

Cisco IPsec IKEv2 Pre-Shared Key Configuration Disclosure

Critical

Cisco IPsec IKEv2 Pre-Shared Key Configuration Disclosure
ID : cisco-sa-20070124-crafted-ip-option

[CVE-2007-0480](#)

Published Date : 2007-01-24 16:00

Severity : Final

CVSS Score : [10.0](#)

Workarounds : No Workarounds available

Cisco IPsec IKEv2 Pre-Shared Key Configuration Disclosure ID : [CSCec71950](#)

This Cisco Security Advisory describes a vulnerability in Cisco IOS Software that could allow an attacker to obtain sensitive information from a Cisco device.

Summary

Cisco IOS Software contains a vulnerability that could allow an attacker to obtain sensitive information from a Cisco device.

The vulnerability is caused by a flaw in the way Cisco IOS handles certain types of network traffic. An attacker can exploit this flaw to send crafted IP packets to a Cisco device, which will then respond with sensitive information such as pre-shared keys used for IPsec connections.

The vulnerability has been assigned a CVSS score of 10.0 and is considered critical. It is recommended that all Cisco IOS devices be updated to the latest version of software to fix this vulnerability.

Pragmatic General

Protocol Independent Multicast version 2 (PIMv2) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

Universal Resource Discovery Directory (URD) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

Protocol Independent Multicast version 1 (IP-MP) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

Protocol Independent Multicast version 2 (IP-MPv2) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

Protocol Independent Multicast version 3 (IP-MPv3) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

Protocol Independent Multicast version 4 (IP-MPv4) Pragmatic General Multicast (PGM) Pragmatic General Rendezvous

[Cisco Security Advisory](https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20070124-crafted-ip-option) for this vulnerability.

Impact

An attacker can use this vulnerability to obtain sensitive information such as pre-shared keys used for IPsec connections.

Cisco IOS Software contains a vulnerability that could allow an attacker to obtain sensitive information from a Cisco device.

The vulnerability is caused by a flaw in the way Cisco IOS handles certain types of network traffic. An attacker can exploit this flaw to send crafted IP packets to a Cisco device, which will then respond with sensitive information such as pre-shared keys used for IPsec connections.

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Operating System

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Cisco Internetwork Operating System Software

IOS (tm) 7200 Software (C7200-IS-M), Version 12.2(14)S16, RELEASE SOFTWARE (fc1)

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Cisco IOS Software, 7200 Software (C7200-IK9S-M), Version 12.3(7)T12, RELEASE SOFTWARE (fc1)

Cisco

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<#root>

RP/0/RP0/CPU0:router#

show version

Cisco IOS XR Software, Version 3.3.0
Copyright (c) 2006 by cisco Systems, Inc.
ROM: System Bootstrap, Version 1.32(20050525:193559) [CRS-1 ROMMON]

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AND

2. ICMP: Address掩码请求 (Type 8)
ICMPv4: 80000000 00000000 00000000 00000000

- ICMP: Address掩码请求 (Type 8)
ICMPv4: 80000000 00000000 00000000 00000000
- ICMP: 地址掩码请求 (Type 13)
ICMPv4: 80000000 00000000 00000000 00000000
- ICMP: 地址掩码响应 (Type 15)
ICMPv4: 80000000 00000000 00000000 00000000
- ICMP: 地址掩码请求 (Type 17)
ICMPv4: 80000000 00000000 00000000 00000000
- PIMv2: IP地址掩码请求 (Type 103)
ICMPv4: 80000000 00000000 00000000 00000000
- PGM: IP地址掩码请求 (Type 113)
ICMPv4: 80000000 00000000 00000000 00000000
- URD: TCP地址掩码请求 (Type 465)
ICMPv4: 80000000 00000000 00000000 00000000

AND

3. 与ICMP、IP、TCP、UDP、IGMP等协议的结合使用

ICMP与ICMPv4结合使用，ICMPv4报文头为：00000000 00000000 00000000 00000000

IP与IPv4结合使用，IPv4报文头为：00000000 00000000 00000000 00000000

TCP与TCPv4结合使用，TCPv4报文头为：00000000 00000000 00000000 00000000

UDP与UDPv4结合使用，UDPv4报文头为：00000000 00000000 00000000 00000000

IGMP与IGMPv4结合使用，IGMPv4报文头为：00000000 00000000 00000000 00000000

与ICMPv4结合使用，ICMPv4报文头为：00000000 00000000 00000000 00000000

与IPv4结合使用，IPv4报文头为：00000000 00000000 00000000 00000000

与TCPv4结合使用，TCPv4报文头为：00000000 00000000 00000000 00000000

- Cisco IOS® Cisco Bug ID [CSCec71950](#)(ç™»éŒ²äf½ä,¶å°,ç”“)
- Cisco IOS XR® Cisco Bug ID [CSCEh52410](#)(ç™»éŒ²äf½ä,¶å°,ç”“)

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Cisco IOS XR

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```
<#root>

router#
show running-config | include information-reply
ip information-reply
```

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<#root>

router#
show running-config

interface FastEthernet0/0
 ip address 192.0.2.1 255.255.255.0
 ip information-reply
```

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```
<#root>

router#
show running-config | include mask-reply
ip mask-reply
```

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<#root>

router#

show running-config

```
interface FastEthernet0/0
 ip address 192.0.2.1 255.255.255.0
 ip mask-reply
```

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<#root>

RP/0/RP0/CPU0:router#

show running-config | include mask-reply

Building configuration...

 ipv4 mask-reply

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<#root>

RP/0/RP0/CPU0:router#

show running-config

```
interface POS0/1/3/0
 ipv4 address 192.0.2.1 255.255.255.252
 ipv4 mask-reply
```

Protocol Independent Multicast Version

2(PIMv2)ç”“ã¢«è?“å®šã¢•ã,Œã¢?Ýã¢f‡ã¢fã¢,¤ã,¹

Cisco IOS

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```
<#root>
router#
show running-config | include ip pim
ip pim sparse-mode
```

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```
<#root>
router#
show running-config

interface FastEthernet0/0
 ip address 192.0.2.1 255.255.255.0
 ip pim sparse-dense-mode
```

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interfaceã,³ãfžãf³ãf%oã,’ä½ç”ã♦—ã♦|ã€♦ãf«ãf%ã,¿ã♦ŒPIMv2ãfã,±ãffãf^ã,'å‡!ç♦†ã♦™ã,<ã,^ã♦†

```
<#root>
router#
show ip pim interface

Address      Interface      Ver/      Nbr      Query   DR      DR
                  Mode       Count     Intvl    Prior
192.0.2.1    FastEthernet0/0   v1/S      0        30      1      0.0.0.0
192.168.1.1   FastEthernet1/0   v2/SD     0        30      1      0.0.0.0
```

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PIMã®è©³ç'ºã«ã¤¤ã„ã|ã—ã€http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.3/multicast/

Cisco IOS XR

show pim

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<#root>

RP/0/0/CPU0:router#

show pim interface

Address	Interface	PIM	Nbr	Hello	DR	DR
			Count	Intvl		Prior
192.168.1.1	Loopback0	on	1	30	1	this system
192.168.2.1	MgmtEth0/0/CPU0/0	off	0	30	1	not elected
192.168.3.1	Loopback1	on	1	30	1	this system
192.168.4.1	Loopback3	on	1	30	1	this system
192.168.5.1	POS0/4/0/0	on	1	30	1	this system
192.0.2.1	POS0/4/0/1	on	1	30	1	this system

PIMv2ã,’å®ÝèjŒã—ã¤|ã¤„ã,<ã¤¤ãf³ã,¿ãf¼ãf•ã,§ã,¤ã,¹ã—ã€PIMå—ã¤®ä,<ã¤«onã¤”èj”ç¤ºã¤

Cisco IOS XRã—PIMv1ã,’ã,µäf¤äf¼äf^ã—ã¤|ã¤„ã¤¾ã¤›ã,”ã€,Cisco IOS

XRã¤§ã¤—ã€PIMã¤—ã‡äf•ã,©äf¤äf^ã¤§æœ‰oåŠ¹ã¤«ã¤¤ã¤£ã¤|ã¤„ã¤¾ã¤›ã,”ã€,

Cisco IOS

XRã¤§ã¤®PIMã¤®è©³ç'ºã¤«ã¤¤ã„ã|ã—ã€http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r

Pragmatic General Multicast(PGM)ç”ã¤«è”å®šã¤•ã,CŒã¤Ýäf¤äf¤ã,¤ã,¹

PGMäf‘ã,±äffäf^ã,’å‡|ç¤†ã¤™ã,<ã,^ã¤†ã¤«è”å®šã¤•ã,CŒã¤|ã¤„ã,<ãf¤äf¼ã,¿ã¤«ã¤—ã€¤ã,¤ãf³ã,

pgm

routerã¤Œè”å®šã¤•ã,CŒã¤|ã¤„ã¤¾ã¤™ã€,ã¤”ã,CŒã¤—ã€¤æ¬jã®ä¾ã¤«ç¤ºã¤™ã,^ã¤†ã¤«

running-configã,fžäf³äf‰oã,’ç™øèjŒã¤™ã,<ã¤“èj”ç¤ºã¤§ã¤¤ã¤¾ã¤™ã€,

<#root>

router#

show running-config | include ip pgm

ip pgm router


```
show running-config | include ip urd
```

```
ip urd
```

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```
<#root>
```

```
router#
```

```
show running-config | include ip urd
```

```
ip urd proxy
```

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```
<#root>
```

```
router#
```

```
show running-config
```

```
interface FastEthernet1/0
  ip address 192.0.2.1 255.255.255.0
  ip pim sparse-mode
  ip urd
```

ã¢¾ã¢¥ã¢-

```
<#root>
```

```
router#
```

```
show running-config
```

```
interface FastEthernet1/0
  ip address 192.0.2.1 255.255.255.0
  ip pim sparse-dense-mode
  ip urd proxy
```

ã¢¾ã¢¥ã¢-

```
<#root>
```


ãf^ãf©ãf³ã, ãffãf^ã, ãf, -ã, »ã, ^ã, ^ãf³ãf^ãf¹/₄ãf<ãf^ã, ^ãf^(ACL)

æ¬;ã♦®ã, ãf—ã♦®ãf^ãf©ãf•ã, ïäffã, -ã, 'ãf-ãfaffã, -ã♦™ã, <ã, ^ãf³ã, ãf¹/₄ãf•ã, ïã, ^ã, ^ãf¹ACLã, 'è .. å®šã♦

- ã, ..ã, ^ãf¹/₄(ping)ICMPã, ãf, ^ãf—8
- ã, ã, ^ãf ã, ^ã, ^ãf³ãf—ICMPã, ãf, ^ãf—13
- æf...å ±è!♦æ±, ICMPã, ãf, ^ãf—15
- ã, ^ãf%oãf¬ã, ^ãfžã, ^ã, -è!♦æ±, ICMPã, ãf, ^ãf—17
- Protocol Independent Multicast(PIM)IPãf—ãfaffã, ^ãf<103
- Pragmatic General Multicast(PGM)IPãf—ãfaffã, ^ãf<113
- URL Rendezvous Directory(URD)TCPãf♦ãf¹/₄ãf^465

Internet Control Message Protocoli¹/₄ICMPi¹/₄ã, ^ãf³ã, ãf¹/₄ãf♦ãffãf^ã ^¶å³/ãfjãffã, »ãf¹/₄ã, ^ãf—ãf-
ãf^ã, ^ãf<1/4%oã♦-ã€♦Transmission Control Protocol/Internet

Protocoli¹/₄TCP/IPi¹/₄æ¹/₄é€♦å^¶å³/ãf—ãfaffã, ^ãf</ã, ^ãf³ã, ãf¹/₄ãf♦ãffãf^ãf—ãfaffã, ^ãf<1/4%oãf—ãf-
pingã, 'ä½¿ç"”ã♦™ã, <Windowsã♦®tracerouteã♦^ã, ãf♦®è ..æ-ãf-ãf♦ãf¹/₄ãf^ã♦«å½±éÝçã, 'ä, žã♦

ãf‡ãf♦ã, ^ã, ^ã♦®PIMã€♦PGMã€♦ã♦³/ã♦Ýã♦-URDã, 'å‡!ç♦†ã♦™ã, <ã, ^ã♦†ã♦«è .. å®šã♦•ã, ®æ

ã♦“ã, ®æ, %oã♦®ãfã, ±ãffãf^ã♦®é€♦æ-ã...fIPã, Çãf%oãf¬ã, ^ã-ç°|å♦~ã♦«ã, ^ãf—ãf¹/₄ãf•ã, ïäf³ã, ^ã

æ¬;ã♦®ACLã♦-ã€♦æ”»æ'fãf^ãf©ãf•ã, ïäffã, -ã, 'ãf-ãfaffã, -ã♦™ã, <ã, ^ã♦†ã♦«ç%o¹å^¥ã♦«è .. è .. ^ã♦•ã, ®æ

```
access-list 150 deny    icmp any any echo
access-list 150 deny    icmp any any information-request
access-list 150 deny    icmp any any timestamp-request
access-list 150 deny    icmp any any mask-request
access-list 150 deny    tcp any any eq 465
access-list 150 deny    103 any any
access-list 150 deny    113 any any
access-list 150 permit ip any any
```

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

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æ¬;ã♦®Cisco IOS XR

ACLã♦-ã€♦æ”»æ'fãf^ãf©ãf•ã, ïäffã, -ã, 'ãf-ãfaffã, -ã♦™ã, <ã, ^ã♦†ã♦«ç%o¹å^¥ã♦«è .. è .. ^ã♦•ã, ®æ

```
ipv4 access-list ios-xr-transit-acl
10 deny    icmp any any echo
20 deny    icmp any any information-request
30 deny    icmp any any timestamp-request
```

```

40 deny    icmp any any mask-request
50 deny    tcp any any eq 465
60 deny    103 any any
70 deny    113 any any
80 permit   ip any any

interface POS 0/2/0/
  ipv4 access-group ios-xr-transit-acl ingress

```

Cisco IOS

XRãšã®ãšã, »ã, 1ãfãš, 1ãfã®è „å®šã«ã§ã, ,ã§|ã§-ã€<http://www.cisco.com/en/US/docs>

ã§ãf³ãf•ãf©ã, 1ãf^ãf©ã, -ãf§ãfÆ ACL

ãf§ãffãf^ãf-ãf¼ã, -ã, 'ç§»å•ã§™ã, <ãf^ãf©ãf•ã, fãffã, -ã, 'ãf-ãfãffã, -ã§™ã, <ã§®ã§-å¾€ã...ã§«ã§ãf§ãf§ã, ,ã§«é€ã, %oã, Çã§|ã§-ã§^ã§^ã§, %oã§^ã§, ,ãf^ãf©ãf•ã, fãffã, -ã, 'è~å^¥ã§—ã€ã§ãf§ãffãACL ã§-ãf§ãffãf^ãf-ãf¼ã, -ã, »ã, ãf¥ãf^ãftã, fã§®ãf™ã, 1ãf^ãf—ãf—ãf©ã, -ãftã, fã, 1ã§^è€fã§^ã, %oã, Çã§|ã§Šã, Šã€ã§ã§"ã§"ã§§ã§®ç%o¹å®šã§®è,, tå¼±æ€§ã, »ã, ãf¥ãf^ãftã, fã§, ,ã§®é•æœŸçš,,ã§^ã§»~åŠ æ©Ÿèf½ã§-ã§—ã§|è€fæ...®ã§™ã, <ã§...è|ã§Ç§ACL ã§®ä¾ã§-ã§€ã, ,ã§³ãf•ãf©ã, 1ãf^ãf©ã, -ãf§ãfÆ IP ã, çãf%oãf-ã, 1ç-, å»²å†...ã§® IP ã, çãf%oãf-ã, 1ã, 'æÇ§ã§§ã§™ã, 1ã§|ã§®ãf§ãf§ã, ,ã§, 1ã, 'ä¿§è·ã§™ã, <ã§Ÿã, ,ã§«é...ã§å, ,ã§™ã, ,ã§, ,çã, -ã, »ã, 1ãf^ã, 1ãf^ã§®ã, ,éf^ã§-ã§—ã§|å§«ã, ,ã§, ,ã§...è|ã§ã§Ç§ã§, ,ã§, Šã§¾ã§™ã, ,

Cisco IOS

```

access-list 150 deny    icmp any INFRASTRUCTURE_ADDRESSES echo
access-list 150 deny    icmp any INFRASTRUCTURE_ADDRESSES information-request
access-list 150 deny    icmp any INFRASTRUCTURE_ADDRESSES timestamp-request
access-list 150 deny    icmp any INFRASTRUCTURE_ADDRESSES mask-request
access-list 150 deny    tcp any INFRASTRUCTURE_ADDRESSES eq 465
access-list 150 deny    103 any INFRASTRUCTURE_ADDRESSES
access-list 150 deny    113 any INFRASTRUCTURE_ADDRESSES
access-list 150 permit   ip any any

interface serial 2/0
  ip access-group 150 in

```

Cisco IOS XR

```

ipv4 access-list ios-xr-infrastructure-acl
10 deny    icmp any INFRASTRUCTURE_ADDRESSES echo
20 deny    icmp any INFRASTRUCTURE_ADDRESSES information-request
30 deny    icmp any INFRASTRUCTURE_ADDRESSES timestamp-request
40 deny    icmp any INFRASTRUCTURE_ADDRESSES mask-request
50 deny    tcp any INFRASTRUCTURE_ADDRESSES eq 465

```


◊ “ã♦®è,,†å¼±æ€§ã,’è»½æ,›ã♦™ã,‹ã♦«ã♦~ã€♦ã,³ãƒãf^ãfãf¼ãf«ãf—ãf—ãf¼ãf³ã♦ãf³ã,·ãf³ã,°(CoP
 IP ã,ºãf—ã,·ãf§ãf³ã»~ã♦♦ãf'ã,±ãffãf^ã♦®å‡|ç♦†æ-¹æ³•ã♦®ã♦Ýã,♦ã♦«ã€♦CoPP
 ã♦~è‡ªãf«ãf¼ã,¿ãf¼å®›ã♦®æ”»æ'fãf'ã,±ãffãf^ã♦«é♦©ç”“ã♦•ã,Œã,‹ã♦ ã♦’ã♦§ã♦ªã♦ã€♦ã♦ã♦
 IP
 ã,¢ãf‰ãf—ã,¹ã♦®ãf'ã,±ãffãf^ã♦«ã,,é♦©ç”“ã♦•ã,Œã♦¾ã♦™ã€,ã♦“ã,Œã♦~ã€♦ãf«ãf¼ã,¿è‡ªä½“ã

```

access-list 100 permit icmp any any echo
access-list 100 permit icmp any any information-request
access-list 100 permit icmp any any timestamp-request
access-list 100 permit icmp any any mask-request
access-list 100 permit tcp any any eq 465
access-list 100 permit 103 any any
access-list 100 permit 113 any any
access-list 100 deny ip any any
!
class-map match-all drop-options-class
  match access-group 100
!
!
policy-map drop-options-policy
  class drop-options-class
    drop
!
control-plane
  service-policy input drop-options-policy
  
```

Cisco IOS ãf^ãf—ã,¤ãf³ 12.0Sã€♦ 12.2Sã€♦ã♦Šã,^ã♦³ 12.2SX
 ã♦§ã♦~ã€♦ãf♦ãf'ã,·ãf¼ãfžãffãf—ã♦®æ§<æ-‡ã♦Œç•°ã♦ªã,‹ã♦~ã♦«æ³”æ,,♦ã♦—ã♦|ã♦

```

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

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 ã,ºãf—ã,·ãf§ãf³ã»~ã♦♦ãf'ã,±ãffãf^ã♦®å‡|ç♦†æ-¹æ³•ã♦®ã♦Ýã,♦ã♦«ã€♦CoPP
 ã♦~è‡ªãf«ãf¼ã,¿ãf¼å®›ã♦®æ”»æ'fãf'ã,±ãffãf^ã♦«é♦©ç”“ã♦•ã,Œã,‹ã♦ ã♦’ã♦§ã♦ªã♦ã€♦ã♦ã♦
 IP
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 IP
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 IP ãf^ãf@ãf•ã,£ãffã,~ã♦~è~±å♦~ã♦—ã♦¾ã♦™ã€,

```

ip access-list extended drop-affected-options
permit icmp any any echo option any-options
permit icmp any any information-request option any-options
permit icmp any any timestamp-request option any-options
permit icmp any any mask-request option any-options
permit pim any any option any-options
permit 113 any any option any-options
permit tcp any any eq 465 option any-options
deny ip any any
!
class-map match-all drop-options-class
  match access-group name drop-affected-options
!
!
policy-map drop-opt-policy
  class drop-options-class
    drop
!
control-plane
  service-policy input drop-opt-policy

```

12.2S Cisco

IOS 12.2S (Release 12.2SX) Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

```

policy-map drop-opt-policy
  class drop-options-class
    police 32000 1500 1500 conform-action drop exceed-action drop

```

CoPP Cisco IOS 12.2SX Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.0S Cisco IOS 12.2SX Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

IP Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

PGM Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

CoPP Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

12.2S Cisco IOS Software, Version 12.2(3T)T, RELEASE SOFTWARE (12.4) Cisco IOS Software, Version 12.4(3)T, RELEASE SOFTWARE (12.4T)

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ã♦”å¾Œç¶šã♦®ã,çäf%oãf♦ã,¤ã,¶äf^ã,,å♦,ç...§ã—ã♦|ã€♦å•♦é;Œã♦®è§£æ±°çŠ¶æ³♦ã♦”å®
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Technical Assistance

Centerï¼^TACï¼%oã♦¾ã♦Ýã♦¬å¥'ç’ã,’çµ♦ã,“ã♦§ã♦,,ã,«äfjäf³äftäf§ãf³ã,
ãf—ãfäf♦ã,¤ãf€äf^{1/4}ã♦«ã♦§ã•♦ã♦,,å♦^ã♦>ã♦♦ã♦ã♦•ã♦,,ã€,

Cisco IOS ã,½ãf^ãf^ã,|ã,§ã,çä♦®è|”ï¼^ã,«äZ²ï¼%oã♦®å♦,,è|Œã♦«ã♦¬ã€♦äf^ãf^{1/4}ã,
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ãf^ãf¬ã,¤ãf³ã♦»«è,,tå½±æ€§ã♦Œã♦,ã,«å’å♦^ã♦¬ã€♦ä¿®æ£ã,’å♦«ã,€æœ€å^♦ã♦®äf^ãf^{1/4}ã,ï¼

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ãf©äf™äf«ä»¥ã,§iï¼%oã♦«ã,çäffäf—ã,°ãf¬ãf^{1/4}ãf%oã♦—ã♦|ã♦™ã,<å¿...è|♦ã♦Œã♦,ã,§ã♦¾ã♦™ã

ã€Œäf^ãf“äf«äf%oã♦ã♦§ã,^ã♦¾ã€Œäfjäf³äftäf§ãf³ã,^ã€♦ã♦”ã♦,,ã♦^ç””èäžã♦®è©³ç’°ã♦«ã♦¤ã
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Noticeã♦¬1ã»¶ã♦§ã♦™ã€,å♦,,ã,çäf%oãf♦ã,¤ã,¶äf^ã♦«ã♦¬ã€♦ã,çäf%oãf♦ã,¤ã,¶äf^ã♦«è”è¼%
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[bundle](#)ã♦§ã...¥æ%o<ã♦§ã♦ã€♦2007å’1æœ^24æ—¥ã♦®æ™,ç,^ã♦§ã...¬é—[ã♦•ã,Œã♦|ã♦,,ã,«ã♦](#)
Noticeã♦®äf^ãf³ã,^ã,’æ¬;ã♦«ç¤ºã♦—ã♦¾ã♦™ã€,

- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20070124-ios-ipv6>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20070124-crafted-tcp>
- <https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20070124-crafted-ip-option>
- <http://www.cisco.com/warp/public/770/fn62613.shtml>

ã,µžäf^{1/4}ã,¤ã,¤ãf (DST) ã♦®å¤%oæ,‘ã,’å♦«ã,€ã,½ãf^ãf^ã,|ã,§ã,çäf»äf^ãf^ãf«äf%oã♦—
2007å’3æœ^ã♦«æ?♦ä¾>ã♦•ã,Œã♦¾ã♦™ã€,ã♦”ã,Œã♦«ã♦¤ã,„ã♦|ã♦®äf^ã,^ã,^ã,^ãf^ã♦—
Technical Assistance

Centerï¼^TACï¼%oã♦¾ã♦§ç›’æž¥ã♦§ã•♦ã♦,,å♦^ã,♦ã♦>ã♦?♦ã♦—ã♦•ã♦,,ã€,ã♦?♦ã♦®éš,ã♦«ã♦

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12.0	è,,†å¼±æ€§ã♦,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã♦!ã♦?ã♦ã♦
12.0DA	è,,†å¼±æ€§ã♦,ã,Šã€♦12.2(10)DA5ä»¥é™♦ã♦«ç§»è;Œ
12.0DB	è,,†å¼±æ€§ã♦,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.0DC	è,,†å¼±æ€§ã♦,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.0S	12.0(27)S3
12.0SC	è,,†å¼±æ€§ã♦,ã,Šã€♦12.3(9a)BCä»¥é™♦ã♦«ç§»è;Œ
12.0SL	è,,†å¼±æ€§ã♦,ã,Šã€♦12.0(28)Sä»¥é™♦ã♦«ç§»è;Œ
12.0SP	è,,†å¼±æ€§ã♦,ã,Šã€♦12.0(28)Sä»¥é™♦ã♦«ç§»è;Œ
12.0ST	è,,†å¼±æ€§ã♦,ã,Šã€♦12.0(28)Sä»¥é™♦ã♦«ç§»è;Œ
12.0SX	12.0(25)SX11
12.0SY	
12.0SZ	
12.0T	è,,†å¼±æ€§ã♦,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã♦!ã♦?ã♦ã♦

12.0W	12.0(28)W5(32b)
12.0WC	12.0(5)WC15
12.0WT	è,,†å¼±æ€§ã,ã,Šã€,TACã«ã?Šå•?ã?„å?^ã,?ã?>ã?♦?ã? a?•ã?
12.0XA	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XB	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XC	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XD	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XE	è,,†å¼±æ€§ã,ã,Šã€?12.1(23)Eä»¥é™?ã?«ç§»è;Œ
12.0XF	è,,†å¼±æ€§ã?ã?—
12.0XG	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XH	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XI	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XJ	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XK	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?
12.0XL	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?♦?ã? a?

12.0XM	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.0XN	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.0XQ	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.0XR	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.0XS	è,,†å¼±æ€§ã,ã,Šã€?12.1(23)Eä»¥é™?ã?«ç§»è;Œ
12.0XV	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.0XW	è,,†å¼±æ€§ã,ã,Šã€?12.0(5)WC15ä»¥é™?ã?«ç§»è;Œ
è©²å½“ã?™ã,< 12.1 ãf™ãf¼ã,¹ã?®ãfãfãf¼ã,¹	ãfãf“ãf «ãf‰
12.1	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.1AA	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.1AX	è,,†å¼±æ€§i¼šc3750- MEã?®å`å?ã€?12.2(25)EYä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?
12.1AY	è,,†å¼±æ€§ã,ã,Šã€?12.1(22)EA8ã?«ç§»è;Œ
12.1AZ	è,,†å¼±æ€§ã,ã,Šã€?12.1(22)EA8ã?«ç§»è;Œ
12.1CX	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™?ã?«ç§»è;Œã?—ã? ã?ã?ã?ã?

12.1DA	è,,†å¼±æ€§ã,ã,Šã€♦12.2(10)DA5ä»¥é™♦ã♦«ç§»è;Œ
12.1DB	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.1DC	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.1E	
12.1EA	12.1(22)EA8
12.1EB	
12.1EC	è,,†å¼±æ€§ã,ã,Šã€♦12.3(9a)BCä»¥é™♦ã♦«ç§»è;Œ
12.1EO	12.1(19)EO6
	12.1(20)EO3
12.1EU	è,,†å¼±æ€§ã,ã,Šã€♦12.2(25)EWAä»¥é™♦ã♦«ç§»è;Œ
12.1EV	è,,†å¼±æ€§ã,ã,Šã€,12.2(26)SV1ä»¥é™♦ã♦«ç§»è;Œ—ã♦!ã♦?ã
12.1EW	è,,†å¼±æ€§ã,ã,Šã€♦12.2(18)EW3ä»¥é™♦ã♦«ç§»è;Œ
12.1EX	è,,†å¼±æ€§ã,ã,Šã€♦12.1(23)Eä»¥é™♦ã♦«ç§»è;Œ
12.1EY	è,,†å¼±æ€§ã,ã,Šã€♦12.1(23)Eä»¥é™♦ã♦«ç§»è;Œ
12.1EZ	è,,†å¼±æ€§ã,ã,Šã€♦12.1(23)Eä»¥é™♦ã♦«ç§»è;Œ

12.1T	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XA	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XB	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XC	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XD	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XE	è,,†å¼±æ€§ã,ã,Šã€♦12.1(23)Eä»¥é™♦ã♦«ç§»è;Œ
12.1XF	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XG	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XH	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XI	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?ã♦ã♦ã♦
12.1XJ	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XL	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XM	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XP	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XQ	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ

12.1XR	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XS	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã? ã?♦ã?ã?
12.1XT	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XU	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XV	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1XW	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã? ã?♦ã?ã?
12.1XX	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã? ã?♦ã?ã?
12.1XY	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã? ã?♦ã?ã?
12.1XZ	è,,†å¼±æ€§ã,ã,Šã€,12.2(37)ä»¥é™♦ã♦«ç§»è;Œ—ã? ã?♦ã?ã?
12.1YA	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YB	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YC	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YD	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YE	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YF	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ

12.1YH	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YI	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.1YJ	è,,†å¼±æ€§ã,ã,Šã€♦12.1(22)EA8ã♦«ç§»è;Œ
è©²å½“ã♦™ã,< 12.2 ãƒ™ãƒ¼ã,¹ã♦®ãƒªãƒªãƒ¼ã,¹	ãƒªãƒ“ãƒ«ãƒ‰
12.2	12.2(34a)
12.2B	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2BC	è,,†å¼±æ€§ã,ã,Šã€♦12.3(9a)BCä»¥é™♦ã♦«ç§»è;Œ
12.2BW	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.2BY	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2BZ	è,,†å¼±æ€§ã,ã,Šã€♦12.3(7)XI8ä»¥é™♦ã♦«ç§»è;Œ
12.2CX	è,,†å¼±æ€§ã,ã,Šã€♦12.3(9a)BCä»¥é™♦ã♦«ç§»è;Œ
12.2CY	è,,†å¼±æ€§ã,ã,Šã€♦12.3(9a)BCä»¥é™♦ã♦«ç§»è;Œ
12.2CZ	è,,†å¼±æ€§ã,ã,Šã€,TACã♦«ã♦Šå•♦ã♦„å♦^ã,♦ã♦»ã♦?♦ã♦ ã♦?♦ã♦ ã♦?♦ã♦
12.2DA	12.2(10)DA5 12.2(12)DA10

12.2DD	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2DX	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2EU	è,,†å¼±æ€§ã,ã,Šã€♦12.2(25)EWA5ä»¥é™♦ã♦«ç§»è;Œ
12.2EW	12.2(18)EW3 12.2(20)EW4
12.2EWA	12.2(20)EWA4
12.2EX	
12.2EY	ã♦™ã♦¹ã♦ ã♦®12.2EYäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2EZ	ã♦™ã♦¹ã♦ ã♦®12.2EZäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2FX	ã♦™ã♦¹ã♦ ã♦®12.2FXäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2FY	ã♦™ã♦¹ã♦ ã♦®12.2FYäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2FZ	ã♦™ã♦¹ã♦ ã♦®12.2FZäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2IXA	ã♦™ã♦¹ã♦ ã♦®12.2IXAäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2IXB	ã♦™ã♦¹ã♦ ã♦®12.2IXBäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦
12.2IXC	ã♦™ã♦¹ã♦ ã♦®12.2IXCäƒªäƒªäƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦ ã♦,,ã♦

12.2JA	è,,†å¼±æ€§ã,ã,Ñã€,12.3(8)JÄ»¥é™♦ã♦«ç§»è;Œã♦—ã♦!ã♦ã♦ã♦ã
12.2JK	è,,†å¼±æ€§ã,ã,Ñã€♦12.4(4)TÄ»¥é™♦ã♦«ç§»è;Œ
12.2MB	è,,†å¼±æ€§ã,ã,Ñã€♦12.2(25)SW1ä»¥é™♦ã♦«ç§»è;Œ
12.2MC	12.2(15)MC2h
12.2S	
12.2SB	
12.2SBC	ã♦™ã♦¹ã♦!ã♦®12.2SBCäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SE	
12.2SEA	ã♦™ã♦¹ã♦!ã♦®12.2SEAäƒ¤ãƒ¤ãƒ¼ã,¹ã♦—ä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SEB	ã♦™ã♦¹ã♦!ã♦®12.2SEBäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SEC	ã♦™ã♦¹ã♦!ã♦®12.2SECäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SED	ã♦™ã♦¹ã♦!ã♦®12.2SEDäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SEE	ã♦™ã♦¹ã♦!ã♦®12.2SEEäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SEF	ã♦™ã♦¹ã♦!ã♦®12.2SEFäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã
12.2SEG	ã♦™ã♦¹ã♦!ã♦®12.2SEGäƒ¤ãƒ¤ãƒ¼ã,¹ã♦Œä¿®æ£ã♦•ã,Œã♦!ã♦„ã

12.2SG	ã◆™ã◆¹ã◆ ã◆®12.2SGãƒªãƒªãƒ¼ã,¹ã◆~ã¿®æ£æ,^ã◆¿
12.2SGA	ã◆™ã◆¹ã◆ ã◆®12.2SGAãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆ ã◆„ã
12.2SO	12.2(18)SO7
12.2SRA	ã◆™ã◆¹ã◆ ã◆®12.2SRAãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆ ã◆„ã
12.2SRB	ã◆™ã◆¹ã◆ ã◆®12.2SRBãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆ ã◆„ã
12.2SU	è,,†å¹⁴±æ€§ã◆,ã,Šã€◆12.3(14)Tä»¥é™◆ã◆«ç§»è;Œ
12.2SV	
12.2SW	12.2(25)SW1
12.2SX	è,,†å¹⁴±æ€§ã◆,ã,Šã€◆12.2(17d)SXB11aä»¥é™◆ã◆«ç§»è;Œ
12.2SXA	è,,†å¹⁴±æ€§ã◆,ã,Šã€◆12.2(17d)SXB11aä»¥é™◆ã◆«ç§»è;Œ
12.2SXB	12.2(17d)SXB11a
12.2SXD	12.2(18)SXD7a
12.2SXE	ã◆™ã◆¹ã◆ ã◆®12.2SXEãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆ ã◆„ã
12.2SXF	ã◆™ã◆¹ã◆ ã◆®12.2SXFãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆ ã◆„ã
12.2SY	è,,†å¹⁴±æ€§ã◆,ã,Šã€◆12.2(17d)SXB11aä»¥é™◆ã◆«ç§»è;Œ

12.2SZ	è,,†å¼±æ€§ã,ã,Šã€◆12.2(25)Sä»¥é™◆ã◆«ç§»è;Œ
12.2T	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2TPC	è,,†å¼±æ€§ã,ã,Šã€,TACã◆«ã◆Šå•◆ã◆„å◆^ã,◆ã◆>ã◆?ã◆ã◆ã◆•ã◆
12.2XA	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XB	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XC	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2XD	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XE	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XF	è,,†å¼±æ€§ã,ã,Šã€◆12.3(9a)BCä»¥é™◆ã◆«ç§»è;Œ
12.2XG	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XH	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XI	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XJ	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XK	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XL	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ

12.2XM	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XN	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XQ	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XR	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XS	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XT	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XU	è,,†å¼±æ€§ã,ã,Šã€◆12.3(12)ä»¥é™◆ã◆«ç§»è;Œ
12.2XV	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2XW	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YA	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YB	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YC	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YD	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YE	è,,†å¼±æ€§ã,ã,Šã€◆12.2(25)Sä»¥é™◆ã◆«ç§»è;Œ
12.2YF	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ

12.2YG	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YH	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YJ	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YK	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YL	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YM	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YN	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YO	è,,†å¼±æ€§ã ^a ã◆—
12.2YP	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YQ	è,,†å¼±æ€§ã,ã,Šã€◆12.3(4)T13ä»¥é™◆ã◆«ç§»è;Œ
12.2YR	è,,†å¼±æ€§ã,ã,Šã€◆12.3(4)T13ä»¥é™◆ã◆«ç§»è;Œ
12.2YS	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YT	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)ä»¥é™◆ã◆«ç§»è;Œ
12.2YU	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.2YV	è,,†å¼±æ€§ã,ã,Šã€◆12.3(4)T13ä»¥é™◆ã◆«ç§»è;Œ

12.2YW	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)Tä»¥é™♦ã♦«ç§»è;Œ
12.2YX	è,,†å¼±æ€§ã,ã,Šã€♦12.3(14)Tä»¥é™♦ã♦«ç§»è;Œ
12.2YY	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2YZ	è,,†å¼±æ€§ã,ã,Šã€♦12.2(25)Sä»¥é™♦ã♦«ç§»è;Œ
12.2ZA	è,,†å¼±æ€§ã,ã,Šã€♦12.2(17d)SXBaä»¥é™♦ã♦«ç§»è;Œ
12.2ZB	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)Tä»¥é™♦ã♦«ç§»è;Œ
12.2ZC	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)Tä»¥é™♦ã♦«ç§»è;Œ
12.2ZD	è,,†å¼±æ€§ã,ã,Šã€,TACã♦«ã♦Šå•♦ã♦„å♦^ã,♦ã♦>ã♦?♦ã♦ ã♦•ã
12.2ZE	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)ä»¥é™♦ã♦«ç§»è;Œ
12.2ZF	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ
12.2ZG	è,,†å¼±æ€§ii/4šSOHO9xã♦Šã♦^-ã€♦12.3(8)YG2ä»¥é™♦ã♦«ç§»è;Œã?
12.2ZH	è,,†å¼±æ€§ã,ã,Šã€,TACã♦«ã♦Šå•♦ã♦„å♦^ã,♦ã♦>ã♦?♦ã♦ ã♦•ã
12.2ZJ	è,,†å¼±æ€§ã,ã,Šã€♦12.3(8)Tä»¥é™♦ã♦«ç§»è;Œ
12.2ZL	è,,†å¼±æ€§ã,ã,Šã€,TACã♦«ã♦Šå•♦ã♦„å♦^ã,♦ã♦>ã♦?♦ã♦ ã♦•ã
12.2ZN	è,,†å¼±æ€§ã,ã,Šã€♦12.3(4)T13ä»¥é™♦ã♦«ç§»è;Œ

12.2ZP	è,,†å¹¼±æ€§ã,ã,Šã€,12.3(8)XYä»¥é™♦ã♦«ç§»è;Œã♦—ã♦ ã♦?♦ã♦
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12.3B	è,,†å¹¼±æ€§ã,ã,Šã€♦ 12.3(8)T7ä»¥é™♦ã♦«ç§»è;Œ
12.3BC	
12.3BW	è,,†å¹¼±æ€§ã,ã,Šã€♦ 12.3(8)Tä»¥é™♦ã♦«ç§»è;Œ
12.3JA	
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12.3JK	12.3(2)JK2
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12.3TPC	12.3(4)TPC11b
12.3XA	12.3(2)XA6
12.3XB	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)Tä»¥é™◆ã◆«ç§»è;Œ
12.3XC	è,,†å¼±æ€§ã,ã,Šã€,TACã◆«ã◆Šå•◆ã◆„å◆^ã,◆ã◆>ã◆?ã◆ã◆ã◆ a◆•ã
12.3XD	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)T7ä»¥é™◆ã◆«ç§»è;Œ
12.3XE	è,,†å¼±æ€§ã,ã,Šã€,TACã◆«ã◆Šå•◆ã◆„å◆^ã,◆ã◆>ã◆?ã◆ã◆ã◆ a◆•ã
12.3XF	è,,†å¼±æ€§ã,ã,Šã€◆12.3(11)Tä»¥é™◆ã◆«ç§»è;Œ
12.3XG	è,,†å¼±æ€§ã,ã,Šã€,TACã◆«ã◆Šå•◆ã◆„å◆^ã,◆ã◆>ã◆?ã◆ã◆ã◆ a◆•ã
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12.3XI	12.3(7)XI8
12.3XJ	è,,†å¼±æ€§ã,ã,Šã€◆12.3(8)XWä»¥é™◆ã◆«ç§»è;Œ
12.3XK	è,,†å¼±æ€§ã,ã,Šã€◆12.3(14)Tä»¥é™◆ã◆«ç§»è;Œ
12.3XQ	è,,†å¼±æ€§ã,ã,Šã€◆12.4(1)ä»¥é™◆ã◆«ç§»è;Œ
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12.3YS	ã◆™ã◆¹ã◆!ã◆®12.3YSãƒªãƒªãƒ¼ã,¹ã◆Œä¿®æ£ã◆•ã,Œã◆!ã◆,,ã◆

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Cisco IOS XR ã¢®ãƒ¢ãƒ½ã,ãƒ§ãƒ³	SMU ID	ãƒ‘ãƒfã,±ãƒ½ã,ã¢®ã,¤ãƒ³ã,¹ãƒ^ãƒ½ãƒ«ç”“å°¢ç’
3.2.2 CRS-1ã¢®å`å¢^	AA01482	hfr-base-3.2.2.CSCeh52410.pie
3.2.3 CRS-1ã¢®å`å¢^	AA01483	hfr-base-3.2.3.CSCeh52410.pie
3.2.4 CRS-1ã¢®å`å¢^	AA01484	hfr-base-3.2.4.CSCeh52410.pie
3.2.6 CRS-1ç”“	AA01727	hfr-base-3.2.6.CSCeh52410.pie
CRS- 1ã¢Šã,^ã¢³XR12000å¢'ã¢'3.3.x	è§£æ±ºæ,^ã¢¿	
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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。