

Cisco

IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN)



Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN) ID : cisco-sa-20080924-12tp

[CVE-2008-3813](#)

Published : 2008-09-24 16:00

Version : 1.1 : Final

CVSS : 7.8

Workarounds : No Workarounds available

Cisco ID : [CSCsh48879](#)

Summary: A vulnerability in Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN) allows an attacker to cause a denial of service (DoS) attack.

Details

Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN)

The vulnerability exists in the L2TP Group Bidding Protocol (SGBP) implementation in Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN) software versions 12.4(1)T through 12.4(1)T.

The vulnerability is caused by a buffer overflow in the SGBP implementation. An attacker can exploit this vulnerability by sending a specially crafted packet to the affected device.

Networks (VPDN) in Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN)

IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN) software versions 12.4(1)T through 12.4(1)T.

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For more information, please refer to the following URL: <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAlert?alertID=20080924-12tp>

2008-09-24 16:00:00. The vulnerability exists in the L2TP Group Bidding Protocol (SGBP) implementation in Cisco IOS, Layer 2 Tunneling Protocol (L2TP) Group Bidding Protocol (SGBP) Networks (VPDN) software versions 12.4(1)T through 12.4(1)T.

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- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-iosips>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-ssl>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-sip>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-cucm>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-vpn>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-mfi>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-ipc>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-ubr>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-multicast>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-sccp>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20080924-iosfw>

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 mgmt daemonã,ççèã—ã¾ã™ã€,

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 versionã,³ãfããfãf%ã,ççè;Çã—ã|ã,ã,¹ãftãfãfãfšãf¼ã,è;ççèã—ã¾ã™ã€Cisco
 IOSã,½ãfãfã,|ã,šã,çã—ã€ÇInternet network Operating System
 Softwareãã¾ãÿã™ãããã€ÇIOSããã”è;ççèãã,ãÇã¾ã™ã€,
 åºãšã®æ¬ã®è;Çãšã—ã€ã,ããfãf¼ã,ãããÇã,ããfã,³ãšã²ã¾ãÇã|è;ççèã
 Ciscoãfããã,ã,¹ããã™ã show version
 ã,³ãfããfãf%ãÇããã,,ããã€ççèãã,ãããšãÇè;”ãã,ãÇã¾ã™ã€,

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IOSã,½ãfãfã,|ã,šã,çãfããfãf¼ã,¹2.4(11)T2ã,ã®ÿè;Çã—ã|ã,,ã,ã,ã,¹ã,è£½á“ã,ççèã—ã

<#root>

Router#

show version

Cisco IOS Software, 7200 Software (C7200-ADVSECURITYK9-M), Version 12.4(11)T2, RELEASE SOFTWARE (fc4)
Technical Support: <http://www.cisco.com/techsupport>
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Tue 01-May-07 04:19 by prod_rel_team

Cisco

IOS <http://www.cisco.com/w>

Paper: Cisco IOS Reference

Guide [Cisco IOS Reference](#)

L2TP mgmt

daemon **processes**

include L2TP

L2TP mgmt

L2TP mgmt

daemon

Router#show processes | include L2TP

158 Mwe 62590FE4 4 3 133322900/24000 0 L2TP mgmt daemon

Router#

L2TP **running-config**

L2TP mgmt

L2TP mgmt

- **Virtual Private Dial-Up Network (VPDN)**
- **L2TPv3**
- **Stack Group Bidding**

Protocol(SGBP)ã€ˆ€èˆˆã@šã•ã,CEã |ã,ã,ã€,

ã,ãfžãfãf%sgbp group group-name

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- L2TPã,ã,ãfŠãfãfã,ãf†ãfãf—ãf-ãf¼ãf^ã€ˆ€ã@šç¾ã•ã,CEã |ã,ã,ã€,

ã,ãfžãfãf%l2tp-class l2tp-class name

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- ãf-ã,ããfã2ãf^ãfãfãf«ãf—ãfãf^ã,ããf«ãfãf¼ã,ããfšãf¾ç”ã€ˆ€èˆˆã@šã•ã,CEã€ˆˆãf†ãfã,ã,ã€ˆˆãã-ã¼¼ãžçšã,ããfã,ã€ˆˆã-ã¼¼ãžçšã,ããfã,ã€ˆˆã,ãfžãfãf%ã€ˆˆã€ˆ€ã€ãã,ã€ˆ€€ç”ã€ˆˆã€ˆˆã

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- Cisco

IOSãfãf¼ã,ããfšãf¾ã,ã@ÿè;CEã—ã |ã,ã,ããf†ãfã,ã,ã,1ãšã€ã-ãjã@ã,½ãfãf^ã,ã,š

- Cisco IOS XRã€ˆ€è²ã½”ã—ã¾ãã,ãã€,

- Cisco IOS XEã€ˆ€ã½±éÿã,ã—ãã¾ãã,ãã€,

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[RFC2661](#)ã€ˆ€L2TPã€ˆ€ãšã,ã¾ã¾ã€¾ã€ˆ€[RFC3931](#)ã€ˆ€šã-ã€¾ã€ã-ã•ã,CEã |ã,ã,ãL2TPv3ã€ˆ€ã€ã-çã”

è²ã½”ã™ã,ãCisco IOSãfãf¼ã,ããfšãf¾ã12.2ãšã,ã¾ã12.4ã,ã@ÿè;CEã—ã€ˆ€L2TP mgmt

daemonãf—ãã,ã,ããã@ÿè;CEã•ã,CEã |ã,ã,ããf†ãfã,ã,ã,ã€ˆ€ãç%ã^ãã«ãšã!™ã«ç”

L2TPãf—ããfãfã,ããfã,ã^ç”ã—ã |ã€ˆ€Cisco IOSãt...ãšL2TP

mgmtãf†ãf¼ããfãf¾ã,ã€ã•ã™ã,ã€ÿè½ã€ˆ€ã,ãããããããããã,ãš¾ã™ã€ã,ãã,ã€ã,%ãã

ã”ã@ã,†ã¼±ã€šãã€ˆ€Cisco Bug ID

[CSCsh48879](#)(ç™€ããfãf¼ã,ãã,ç””)ã€ˆ€ã—ã |ã-ã€¾ã€ã-ã•ã,CEã€ˆ€Common

Vulnerabilities and Exposures(CVE)IDã€ˆ€ã—ã |ã€ˆ€CVE-2008-

3813ã€ˆ€ã%ãšã½”ã |ã,%ãã,CEã |ã,ã¾ã™ã€,

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L2TPã@ã@ÿè£...ãšãã€ˆ€ãžé ¼ãšããã,ã,çãf%ããf-ã,ãããã,ããfããfãã,ããfããã,ããfããã

1701ã,èˆˆ±ãã™ã,ããç...è |ã€ˆ€ãã,ãš¾ã¾ã™ã€ã,é€ˆ€ãžéã...ããfã,çãf%ããf-ã,ãããã,ããf—ãf¼ããfã

ã”ã¼šL2TPv3 over IPã@ããçã,ã@ÿè£...ã™ã,ããããã€ˆ€ãã™ãã1ã |ã@ãUDP

1701 *Permit L2TP UDP 1701 packets from all trusted sources destined to infrastructure addresses.*

- NOTE: This does not prevent spoofed attacks. To be a full mitigation, no trusted source addresses should be listed. Omit this line if using a L2TPv3 over IP implementation only.*
 Access Control Lists (ACLs)
 iACL
 IP
 IP

```
!--- Permit L2TP UDP 1701 packets from all trusted
!--- sources destined to infrastructure addresses.
!--- NOTE: This does not prevent spoofed attacks.
!--- To be a full mitigation, no trusted source
!--- addresses should be listed.
!--- Omit this line if using a L2TPv3 over IP implementation only.
```

```
access-list 150 permit udp TRUSTED_SOURCE_ADDRESSES MASK
INFRAStructure_ADDRESSES MASK eq 1701
```

```
!--- Deny L2TP UDP 1701 packets from all
!--- sources destined to infrastructure addresses.
```

```
access-list 150 deny udp any INFRASTRUCTURE_ADDRESSES MASK eq 1701
```

```
!--- If using a L2TPv3 over IP implementation ensure to allow L2TPv3
```

```
access-list 150 permit 115 <source_ip_address and mask>
<destination_ip_address and mask>
```

```
!--- Permit/deny all other Layer 3 and Layer 4 traffic in accordance
!--- with existing security policies and configurations
!--- Permit all other traffic to transit the device.
```

```
access-list 150 permit ip any any
```

```
!--- Apply access-list to all interfaces (only one example shown)
```

```
interface serial 2/0
ip access-group 150 in
```

Protecting Your Core: Infrastructure Protection Access Control

Lists

- `access-list 111 deny udp TRUSTED_SOURCE_ADDRESSES MASK INFRASTRUCTURE_ADDRESSES MASK eq 1701`
`access-list 111 permit udp any INFRASTRUCTURE_ADDRESSES MASK eq 1701`
`access-list 111 deny 115 <source_ip_address and mask> <destination_ip_address and mask>`

```
!--- Deny all trusted source L2TP UDP traffic sent to all IP addresses
!--- configured on all interfaces of the affected device so that it
!--- will not be policed by the CoPP feature.
```

```
!--- NOTE: This does not prevent spoofed attacks.
!--- To be a full mitigation, no trusted source
!--- addresses should be listed.
!--- Omit this line if using an L2TPv3 over IP implementation only.
```

```
access-list 111 deny udp TRUSTED_SOURCE_ADDRESSES MASK
INFRASTRUCTURE_ADDRESSES MASK eq 1701
```

```
!--- Permit all L2TP UDP traffic sent to all IP addresses
!--- configured on all interfaces of the affected device so that it
!--- will be policed and dropped by the CoPP feature
```

```
access-list 111 permit udp any INFRASTRUCTURE_ADDRESSES MASK eq 1701
```

```
!--- If using an L2TPv3 over IP implementation ensure not to drop L2TPv3
```

```
access-list 111 deny 115 <source_ip_address and mask>
<destination_ip_address and mask>
```

```
!--- Permit (Police or Drop)/Deny (Allow) all other Layer3 and Layer4
!--- traffic in accordance with existing security policies and
!--- configurations for traffic that is authorized to be sent
```

!--- to infrastructure devices

!--- Create a Class-Map for traffic to be policed by
!--- the CoPP feature

```
class-map match-all drop-l2tp-class
match access-group 111
```

!--- Create a Policy-Map that will be applied to the
!--- Control-Plane of the device.

```
policy-map drop-l2tp-traffic
class drop-l2tp-class
drop
```

!--- Apply the Policy-Map to the
!--- Control-Plane of the device

```
control-plane
service-policy input drop-l2tp-traffic
```

CoPP "permit"
(ACE)
policy-
map "drop"
deny"
po
map "drop" policy-map
Cisco IOS
:

```
policy-map drop-l2tp-traffic
class drop-l2tp-class
police 32000 1500 1500 conform-action drop exceed-action drop
```

CoPP

Cisco
[amb-20080924-l2tp](http://www.cisco.com/amb-20080924-l2tp)

12.2-Based Releases	
12.2	è,,†â¼±æ€§ãªã—
12.2B	è,,†â¼±æ€§ãªã—
12.2BC	è,,†â¼±æ€§ãªã—
12.2BW	è,,†â¼±æ€§ãªã—
12.2BX	è,,†â¼±æ€§ãªã—
12.2BY	è,,†â¼±æ€§ãªã—
12.2BZ	è,,†â¼±æ€§ãªã—
12.2CX	è,,†â¼±æ€§ãªã—
12.2CY	è,,†â¼±æ€§ãªã—
12.2CZ	è,,†â¼±æ€§ãªã—
12.2DA	è,,†â¼±æ€§ãªã—
12.2DD	è,,†â¼±æ€§ãªã—
12.2DX	è,,†â¼±æ€§ãªã—
12.2EW	è,,†â¼±æ€§ãªã—

12.2EWA	è,,†å¼±æ€§ãªã—
12.2EX	è,,†å¼±æ€§ãªã—
12.2EY	è,,†å¼±æ€§ãªã—
12.2EZ	è,,†å¼±æ€§ãªã—
12.2FX	è,,†å¼±æ€§ãªã—
12.2FY	è,,†å¼±æ€§ãªã—
12.2FZ	è,,†å¼±æ€§ãªã—
12.2IRB	è,,†å¼±æ€§ãªã—
12.2IXA	è,,†å¼±æ€§ãªã—
12.2IXB	è,,†å¼±æ€§ãªã—
12.2IXC	è,,†å¼±æ€§ãªã—
12.2IXD	è,,†å¼±æ€§ãªã—
12.2IXE	è,,†å¼±æ€§ãªã—
12.2IXF	è,,†å¼±æ€§ãªã—
12.2IXG	è,,†å¼±æ€§ãªã—

12.2JA	è,,†â¼±æ€§ãªã—
12.2JK	è,,†â¼±æ€§ãªã—
12.2MB	è,,†â¼±æ€§ãªã—
12.2MC	è,,†â¼±æ€§ãªã—
12.2S	è,,†â¼±æ€§ãªã—
12.2SB	è,,†â¼±æ€§ãªã—
12.2SBC	è,,†â¼±æ€§ãªã—
12.2SCA	è,,†â¼±æ€§ãªã—
12.2SE	æ³ˆ¼š12.2(37)SEã, ^ã, Šã%ªª@ãªªªª¼ã, ¹ãªªªªª, è,,†â¼±æ€§ãªãªªªªª, Šã¼ªªªªª, »ª,
12.2SEA	è,,†â¼±æ€§ãªã—
12.2SEB	è,,†â¼±æ€§ãªã—
12.2SEC	è,,†â¼±æ€§ãªã—
12.2SED	è,,†â¼±æ€§ãªã—
12.2SEE	è,,†â¼±æ€§ãªã—
12.2SEF	è,,†â¼±æ€§ãªã—

12.2SEG	è,,†â¼±æ€§ãªã—
12.2SG	æ³ˆ¼š12.2(37)SGã,^ã,Šã%ªãª@ãªãªãª¼ã,¹ãª«ãªè,,†â¼±æ€§ãªãª,ã,Šãª¼ãª>ãª,
12.2SGA	è,,†â¼±æ€§ãªãª—
12.2SL	è,,†â¼±æ€§ãªãª—
12.2SM	è,,†â¼±æ€§ãªãª—
12.2SO	è,,†â¼±æ€§ãªãª—
12.2SRA	è,,†â¼±æ€§ãªãª—
12.2SRB	12.2(33)SRB1
12.2SRC	è,,†â¼±æ€§ãªãª—
12.2SU	è,,†â¼±æ€§ãªãª—
12.2SV	è,,†â¼±æ€§ãªãª—
12.2SVA	è,,†â¼±æ€§ãªãª—
12.2SVC	è,,†â¼±æ€§ãªãª—
12.2SVD	è,,†â¼±æ€§ãªãª—
12.2SW	è,,†â¼±æ€§ãªãª—

12.2SX	è,,†â¼±æ€§ãªã—
12.2SXA	è,,†â¼±æ€§ãªã—
12.2SXB	è,,†â¼±æ€§ãªã—
12.2SXD	è,,†â¼±æ€§ãªã—
12.2SXE	è,,†â¼±æ€§ãªã—
12.2SXF	è,,†â¼±æ€§ãªã—
12.2SXH	è,,†â¼±æ€§ãªã—
12.2SY	è,,†â¼±æ€§ãªã—
12.2SZ	è,,†â¼±æ€§ãªã—
12.2T	è,,†â¼±æ€§ãªã—
12.2TPC	è,,†â¼±æ€§ãªã—
12.2XA	è,,†â¼±æ€§ãªã—
12.2XB	è,,†â¼±æ€§ãªã—
12.2XC	è,,†â¼±æ€§ãªã—
12.2XD	è,,†â¼±æ€§ãªã—

12.2XE	è,,†å¼±æ€§ãªãª—
12.2XF	è,,†å¼±æ€§ãªãª—
12.2XG	è,,†å¼±æ€§ãªãª—
12.2XH	è,,†å¼±æ€§ãªãª—
12.2XI	è,,†å¼±æ€§ãªãª—
12.2XJ	è,,†å¼±æ€§ãªãª—
12.2XK	è,,†å¼±æ€§ãªãª—
12.2XL	è,,†å¼±æ€§ãªãª—
12.2XM	è,,†å¼±æ€§ãªãª—
12.2XN	è,,†å¼±æ€§ãªãª—
12.2XNA	è,,†å¼±æ€§ãªãª—
12.2XNB	è,,†å¼±æ€§ãªãª—
12.2XO	è,,†å¼±æ€§ãªãª—
12.2XQ	è,,†å¼±æ€§ãªãª—
12.2XR	è,,†å¼±æ€§ãªãª—

12.2XS	è,,†å¼±æ€§ãªãª—
12.2XT	è,,†å¼±æ€§ãªãª—
12.2XU	è,,†å¼±æ€§ãªãª—
12.2XV	è,,†å¼±æ€§ãªãª—
12.2XW	è,,†å¼±æ€§ãªãª—
12.2YA	è,,†å¼±æ€§ãªãª—
12.2YB	è,,†å¼±æ€§ãªãª—
12.2YC	è,,†å¼±æ€§ãªãª—
12.2YD	è,,†å¼±æ€§ãªãª—
12.2YE	è,,†å¼±æ€§ãªãª—
12.2YF	è,,†å¼±æ€§ãªãª—
12.2YG	è,,†å¼±æ€§ãªãª—
12.2YH	è,,†å¼±æ€§ãªãª—
12.2YJ	è,,†å¼±æ€§ãªãª—
12.2YK	è,,†å¼±æ€§ãªãª—

12.2YL	è,,†â¼±æ€§ãªã—
12.2YM	è,,†â¼±æ€§ãªã—
12.2YN	è,,†â¼±æ€§ãªã—
12.2YO	è,,†â¼±æ€§ãªã—
12.2YP	è,,†â¼±æ€§ãªã—
12.2YQ	è,,†â¼±æ€§ãªã—
12.2YR	è,,†â¼±æ€§ãªã—
12.2YS	è,,†â¼±æ€§ãªã—
12.2YT	è,,†â¼±æ€§ãªã—
12.2YU	è,,†â¼±æ€§ãªã—
12.2YV	è,,†â¼±æ€§ãªã—
12.2YW	è,,†â¼±æ€§ãªã—
12.2YX	è,,†â¼±æ€§ãªã—
12.2YY	è,,†â¼±æ€§ãªã—
12.2YZ	è,,†â¼±æ€§ãªã—

12.2ZA	è,,†å¼±æ€§ãªãª—
12.2ZB	è,,†å¼±æ€§ãªãª—
12.2ZC	è,,†å¼±æ€§ãªãª—
12.2ZD	è,,†å¼±æ€§ãªãª—
12.2ZE	è,,†å¼±æ€§ãªãª—
12.2ZF	è,,†å¼±æ€§ãªãª—
12.2ZG	è,,†å¼±æ€§ãªãª—
12.2ZH	è,,†å¼±æ€§ãªãª—
12.2ZJ	è,,†å¼±æ€§ãªãª—
12.2ZL	è,,†å¼±æ€§ãªãª—
12.2ZP	è,,†å¼±æ€§ãªãª—
12.2ZU	è,,†å¼±æ€§ãªãª—
12.2ZX	è,,†å¼±æ€§ãªãª—
12.2ZY	è,,†å¼±æ€§ãªãª—
12.2ZYA	è,,†å¼±æ€§ãªãª—

<p>Affected 12.3-Based Releases</p>	<p>First Fixed Release</p>
<p>12.3</p>	
<p>Affected 12.4-Based Releases</p>	<p>First Fixed Release</p>
<p>12.4</p>	<p>12.4</p>
<p>12.4JA</p>	<p>12.4</p>
<p>12.4JK</p>	<p>12.4</p>
<p>12.4JL</p>	<p>12.4</p>
<p>12.4JMA</p>	<p>12.4</p>
<p>12.4JMB</p>	<p>12.4</p>
<p>12.4JMC</p>	<p>12.4</p>
<p>12.4JX</p>	<p>12.4</p>
<p>12.4MD</p>	<p>12.4</p>
<p>12.4MR</p>	<p>12.4(11)MR</p>
<p>12.4SW</p>	<p>12.4(11)SW3</p>

12.4T	æ³ːi¼š12.4(11)Tã, ^ã, Šã%o ðã ð®ãfªãfªãf¼ã, ¹ã ð«ã ðˉè,, †ã¼±æ€šã ðˉã ð,ã, Šã ð¾ã ð»ã, "ã
12.4XA	è,, †ã¼±æ€šã ðªã ð—
12.4XB	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XC	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XD	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XE	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XF	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XG	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XJ	è,, †ã¼±æ€šã ð,ã, Š(æœ€ã^ ðã ð®ã¿®æ£ã ð 12.4T)
12.4XK	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XL	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XM	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XN	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XP	è,, †ã¼±æ€šã ðªã ðªã ð—
12.4XQ	è,, †ã¼±æ€šã ðªã ðªã ð—

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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。