

Cisco IOS 1/2 SIP Session Initiation Protocol Denial of Service (DoS) Vulnerability



Cisco IOS 1/2 SIP Session Initiation Protocol Denial of Service (DoS) Vulnerability ID : cisco-sa-20131106-sip

[CVE-2013-5553](#)

Published : 2013-11-06 16:00

Last Modified : 2013-11-15 16:42

Version : 1.1 : Final

CVSS Score : 7.8

Workarounds : No Workarounds available

Cisco ID : [CSCuc42558](#)

High Severity Vulnerability: Cisco IOS 1/2 SIP Session Initiation Protocol Denial of Service (DoS) Vulnerability

Summary

Cisco IOS 1/2 SIP Session Initiation Protocol Denial of Service (DoS) Vulnerability. This vulnerability exists in the SIP Session Initiation Protocol (SIP) implementation in Cisco IOS 1/2. An attacker can exploit this vulnerability to cause a Denial of Service (DoS) by sending a specially crafted SIP message to the target device. The vulnerability is caused by a buffer overflow in the SIP implementation. The vulnerability is rated as High severity with a CVSS score of 7.8. No workarounds are available for this vulnerability.

CVSS Score: 7.8

Workarounds: No Workarounds available

For more information, please refer to the following link:
<https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20131106-sip>

References

High Severity Vulnerability: Cisco IOS 1/2 SIP Session Initiation Protocol Denial of Service (DoS) Vulnerability

For more information, please refer to the following link:
<https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20131106-sip>

- 15.1(4)GCãŠã,^ã³15.1(4)GC1
- 15.1(4)M4ã€15.1(4)M5ã€ãŠã,^ã³15.1(4)M6

Cisco

IOSã,½ãf•ãf^ã,|ã,šã,çã®æœ€èè:ã®ãfãfãfãf¼ã,¹ãšãã¯ã€ãfãfãfã,©ãf«ãf^ãšã¯SIPãf;ãffã

dial-peer

voiceè"ã®šã,³ãfžãf³ãf%ã,ç™œ;Eã—ã|ãf€ã,ããfããfããf'ã,çã,'ã½œæ^ã™ã,ã"ã€SIPãf—ã

IOSãfãfãfã,ã,¹ãšSIPãf;ãffã,»ãf¼ã,ãEã‡|çtã•ã,Eã¾ã™ã€ã¾ãÿã€ePhoneã

Unified Communications Manager

Expressã®ä,€éf"ã®æ©ÿèf½ã,,ã€è"ã®šã•ã,Eã,ã"ãSIPãf—ãfã,»ã,¹ã,'è‡ã•çš,,ã«é—ãš<

```
!
dial-peer voice <Voice dial-peer tag> voip
...
!
```

Cisco

IOSãfãfãfã,ã,¹ã®è"ã®šã,'èªã½ã|ã€ãfãfãfã,ã,¹ã«SIPãf;ãffã,»ãf¼ã,ã,'ã‡|çtã•ã€

dial-peerã,³ãfžãf³ãf%ã,'çœ"ã™ã,ããããšããããã€ç®çtè€...ã¯ show

processes | include SIPã,³ãfžãf³ãf%ã,'ã½ç"ã—ã|ã€Cisco

IOSã,½ãf•ãf^ã,|ã,šã,çãESIPãf;ãffã,»ãf¼ã,ã,'ã‡|çtã™ã,ãf—ãfã,»ã,¹ã,'ã®ÿè;Eã—ã|ã€

IOSãfãfãfã,ã,¹ã¯SIPãf;ãffã,»ãf¼ã,ã,'ã‡|çtã—ã¾ã™ã€,

```
Router# show processes | include SIP
149 Mwe 40F48254          4          1      400023108/24000  0 CCSIP_UDP_SOCKET
150 Mwe 40F48034          4          1      400023388/24000  0 CCSIP_TCP_SOCKET
```

æ³I¼Cisco

IOSã,½ãf•ãf^ã,|ã,šã,çã,'ã®ÿè;Eã—ã|ã€,ã,ãfãfãfã,ã,¹ãESIPãf;ãffã,»ãf¼ã,ã®ã‡|çtã,

show processes | include

SIPã,³ãfžãf³ãf%ã,'ã½ç"ã™ã,ã"ã€ãfãfãfã,ã,¹ãEç%ã¹ã®šã®è"ã®šã,³ãfžãf³ãf%ã®ã

```
ã,ã,¹ã,³è£½ã"ãšç¼ãfãã—ã|ã€,ã,< Cisco IOSã,½ãf•ãf^ã,|ã,šã,ç
ãfãfãfãf¼ã,¹ã,çœ"ã™ã,ã«ã¯ã€ãfãfãfã,ã,¹ã«ãfã,ã,ããfãã—ã| show
versionã,³ãfžãf³ãf%ã,'ã½çEã|ã€ã,ã,¹ãftãf
ãfãfšãf¼ã,'è"çªã—ã¾ã™ã€, "Internetwork Operating System Software"ã€"Cisco
IOS Software"ã,ã,ã€,ããã"ã"ã,Eã,%ã«éjžã¼ã™ã,ã,ã,¹ãftãf
ãfãfšãf¼ã«ã,^ãEã|ãfãfãfã,ã,¹ãš Cisco IOS
```


ã"ã®è,,t¼±æ€šã ¯ã€ç%¹ã^¥ã«ã·šã|™ã«ç°ã·¥ã·ã,CEãÿSIPãf;ãffã,»ãf¼ã,ã®ã,é

ã"ã®è,,t¼±æ€šã ¯ã€Cisco

IOSã,½ãf·ãf^ã,|ã,šã,çã,ã®ÿè;CEã—ã|ã,,ã,ãfãfãã,ã,¹ãCEã€ç%¹ã®šã®æœ%¹ãªSIP
over

IPV4ã¾ãÿã ¯IPV6é€šã;ãf—ãfãf^ã,³ãf«ãšã,æfã^ç""ã·ã,CEã,ã®èf½æ€šãCEã,ã,šã

æ³i¼šSIPãCTCPãf^ãfããf³ã,¹ãfãf¼ãf^ã,šãšã®ÿè;CEã·ã,CEã|ã,,ã,ãã'ã^ã¯ã€ãã"ã®

ã"ã®è,,t¼±æ€šã ¯ã€Cisco Bug ID [CSCuc42558](#)([ç™»éCE²ãf¼ã,¶ã°,ç""](#))ãšã,^ã³
[CSCug25383](#)(

[ç™»éCE²ãf¼ã,¶ã°,ç""](#)ã ¯ã—ã|æ-†æ,ãCE-ã·ã,CEã|ã,,ã¾ã™ã€,ã"ã®è,,t¼±æ€šã
Vulnerabilities and Exposures(CVE)IDã ¯ã—ã|CVE-2013-
5553ãCEã%¹ã,šã½"ã|ã,%¹ã,CEã|ã,,ã¾ã™ã€,

ãžéç-

è²ã½"ã™ã,ãCisco

IOSãfãfãã,ã,¹ãSVoIPã,µãf¼ãf^ã,¹ç""ã®SIPãCEã;...è|ããªã'ã^ã€SIPã,ç,,ãšãã«ã™ã,

ãfãffãf^ãf^ãf¼ã,¯ãt...ã®Ciscoãfãfãã,ã,¹ã«éç""ã®èf½ãªã»-ã®ç·ã'CEç-ãããã
and Mitigating Exploitation of the Cisco IOS Software Session Initiation Protocol Denial of
Service Vulnerabilityã€ã,ã,ç...šã—ã|ãããããã·ã,,ã€,
<https://sec.cloudapps.cisco.com/security/center/viewAMBAAlert.x?alertId=31516>

SIPãfªã,¹ãfãf³ã,°ãfãf¼ãf^ã®ç,,ãšãªãCE-

SIPã,æœ%¹ãªSIPã«ã™ã,ãã;...è|ããCEãªã,,ãfãfããã,ã,¹ã®ã'ã^ã€æœ€ã,,ç°ãããšãªã
IOSã,½ãf·ãf^ã,|ã,šã,çã®ã,é€f"ã®ãfªãfªãf¼ã,¹ãšã¯ã€ç®ç;çtè€...ã¯ã-ããã®ã,³ãfãf³ãfªã

```
sip-ua  
no transport udp  
no transport tcp  
no transport tcp tls
```

èã'š¼šMedia Gateway Control

Protocol(MGCP)ã¾ãÿã ¯H.323ã,³ãf¼ãf^ã,ã,ã|çtã—ã|ã,,ã,ãfãfããã,ã,¹ã«ã"ã®ããã

```

# show udp connections
# show tcp brief
# all show control-plane host open-ports
# UDP/TCP connections

```

```

# IOS 12.2S (Cisco)
# show ip
# sockets

```

```

*Nov 2 11:36:47.691: sip_udp_sock_process_read: SIP UDP Listener is DISABLED

```

```

# SIP
# IOS 12.2S
# CoPP
# SIP

```

```

!â€œ The 192.168.1.0/24 network and the 172.16.1.1 host are trusted.
!â€œ Everything else is not trusted. The following access list is used
!â€œ to determine what traffic needs to be dropped by a control plane
!â€œ policy (the CoPP feature): if the access list matches (permit)
!â€œ then traffic will be dropped and if the access list does not
!â€œ match (deny) then traffic will be processed by the router.

```

```

access-list 100 deny udp 192.168.1.0 0.0.0.255 any eq 5060
access-list 100 deny tcp 192.168.1.0 0.0.0.255 any eq 5060
access-list 100 deny tcp 192.168.1.0 0.0.0.255 any eq 5061
access-list 100 deny udp host 172.16.1.1 any eq 5060
access-list 100 deny tcp host 172.16.1.1 any eq 5060
access-list 100 deny tcp host 172.16.1.1 any eq 5061
access-list 100 permit udp any any eq 5060
access-list 100 permit tcp any any eq 5060
access-list 100 permit tcp any any eq 5061

```

```

!â€œ Permit (Police or Drop)/Deny (Allow) all other Layer3 and Layer4
!â€œ traffic in accordance with existing security policies and
!â€œ configurations for traffic that is authorized to be sent
!â€œ to infrastructure devices.
!â€œ Create a Class-Map for traffic to be policed by
!â€œ the CoPP feature.

```


IOS, 1/2 af af a, | a, sa, caf af af af 1/4 a, 1 a « a 3/4 a ce a TM a, a, a, a, 1 a, 3 a, » a, af af af af a, E a, caf % a f a, a, a, a, a, a,

<https://sec.cloudapps.cisco.com/security/center/selectIOSVersion.x> « a a, a, < Cisco

Security(SIO) af af 1/4 a, a af « a Sa ^ C s a a 3/4 a TM a e,

af; a, af af 1/4 af af af 1/4 a, 1	ä; @æfæ, ^ a a af af af 1/4 a, 1 a @ a ... æ % a a è f 1/2 æ € S
Affected 12.0-Based Releases	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	è © 2 a 1/2 a TM a, < 12.0 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
Affected 12.2-Based Releases	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	a 1/2 ± é Y; a, ' a — a a, < 12.2 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
Affected 12.3-Based Releases	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	è © 2 a 1/2 a TM a, < 12.3 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
Affected 12.4-Based Releases	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	è © 2 a 1/2 a TM a, < 12.4 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
a 1/2 ± é Y; a, ' a — a a, < 15.0 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	a 1/2 ± é Y; a, ' a — a a, < 15.0 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
a 1/2 ± é Y; a, ' a — a a, < 15.1 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
15.1EY	è, † a 1/4 ± æ € s a a a —
15.1GC	è, † a 1/4 ± æ € s a a, S i 1/4 a af af af 1/4 a, 1 15.1 M a S æ œ € a ^ a a « ä; @ æ f i 1/4 % 15.1(2)GC2 a, ^ a, S a % a a @ af af af 1/4 a, 1 a a 1/2 ± é Y; a, ' a — a a 3/4 a a
15.1M	15.1(4)M7 15.1(4)M4 a, ^ a, S a % a a @ af af af 1/4 a, 1 a a 1/2 ± é Y; a, ' a — a a 3/4 a a
15.1MR	è, † a 1/4 ± æ € s a a a —
15.1S	è, † a 1/4 ± æ € s a a a —
15.1SG	è, † a 1/4 ± æ € s a a a —
15.1SNG	è, † a 1/4 ± æ € s a a a —
15.1SNH	è, † a 1/4 ± æ € s a a a —
15.1T	è, † a 1/4 ± æ € s a a a —
a 1/2 ± é Y; a, ' a — a a, < 15.2 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1
	a 1/2 ± é Y; a, ' a — a a, < 15.2 af TM af 1/4 a, 1 a @ af af af 1/4 a, 1 a a a, a, S a 3/4 a a, " a e,
a 1/2 ± é Y; a, ' a — a a, < 15.3	First Fixed Release i 1/4 a; @æfæ a a, C a a Y æ œ € a ^ a a @ af af af 1/4 a, 1

ãf™ãf¼ã,¹ã@ãfªãfªãf¼ã,¹

å½±éÿã, 'å—ã'ã, < 15.3 ãf™ãf¼ã,¹ã@ãfªãfªãf¼ã,¹ã-ã,ã,Šã¼ã>ã,"ã€,

ä, æfå^©ç"" ä°<ã¾ã ã...-ã¼ç™°èj"

Cisco Product Security Incident Response

Teami¼^PSIRTi¼%ã-ã€æœ-ã, çãf%ãfã, ðã, ¶ãfãã«è~è¼%ã•ã, CEã |ã,,ã, <è,, tã¼±æ€Sã

ã"ã@è,, tã¼±æ€Sã-ã€ããŠã@çæS~ã@ã, µãf¼ãf"ã,¹ãfãã, -ã, "ã,¹ãfã@ã‡!çtã,ã«ã,ã,¹ã,³,

URL

<https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20131106-sip>

æ"¹è", å±Yæ'

ãfªãf"ã,ãfšãf³ 1.1	2013å¹¹æœ^15æ—Y	ã€CEã>žéç-ã€ã@ã€CESIPãfã,¹ãf<ãf³ã,°ãfãf¼ãf^ã@ç,,jã
ãfªãf"ã,ãfšãf³ 1.0	2013å¹¹æœ^6æ—Y	ã^ã>žã...-é-<ãfªãfªãf¼ã,¹

å^©ç""è!ç',,,

æœ-ã, çãf%ãfã, ðã, ¶ãfãã-ç,, jãçè"¼ã@ã,,ã@ã"ã-ã|ã"ææã¾ã-ã|ãŠã,Šã€
æœ-ã, çãf%ãfã, ðã, ¶ãfãã@æf...å±ãŠã, ^ã³ãfªãf³ã, -ã@ã½çç""ã«é-çã™ã, <è²-ã»ã@ã, €
ã¾ããÿã€ã,ã,¹ã,³ã-æœ-ãf%ã,ãfYãfjãf³ãf^ã@ãt...ã@¹ã,'ã^ã'Sãªã-ã«ã%œ'ã-ã
æœ-ã, çãf%ãfã, ðã, ¶ãfãã@è"~èç°ãt...ã@¹ã«é-çã-ã|æf...å±é...ãçjã@ URL
ã,çœççYã-ã€ããç<-ã@è»çè¼%ã,,,æ,,è"³ã,'æ-½ã-ãÿã'ã^ã€ã½"ç¾ãCEç@çç
ã"ã@ãf%ã,ãfYãfjãf³ãf^ã@æf...å±ã-ã€ã,ã,¹ã,³è£½ã"ã@ã, "ãfªãf%ãf!ãf¼ã,¶ã,'ã³¼è±jã

翻訳について

シスコは世界中のユーザにそれぞれの言語でサポート コンテンツを提供するために、機械と人による翻訳を組み合わせて、本ドキュメントを翻訳しています。ただし、最高度の機械翻訳であっても、専門家による翻訳のような正確性は確保されません。シスコは、これら翻訳の正確性について法的責任を負いません。原典である英語版（リンクからアクセス可能）もあわせて参照することを推奨します。