri Apr 4 2008
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service sequence-numbers
!
hostname Delta
!
boot-start-marker
boot system flash c2800nm-adventerprisek9_ivs-mz.124-15.T3.bin
boot-end-marker
!
logging buffered 5000000
enable secret 5 $1$HJ8e$nlwTVHR2.6rPvtGEEHBUG0
enable password testing
!
no aaa new-model
clock timezone east -4
no network-clock-participate slot 1
voice-card 0
  no dspfarm
!
voice-card 1
  codec complexity secure
  no dspfarm
!
!
!
ip cef
!
!
ip name-server 4.2.2.1
ip auth-proxy max-nodata-conns 3
ip admission max-nodata-conns 3
!
multilink bundle-name authenticated
!
isdn switch-type primary-ni
!
!
!
voice service pots
!
voice service voip
  srtplib
  allow-connections h323 to h323
  allow-connections h323 to sip
  allow-connections sip to h323
  allow-connections sip to sip
  h323
  sip
  bind control source-interface FastEthernet0/1
  bind media source-interface FastEthernet0/1
  session transport tcp tls
  url sips
```

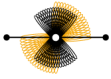
SRTP with Cisco Gateways

```
!!
!
crypto pki trustpoint INDY
  enrollment terminal pem
  fqdn www.inin.com
  subject-name C=US, ST=Indiana, L=Indianapolis, O=InteractiveIntelligence, OU=Te
  sting, CN=www.inin.com
  revocation-check none
  rsakeypair ININ-Key
!
!
crypto pki certificate chain INDY
certificate 2143416251
  3082024E 308201B7 A0030201 02020521 43416251 300D0609 2A864886 F70D0101
  05050030 47311030 0E060355 040A1307 53657276 65727331 15301306 0355040B
  130C5365 72766572 2047726F 7570311C 301A0603 55040314 13424154 4D414E5F
  53657276 65722047 726F7570 301E170D 30383033 32383139 34383536 5A170D32
  38303332 38313934 3835365A 30818E31 20301E06 0355040A 1317496E 74657261
  63746976 65496E74 656C6C69 67656E63 65311D30 1B060355 040B1314 54657374
  696E6720 28323031 31323237 32303229 31153013 06035504 03130C77 77772E69
  6E696E2E 636F6D31 15301306 03550407 130C496E 6469616E 61706F6C 69733110
  300E0603 55040813 07496E64 69616E61 310B3009 06035504 06130255 5330819F
  300D0609 2A864886 F70D0101 01050003 818D0030 81890281 81009E00 E0C1FF6E
  48BCBB54 84166629 46273F15 16564477 DBFC8D57 9DEC0A1B 9D0AD7ED 48936DC6
  9BEE9BAC B72077F6 DF53B056 4B5772A5 AB1F5749 229D349D B7D2508F 9A8A6226
  38A26192 143F6524 015193B2 F908A6C4 11C93DAB 65927FB6 06BE5482 4E26BF85
  6E0E8F07 1C95B6D0 EAF077C4 9CC40473 3B5D1506 56E9B38E 42B90203 01000130
  0D06092A 864886F7 0D010105 05000381 810021EA 136CC0A2 B252651D 8C0F6D0B
  DB7408E7 1D6EB023 119C2E9E 95952AB0 78F3346D 7535E5EB 49BBDB77 835DD83E
  8680C00C 2BDE88A9 502328FB B7C09D55 DC4AD5B4 4862AD22 25510929 FD9F72B3
  E1B98481 6F61F6D8 6098EACE 87FE4AD7 30D2C35E BE55DE1E 0EA6BD8E 7C7F4497
  4C6E9C60 754B5347 EF78F631 F67C247A E0CA
    quit
certificate ca 2011227202
  30820218 30820181 A0030201 02020520 11227202 300D0609 2A864886 F70D0101
  05050030 47311030 0E060355 040A1307 53657276 65727331 15301306 0355040B
  130C5365 72766572 2047726F 7570311C 301A0603 55040314 13424154 4D414E5F
  53657276 65722047 726F7570 301E170D 30373132 30343137 34333134 5A170D32
  37313230 35313734 3331345A 30473110 300E0603 55040A13 07536572 76657273
  31153013 06035504 0B130C53 65727665 72204772 6F757031 1C301A06 03550403
  14134241 544D414E 5F536572 76657220 47726F75 7030819F 300D0609 2A864886
  F70D0101 01050003 818D0030 81890281 8100EE06 12B95940 1C0EF281 B2634B7A
  E0F75672 B9F31334 78784D69 0E55E50D DBDB392D 9AEB5E18 C90B7909 EE872A8C
  3FDAFAA4 D433F6BC E760658A 1747B5D2 15487A7B 4851733B 439D3645 65FFE373
  2341F568 91934AB7 0F876E72 3F6AFF58 3E4C654E 4B2FA2FB 498B3861 C2095D1E
  BDBBFCBD 984F6E8E 395DB014 5F69B5B7 9ED90203 010001A3 10300E30 0C060355
  1D130405 30030101 FF300D06 092A8648 86F70D01 01050500 03818100 0C50DFE0
  18B14A8B 0E193A3A FFFA2C95 08DB5E2E 79E72790 39F7768B 74E5E2B4 2351A68A
  E8A30A45 7AA40FD7 BE44ED5C D54DA464 0719D7B1 04051CAE 996E2FAD 39262CEB
  FC46819E B6BA4DC7 0163D77A 90A2C87A 2A928447 C6413738 6B459ED8 E00943E9
  3E7C0344 1848DE12 047F5102 CD7192F4 74231A12 6A1FA739 29A8D2A3
    quit
!
!
!
archive
  log config
  hidekeys
!
!
!
controller T1 1/0/0
  framing esf
  linecode b8zs
  pri-group timeslots 1-12,24
!
!
!
```



SRTP with Cisco Gateways

```
!  
!  
interface FastEthernet0/0  
  no ip address  
  shutdown  
  duplex full  
  speed auto  
!  
interface FastEthernet0/1  
  ip address 10.70.0.50 255.255.0.0  
  duplex full  
  speed auto  
  h323-gateway voip interface  
  h323-gateway voip id delta ipaddr 10.70.0.111 1719  
  h323-gateway voip h323-id delta@qexp.com  
  h323-gateway voip tech-prefix 1#  
!  
interface Serial0/2/0  
  bandwidth 3906  
  no ip address  
  shutdown  
  clock rate 4000000  
!  
interface Serial1/0/0:23  
  no ip address  
  encapsulation hdlc  
  isdn switch-type primary-ni  
  isdn incoming-voice voice  
  no cdp enable  
!  
router rip  
  version 2  
  network 10.0.0.0  
  neighbor 10.10.0.1  
!  
ip default-gateway 10.10.0.1  
ip default-network 10.0.0.0  
ip forward-protocol nd  
ip route 10.0.0.0 255.0.0.0 10.10.0.1  
!  
!  
ip http server  
no ip http secure-server  
!  
!  
!  
!  
!  
control-plane  
!  
!  
!  
voice-port 1/0/0:23  
!  
!  
!  
!  
dial-peer voice 9 pots  
  incoming called-number .  
  direct-inward-dial  
!  
dial-peer voice 305 voip  
  preference 1  
  destination-pattern 560....  
  voice-class sip url sips
```



SRTP with Cisco Gateways

```
session protocol sipv2
session target ipv4:10.70.0.123
codec g711ulaw
no vad
!
dial-peer voice 301 voip
voice-class sip url sips
session protocol sipv2
session transport tcp tls
incoming called-number 5151234
dtmf-relay sip-notify rtp-nte sip-kpml
codec g711ulaw
no vad
!
dial-peer voice 306 voip
preference 2
destination-pattern 560....
voice-class sip url sips
session protocol sipv2
session target ipv4:10.70.0.122
codec g711ulaw
no vad
!
dial-peer voice 99 pots
service session
destination-pattern .T
incoming called-number .T
direct-inward-dial
port 1/0/0:23
!
!
gateway
timer receive-rtp 1200
!
sip-ua
crypto signaling default trustpoint INDY
!
!
!
gatekeeper
shutdown
!
!
line con 0
line aux 0
line vty 0 4
password password
login
!
scheduler allocate 20000 1000
ntp clock-period 17180101
ntp server 10.70.0.5
ntp server 204.152.184.138
!
end

Delta#
```