

# Cisco

## IOS, 1/2 af af a, la, sa, ca TCP a « a Š a ' a, Den of Service (DoS) a © è, t a 1/4 ± æ € §



af af % af a, ma, af af ID : cisco-sa-20100812-tcp

[CVE-2010-2827](#)

af a... -e - ca - y : 2010-08-12 21:30

af af a, af sa f 1.1 : Final

CVSS a, 1a, 3a, c : [7.8](#)

af z e z c - : No Workarounds available

Cisco af a, ° ID : [CSCti18193](#)

ae - y ae - e a za « a, ^ a, caef... a ± a - a e è ca za « a, ^ a, ca z y ae - ta © e za... - a 1/4 a a

ae i, è i

Cisco

IOS a, 1/2 af af a, la, sa, ca af af af a, 15.1(2) Ta a TCP c c « af a, sa f a, a « a Š a ' a, ca, ma f af a, 1a

a a © è, t a 1/4 ± æ € sa, a, ca E a © ç " a TM a, ca Y a, a « è a è 1/4 a a z... è | a a, a, Š a 3/4 a a, a € a

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IOS a, 1/2 af af a, la, sa, ca af af af a, 15.1(2) T0 a a, af af af a, 1a - a 3/4 a - a Y a €,

a a © a, ca f % af a, ma, af af a a © <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20100812-tcp> a sa... -e - ca a, ca | a, a 3/4 a TM a €,

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XE a, 1/2 af af a, la, sa, ca © Cisco IOS XR a, 1/2 af af a, la, sa, ca © a Š a, ^ a 3 Cisco NX-

OS a, 1/2 af af a, la, sa, ca a a a a © è, t a 1/4 ± æ € sa © a 1/2 ± é Y z a, a - a a 3/4 a a, a €,

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Cisco af af a, ma, 1a © Cisco

IOSã,½ãf•ãf^ã,|ã,šã,ćãf^ãf^ãf¼ã,¹15.1(2)Tã,'ã®ÿè|Āã—ã|ã,,ã,ã'ã^ã"ã"ã®ãfããfã  
Cisco IOS ã,½ãf•ãf^ã,|ã,šã,ć  
ãf^ãf^ãf¼ã,¹ã,ćç°èã™ã,ã«ã^-ãããfããfãã,ãã,¹ã«ãfã,°ã,ããfãã—ã| show  
version ã,³ãfžãf³ãf%ãã,'ã½;ã£ã|ã€ã,ã,¹ãfãf  
ãfãfšãf¼ã,'è; ç°ã—ã¾ã™ã€, "Internetwork Operating System Software"ã" Cisco  
IOS Software" ã,ã,ã,,ã^-ã"ã,Āã,%ã«éjžã¼ã™ã,ã,ã,¹ãfãf  
ãfãfšãf¼ã«ã,^ã£ã|ãfããfãã,ãã,¹ãš Cisco IOS  
ã,½ãf•ãf^ã,|ã,šã,ćãĀç¼ãã—ã|ã,,ã,ã"ã"ã,ćç°èããšãã¾ã™ã€,  
ããã®ã¼Āã,ã«ã,ããfãf¼ã,ãããĀæ<ã¼šã®é-ã«è; ç°ã•ã,ĀãçĴšã,,ã|  
"Version" ã" Cisco IOS ã,½ãf•ãf^ã,|ã,ã,ã  
ãf^ãf^ãf¼ã,¹ãããĀè; ç°ã•ã,Āã¾ã™ã€,ã»-ã®ã,ã,¹ã,  
ãfããfãã,ãã,¹ãšã^-ã€show version  
ã,³ãfžãf³ãf%ããĀã~ãœ-ã—ããã<ã£ãÿã,šã€ã^ã¥ã®ã#ãšããĀè; ç°ã•ã,Āãÿã

æ¬ã®ã¾ã^-ã€Cisco  
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ENTSERVICES-Mãšã,ã,ã,ã,¹ã,³è£½ã"ã,ćç°ã—ã|ã,,ã¾ã™ã€,

<#root>

Router#

show version

Cisco IOS Software, 2800 Software (C2800NM-ENTSERVICES-M), Version 15.1(2)T,  
RELEASE SOFTWARE (fc1)  
Technical Support: http://www.cisco.com/techsupport  
Copyright ©) 1986-2010 by Cisco Systems, Inc.  
Compiled Mon 19-Jul-10 16:38 by prod\_rel\_team

<output truncated>

Cisco

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ã»-ã®Cisco

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è©³ç´°

TCPä ¯ã€ ¯ãfã,±ãffãf^ã°æ ¯ãf ¯ãffãf^ãf^ãf¼ã, ¯ç°ãçfã ¯sãçjé ¼æ€sã ¯é«~ã ¯,ãfãf¼ã,çã¼ã

Cisco IOSã,½ãfãf^ã,lä,šã,çã ¯STCPæŽç¶šã ¯Ççµ,ã°tã ¯™ã,ã ¯ ¯ã€ ¯ã¼ ¯é€ ¯ã^¶ã¼ã;ãf-ãf-ãfã, ¯(TCB)ã ¯Çã°ã²ã,šã½"ã ¯|ã,°ãã,Çã ¯¾ã ¯™ã€ã,ã°ã²ã,šã½"ã ¯|ã,°ãã,Çã ¯ÿã ¯™ã ¯¹ã ¯|ã ¯

tcp brief

allã,³ãfžãf³ãf%ãfã,ããf³ã,ããf³ã,çãf¼ãfã,šã,ãã,¹(CLI)ã,³ãfžãf³ãf%ã ¯ã°ãšãã ¯«èj ¯ç°ã ¯ã,Çã ¯¾ã ¯

Cisco

IOSã,½ãfãf^ã,lä,šã,çã ¯ãfãf¼ã,ãfšãf³15.1(2)Tã ¯«ã ¯ ¯ã€ ¯ã^ ¯æœÿTCPæŽç¶šã ¯ÇSYNRCVDçš¶æ...

tcp brief

allã,³ãfžãf³ãf%ã ¯ã°ãšãã,èãæã°ãžèãã ¯¹ã,ã ¯ ¯ã€ ¯TCPã,»ãffã,ãfšãf³ã ¯Çã ¯"ã,Çã,°ãã ¯ã ¯

ã ¯"ã ¯è,,tã¼±æ€sã ¯ ¯ã€ ¯ãfãfãfã,ãã,¹ã ¯«ã,ã ¯£ã ¯|çµ,ç« ¯ã ¯ã,Çã ¯ÿã ¯ã ¯¾ã ¯ÿã ¯ ¯ãfã

ãf«ãf¼ã,çã ¯ ¯ã ¯é-ã ¯ã,ãæ-¹ã ¯ãæŽç¶šã ¯Çã ¯"ã ¯è,,tã¼±æ€sã,ã¼ã ¯èµã ¯"ã ¯™ã ¯

<ip address | hostname>

...ã€ ¯ãf-ãfãf³ãf-ãf^ã ¯Çèj ¯ç°ã ¯ã,Çã ¯¾ã ¯™ã€ã,ãf«ãf¼ã,çã ¯«ã,ã ¯£ã ¯|é-ãšãã ¯¾ã ¯ÿã ¯

tcp tcb

0x<address>ã,³ãfžãf³ãf%ã ¯sé-çé€£ã»ã ¯ã,°ãã,Çã ¯ÿTCBã,ã, ¯ãfãã,çã ¯™ã,ã ¯"ã ¯ ¯ã ¯sã€ ¯ã,½ã,

CLIã,³ãfžãf³ãf%ãdebug ip tcp

transactionsã ¯ã°ãšãã,èãçãã ¯¹ã,ã ¯ ¯ã€ ¯ã, ¯ãfãf¼ããfãfã,»ãf¼ã,ã€Çconnection queue

limit reached: port <port number>ã ¯ã ¯¾ã ¯ÿã ¯ã€ÇNo wild listener: port <port

number>ã ¯ã ¯Çèj ¯ç°ã ¯ã,Çã,ã ¯ã ¯ã€ ¯ãfãfãfã,ãã,¹ã ¯«è,,tã¼±æ€sã ¯Çããœ ¯ã ¯™ã,ã ¯ ¯èf¼

ã ¯¾ã ¯ÿã ¯show tcp brief all

CLIã,³ãfžãf³ãf%ã ¯ç¹ã,šèç"ã ¯—ã°ãšãã ¯sããšã ¯ã ¯ã ¯TCBã ¯ÇSYNRCVDã ¯¾ã ¯ÿã ¯SYNSEM

æ¬ã ¯ã¾ã ¯ ¯ã€ ¯TCP

SYNRCVDçš¶æ...ã ¯sèãæã°ã ¯ãHTTPã€ ¯SSHã€ ¯ã ¯šã,ã ¯³Telnetã,»ãffã,ãfšãf³ã ¯Çã ¯ã,ããfã

Example#show tcp brief all

TCB	Local Address	Foreign Address	(state)
07C2D6C8	192.168.0.2.443	192.168.0.5.11660	SYNRCVD
07C38128	192.168.0.2.23	192.168.0.5.35018	SYNRCVD
07C2DD60	192.168.0.2.443	192.168.0.5.19316	SYNRCVD
07C2A8A0	192.168.0.2.80	192.168.0.5.13818	SYNRCVD

<output truncated>

clear tcp tcb  
0x<address>, 'äl/2ç'"ä—ä | é-ćé€£ä™ä, <TCBä, 'ä, -äfä, ćä—ä ¾ä™ä€, ä¾äŸä -ä€ç@;ç  
tcp tcb

\*ä, 'ç™öè;£ä—ä | ä€ä™ä¹ä | ä@TCBä, 'ä, €ä° | ä«ä, -äfä, ćä™ä, <ä"ä"ä,, äšäää  
æ³i¼šä"ä, £ä -ä€ä, ćä, -äftä, £äf-äªTCPæŽŸç¶šä"ä fä fä³ä, °ä—ä | ä,, ä, <TCPæŽŸç¶šä, 'ä

ä"ä@è,, t¼±æ€šä -ä€Cisco Bug ID [CSCti18193](#)  
(ç™»é£²äfiäf¼ä, ¶ä°, ç'"")ä«è"~è¼%öä•ä, £ä—ä | ä,, ä¾ä™ä€, ä"ä@è,, t¼±æ€šä«ä -ä€C  
Vulnerabilities and Exposures(CVE)IDä"ä—ä | CVE-2010-  
2827ä£ä%ö²ä, Šä½"ä | ä, %öä, £ä—ä | ä,, ä¾ä™ä€,

TCPä, çäf—äfä, ±äf¼ä, äfšäf³ä°æ€%öä@æf...ä ±ä@ä, €éf"ä -ä€æ-ja@é ...äšè-aæžä—ä

### TelnetäŠä, ^ä³SSH

Cisco  
IOSäf†äfä, mä, 1äšTelnetä, æžç°çš,, ä«ç,, jaš¹ä«ä™ä, <ä"ä"ä -äššää¾ä>ä, "ä€, è,  
input

noneä, 'èâ@šä™ä, <ä -ä€TCPäfä f¼ä f^23äšæ, aç'"ä•ä, £ä, <ä@ä, 'é²ää"ä"ä -ä£äš  
IOS  
SSHä, müf¼ä fæ©Ÿèf½ä£ä f†ä fä, mä, 1äšè"âššä•ä, £ä—ä | ä,, ä, <ä'ä^ä -ä€transport  
input

noneä, 'äl/2ç'"ä—ä | ä,, ä€TCPä fä f¼ä f^22äš f†ä fä, mä, 1äš£ä, aç'"ä•ä, £ä, <ä"ä"ä -ä  
ä"ä@è,, t¼±æ€šä -ä, 1äf—ä f¼ä fä, £äf³ä, °ä•ä, £äŸIPé€äžja...fä, ćäf%öä f-ä, 1ä, 'äl/2ç'"ä—ä

### äfœä f¼ä f€ä f¼ä, ²ä f¼ä f^ä, lä, šä, mä f—ä fä f^ä, ³ä f«

Border Gateway  
Protocoli¼BGPi¼>ä fœä f¼ä f€ä f¼ä, ²ä f¼ä f^ä, lä, šä, mä f—ä fä f^ä, ³ä f<i¼%öäšè"âššä•ä, £äŸä fä f¼ä, žä  
Time to

Livei¼TTLi¼>ä, €è^â£ä -äç¶šä -èf½æ™, é-"i¼%öä, »ä, äfä fä fä fä, £ä fä, <ä fä, °ä f (GTSM)æ©Ÿèf½ä, 'ä¼  
security hopsä, ³ä fžä f³ä f%öä, 'äl/2ç'"ä—ä | ä@Ÿè£...ä•ä, £ä¾ä™ä€,

BGPä@äžä -ä«ä -ä -ä | ä@èç°ä -ä€ä€žä, "ä fä, çä f¼ä f—ä f@ä, mä, °ä'ä'Bord  
[er Gateway Protocol\(BGP\)ä@äžä -ä€ä, 'ä, ç...šä—ä | äää ää -ä, ä€,](#)

BGPä@TCP  
MD5è"è"¼äššä -ä€ä -ä"ä@è,, t¼±æ€šä@ä, æ£ä^ç'"ä -ä -ä»æçä•ä, £ä¾ä™ä>ä, "ä€,

### âžéç-

... Cisco Applied Mitigation Bulletin (Cisco-amb-2010081-2-tcp) ...

### Cisco IOS ...

#### Cisco Guide to Harden Cisco IOS

Devices ...

- Infrastructure Access Control List (ACL);
- ... (rACL)
- ... (tACL)
- vty
- ... CoPP
- ... (CPPr)

... Cisco Guide to Harden Cisco IOS Devices ...

#### CoPP

TCP ... IOS ...

```
!
!-- The 192.168.1.0/24 network and the 172.16.1.1 host are trusted.
!-- Everything else is not trusted. The following access list is used
!-- to determine what traffic needs to be dropped by a control plane
!-- policy (the CoPP feature.) If the access list matches (permit),
!-- then traffic will be dropped. If the access list does not
!-- match (deny), then traffic will be processed by the router.
!-- Note that TCP ports 22 and 23 are examples; this
!-- configuration needs to be expanded to include all used
!-- TCP ports.
!
```

```
access-list 100 deny tcp 192.168.1.0 0.0.0.255 any eq 22
access-list 100 deny tcp 192.168.1.0 0.0.0.255 any eq 23
```

```
access-list 100 deny tcp host 172.16.1.1 any eq 22
access-list 100 deny tcp host 172.16.1.1 any eq 23
access-list 100 permit tcp any any
```

```
!
!-- 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 that will be policed by
!-- the CoPP feature.
!
```

```
class-map match-all drop-tcp-class
  match access-group 100
```

```
!
!-- Create a policy map that will be applied to the
!-- Control Plane of the device, and add the "drop-tcp-traffic"
!-- class map.
!
```

```
policy-map control-plane-policy
  class drop-tcp-class
    drop
```

```
!
!-- Apply the policy map to the control plane of the
!-- device.
!
```

```
control-plane
  service-policy input control-plane-policy
```

è!Ši¼šā"ā@è,,t¼±æ€Šā,ä,æ£å^©ç""ā™ā,ãŸā,ā«TCPā,1āfāf¼ā,|ā,šā,æfāfāf%ā,.  
å%øèè;°ā@CoPPā@ä¾¼āšāā€æ,ç""ā@åèf½æ€ŠāCEā,ā,āfā,±āffāf^ā"ā€Eper  
Control  
Entry¼^ACEi¼,ā,ç,ā,»ā,1ā,³āfāf^āfāf¼āf«ā, "āfāf^āfāi¼%ā«ā,^ā£ā|ā€ā"ā,CEā,%ā@āf  
āf³āf^āfāf¼āf«āf—āf—āf¼āf³āfāfā,āf³ā,°ā@å@Ÿè£...ā«é-Çā™ā,āf™ā,1āf^āf—āf@ā,ā  
ftā£ā,1ā€āšā,^ā³ā€Žā.³āfāf^āfāf¼āf«āf—āf—āf¼āf³āfāfā,āf³ā,°  
ā€ā,å,ç...šā—ā|āāāāā•ā,ā€,

## ACL

ACL

[Protecting Your Core: Infrastructure Protection Access Control Lists](#)

## BGP

BGP

## Embedded Event Manager(EEM)

Tool Command Language(Tcl)

Cisco IOS Embedded Event Manager(EEM)

IOS

IOS

EEM

Network Management Protocol(SNMP)

Tcl

[Cisco Beyond: Embedded Event Manager\(EEM\)Scripting Community](http://forums.cisco.com/eforum/servlet/EEM?page=eem&fn=script&scriptId=2041)

```
!-- Location where the Tcl script will be stored
event manager directory user policy disk0:/eem
!-- Define variable and set the monitoring interval
!-- as an integer (expressed in seconds)
```

```
event manager environment EEM_MONITOR_INTERVAL 60
```

```
!  
!-- Define variable and set the threshold value as  
!-- an integer for the number of retransmissions  
!-- that determine if the TCP connection is hung  
!-- (a recommended value to use is 15)  
!
```

```
event manager environment EEM_MONITOR_THRESHOLD 15
```

```
!  
!-- Define variable and set the value to "yes" to  
!-- enable the clearing of hung TCP connections  
!
```

```
event manager environment EEM_MONITOR_CLEAR yes
```

```
!  
!-- Define variable and set to the TCP connection  
!-- state or states that script will monitor, which  
!-- can be a single state or a space-separated list  
!-- of states  
!
```

```
event manager environment EEM_MONITOR_STATES SYNRCVD SYNSENT
```

```
!  
!-- Register the script as a Cisco EEM policy  
!
```

```
event manager policy monitor-sockets.tcl
```

```
!
```

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Technical Assistance



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Cisco IOS ã,½ãf•ãf^ã,lã,šã,çã ®èj´i¼^ã,æž²i¼%ã ®ã,,èj;Eã «ã ¯ã€ Cisco IOS  
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è²ã¼^ã ®TMã,¼xãfTMãf¼ã,¹ã ®ãfããfãf¼ã,¹	
12.0 i¼ž 12.4	12.0 i¼ž 12.4ãfTMãf¼ã,¹ã ®ãfããfãf¼ã,¹ã ®ã¼±éÿ
<b>ã¼±éÿ;ã,ã—ã^ã,¼ 15.0 ãfTMãf¼ã,¹ã ®ãfããfãf¼ã,¹</b>	
15.0	ã¼±éÿ;ã,ã—ã^ã,¼ 15.0ãfTMãf¼ã,¹ã ®ãfããfãf¼ã,¹
<b>ã¼±éÿ;ã,ã—ã^ã,¼ 15.1 ãfTMãf¼ã,¹ã ®ãfããfãf¼ã,¹</b>	
15.1T	15.1(2)T0a 15.1(2)T1i¼^2010ã¹´8æe^20æ—ÿã «ã...¥æ%ãã ®èf 15.1(2)Tã,^ã,šã%ãã ®ãfããfãf¼ã,¹ã «ã ®è,,tã¼±æ€šã

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Cisco PSIRT

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# URL

<https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20100812-tcp>

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## 翻訳について

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