

# Cisco IOS <sup>3</sup> Cisco IOS XE DHCP

## 4

### «<sup>3</sup> 'ā, <ā, μāf¼āf"ā, 1ā | "ā<sup>3</sup>i¼



ā, çāf%āf ā, mā, ¶āfāf¼ID : cisco-sa-  
20180328-dhcpr3  
ā^ ā...-é- <æ- ¥ : 2018-03-28 16:00  
æœ€gæ>æ-°æ-¥ : 2022-12-15 22:19  
āf āf¼ā, āfšāf<sup>3</sup> 1.1 : Final  
CVSSā, 1ā, 3ā, ç : 8.6  
ā>žé ç- : No workarounds available  
Cisco āf ā, ° ID : [CSCuh91645](#)

[CVE-2018-0174](#)

æ-¥æœ-è<sup>a</sup>žā «ā, ^ā, <æf...ā ±ā -ā€ è<±è<sup>a</sup>žā «ā, ^ā, <āŽYæ-†ā ®é žā...-ā¼ ā

æi, èi

Cisco IOS ā, ½āf•āf^ā, |ā, šā, çā Šā, ^ā<sup>3</sup> Cisco IOS XE ā, ½āf•āf^ā, |ā, šā, çā «ā Šā 'ā, < DHCP  
Option 82

ā ®ā, «āf—ā, »āf«āŒ-æ©Yèf½ā ®è,, t¼±æ€šā «ā, ^ā, Šā€ è<sup>a</sup> è "¼ā •ā, Œā | ā,, ā<sup>a</sup> ā,, āfāš  
ā "ā ®è,, t¼±æ€šā -ā€ è<sup>2</sup>ā½"ā, ½āf•āf^ā, |ā, šā, çā ŒDHCPāfāf-āf¼ā, "āf¼ā, ā, šāf<sup>3</sup>āf^ā <ā, 9  
DHCPv4  
āf^ā, ±āffāf^ā, è<sup>2</sup>ā½"āf†āf ā, mā, 1ā «é€ äžjā™ā, <ā "ā "ā «ā, ^ā £ā | ā€ æœ-è,, t¼±æ€šā  
DoS çš¶æ...ā Œç™°ç"Yā™ā, <ā -èf½æ€šā Œā, ā, Šā¾ā™ā€,

ā, .ā, 1ā, 3ā -ā "ā ®è,, t¼±æ€šā «ā¾ā† | ā™ā, <ā, ½āf•āf^ā, |ā, šā, çā, çāffāf—āf†āf¼āf^ā, 'āfāfāf¼

ā "ā ®ā, çāf%āf ā, mā, ¶āfāf -ā€ æ-|ā ®āfāf<sup>3</sup>ā, -ā, ^ā, Šçç<sup>o</sup>è<sup>a</sup> ā šā ā¾ā™ā€,  
<https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20180328-dhcpr3>

ā "ā ®ā, çāf%āf ā, mā, ¶āfāf -ā€ 2018ā'3æœ^28æ-¥ā «ā...-é-ā •ā, Œā YCisco  
IOSā Šā, ^ā<sup>3</sup>IOS

XEā, ½āf•āf^ā, |ā, šā, çā ®ā, »ā, āf¥āfāf†ā, £ā, çāf%āf ā, mā, ¶āfāf āfšāf%āf«ā ®ā, €éf"ā šā™ā  
[Event Response: March 2018 Semiannual Cisco IOS and IOS XE Software Security Advisory Bundled Publication](#)ā€ā, 'ā, ç...šā —ā | ā ā ā •ā,, ā€,

# è©²â¹/²“è£¹/²â”❖

è,,†â¼±æ€§ã❖®ã❖,ã,«è£¹/²â”❖

ã❖“ã❖®è,,†â¼±æ€§ã❖™ã❖™ã❖¹ã❖|ã❖®æ❖|ä»¶ã,‘æ°€ã❖ÿã❖™ã,ã,¹ã,³è£¹/²ãf†ãf

- ãf†ãf❖ã,ã,¹ã❖§è,,†â¼±æ€§ã❖CEã™ã,« Cisco IOS ã,½ãf•ãf^ã,|ã,§ã,çãfãfãf¼ã,¹ã❖¾ã❖ÿã❖™ Cisco IOS XE ã,½ãf•ãf^ã,|ã,§ã,çãfãfãf¼ã,¹ã,‘ã®ÿè;CEã❖—ã❖|ã❖,,ã,ã€è,,†â¼±æ€§ã❖CEã™ã,« Cisco IOS ã,½ãf•ãf^ã,|ã,§ã,çã❖§ã,^ã❖³ IOS XE ã,½ãf•ãf^ã,|ã,§ã,çã❖®ãfãfãf¼ã,¹ã❖«ã❖ã❖,,ã❖|ã❖™ã❖™ã❖“ã❖®ã,çãf%ããf❖ã,ã,¶ã,¶ãfãfãf¼ã,¹ã❖®ã,ããf³ã,çãf¼ãf•ã,§ã,ã,¹ã❖CEã€DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^ã❖”ã❖—ã❖|è”ã®§ã❖•ã,CEã❖|ã❖,,ã,ã€,
- ãf†ãf❖ã,ã,¹ã❖¾ã❖ÿã❖™ãf†ãf❖ã,ã,¹ã❖®ã,ããf³ã,çãf¼ãf•ã,§ã,ã,¹ã❖§ã€DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^ãf...ã ±¼Option 82 æf...ã ±¼ã,‘ DHCP ãfã,±ãfãfãf^ã❖«æCEçã...ÿã❖™ã,ã,^ã❖tã❖«è”ã®§ã❖•ã,CEã❖|ã❖,,ã,ã€,
- ãf†ãf❖ã,ã,¹ã❖¾ã❖ÿã❖™ãf†ãf❖ã,ã,¹ã❖®ã,ããf³ã,çãf¼ãf•ã,§ã,ã,¹ã❖§ã€ã»ã❖® DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^ã❖ã,ã,ã❖—ã❖|ã❖—ã❖£ã❖ÿ Option 82 æf...ã ±ã,‘ã,«ãf—ã,»ãf«ãCE-ã❖™ã,ã,^ã❖tã❖«è”ã®§ã❖•ã,CEã❖|ã❖,,ã,ã€,

## DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^è”ã®§ã❖®çç°èª❖

ãf†ãf❖ã,ã,¹ã❖®ã,ããf³ã,çãf¼ãf•ã,§ã,ã,¹ã❖CE DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^ã❖”ã❖—ã❖|è”ã®§ã❖•ã,CEã❖|ã❖,,ã,ã€ã❖ã❖©ã❖tã❖ã,‘çç°èª❖ã❖™ã,ã❖«ã

CLI ã❖§ show running-config | include ip helper-address

ã,³ãfžãf³ãf%ã,‘ã¼ç”ã❖—ã❖¾ã❖™ã€, | include ip helper-addressã,³ãfžãf³ãf%ã,‘CLIã❖§ã®ÿè;CEã❖—ã❖¾ã❖™ã€,ãf†ãf❖ã,ã,¹ã❖CE Cisco cBR-8 ã,³ãf³ãfãf¼ã,ãf%ã fãf-ãfãf¼ãf%ããf³ãf%ã fãf«ãf¼ã,çã❖§ã❖,ã,ã ‘ã^ã™ã€CLI ã❖§ã»£ã,ã,§ã« show running-config | include cable helper-address ã,³ãfžãf³ãf%ã,‘ã¼ç”ã❖—ã❖¾ã❖™ã€, | include cable helper-addressã,³ãfžãf³ãf%ã,‘CLIã❖§ã®ÿè;CEã❖—ã❖¾ã❖™ã€,

ã,³ãfžãf³ãf%ã«ã,^ã,§ã†°ã§ã❖CEè”ã❖•ã,CEã,ã ‘ã^ã™ã€ãf†ãf❖ã,ã,¹ã❖® 1 ã❖ã»ÿã,§ã®ã,ããf³ã,çãf¼ãf•ã,§ã,ã,¹ã❖CE DHCP ãfãf-ãf¼ã,“ãf¼ã,ã,§ãf³ãf^ã❖”ã❖—ã❖|è”ã®§ã❖•ã,CEã❖|ã❖,,ã❖¾ã❖™ã€,

ã»ÿã,ã❖«ã€show running-config | include ip helper-addressã,³ãfžãf³ãf%ã,‘ã€Cisco IOSã,½ãf•ãf^ã,|ã,§ã,çã,‘ã®ÿè;CEã❖—ã❖|ã❖,,ã,ãf†ãf❖ã,ã,¹ã❖«ã¾ã❖—ã❖|ã®ÿè;CEã❖—ã❖¾ã❖™ã€,

Router#

```
show running-config | include ip helper-address
```

```
ip helper-address 10.10.10.1
```

Router#

```
show running-config | include ip helper-address
include cable helper-address
```

```
8af<af14a.¿ãŠâ@ÿè;CEã™ã,ããã€ã½•ã,,ã†°ãŠ>ã€CE¿"ã•ã,CEãšã€ãf†ãfã,ãã,1ã®ã
```

### Option 82 æCE¿ã...¥ã,ãfãf14ãf^ã®çç°èª

```
ãf†ãfã,ãã,1ã¾ãÿããf†ãfã,ãã,1ã®ã,ããf³ã,¿ãf14ãf•ã,šã,ãã,1ã€ Option 82
```

```
æf...ã ±ã, DHCP
```

```
ãfã,±ãffãf^ã«æCE¿ã...¥ã™ã,ãã,^ãtã«è°ã®šã•ã,CEã|ã,,ã,ãã©ãtãã,¿çç°èªã
```

```
CLI ã§ show running-config | include ip dhcp relay information
```

```
optionã,ãfžãf³ãf%ãã,CLIãŠã½¿ç"ã—ã¾ã™ã€,
```

```
ã,ãfžãf³ãf%ãã†°ãŠ>ã«ã»¥ã,ãã®ã,,ãšã,CEããã€ã¾ã,CEã|ã,,ã,ã'ã^ã€ãf†ãfã
```

```
Option 82 æf...ã ±ã, DHCP
```

```
ãfã,±ãffãf^ã«æCE¿ã...¥ã™ã,ãã,^ãtã«è°ã®šã•ã,CEã|ã,,ã¾ã™ã€,
```

- ip dhcp relay information option-inserti¼šã,ããf³ã,¿ãf14ãf•ã,šã,ãã,1è°ã®šã€ DHCP

```
ãf³ãf-ãf¼
```

```
ã,,ãf¼ã,,ã,šãf³ãf^ããã—ã|è°ã®šã•ã,CEã|ã,,ã,ã,ããf³ã,¿ãf14ãf•ã,šã,ãã,1ã®
```

- ip dhcp relay information option server-id-

```
overridei¼šã,ããf³ã,¿ãf14ãf•ã,šã,ãã,1è°ã®šã€ DHCP ãf³ãf-ãf¼
```

```
ã,,ãf¼ã,,ã,šãf³ãf^ããã—ã|è°ã®šã•ã,CEã|ã,,ã,ã,ããf³ã,¿ãf14ãf•ã,šã,ãã,1ã®
```

- ip dhcp relay information optioni¼šã,°ãfãf14ãfãf«

```
ã,ããf³ãf•ã,£ã,®ãf¥ãf-ãf¼ã,.ãfšãf³
```

```
ã»¥ã,ãã«ã€ show running-config | include ip dhcp relay information
```

```
optionã,ãfžãf³ãf%ãã,ã®ÿè;CEã—ã¾ã™ã€,ãã"ã®ã,ãfžãf³ãf%ããã€Cisco
```

```
IOSã,½ãf•ãf^ã,|ã,šã,çã€CEç¼ãfãã—ã|ã,,ã|ã€DHCPãf³ãf-ãf¼ã,,ãf¼ã,,ã,šãf³ãf^ãã
```

<#root>

Router#

```
show running-config | include ip dhcp relay information option
```

```
ip dhcp relay information option-insert
```

Router#

show running-config | include ip dhcp relay information

option 82, encapsulate ip dhcp relay information

### Option 82

ip dhcp relay information option 82

DHCP relay information option 82

encapsulate ip dhcp relay information

CLI show running-config | include ip dhcp relay information policy.\*

encapsulate ip dhcp relay information

ip dhcp relay information option 82

Option 82

encapsulate ip dhcp relay information

- ip dhcp relay information policy-action

encapsulate ip dhcp relay information

ip dhcp relay information option 82

- ip dhcp relay information policy encapsulate

ip dhcp relay information

Cisco IOS

ip dhcp relay information option 82

DHCP relay information option 82

Option 82

encapsulate ip dhcp relay information

<#root>

Router#

show running-config | include ip dhcp relay information policy.\* encapsulate

ip dhcp relay information policy encapsulate

Router#

show running-config | include ip dhcp relay information policy.\*

encapsulate ip dhcp relay information

## Cisco IOS 15.5(2)T1

```
Router# show version
Cisco IOS Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team

Cisco IOS 15.5(2)T1
Cisco IOS Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team
```

```
Router# show version
```

```
Cisco IOS Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team
```

```
<#root>
```

```
Router>
```

```
show version
```

```
Cisco IOS Software, C2951 Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team
```

```
Cisco IOS 15.5(2)T1
```

```
Cisco IOS Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team
```

## Cisco IOS XE 15.5(2)T1

```
Router# show version
Cisco IOS XE Software (C2951-UNIVERSALK9-M), Version 15.5(2)T1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Mon 22-Jun-15 09:32 by prod_rel_team
```

afŠaf¼ã, 'ã, ç...Sã™ã, <ã "ã "ã «ã, ^ã, Šçç°èªãšããã¼ã™ã€ã,ãf†ãfã,ã,ã,¹ã  
Cisco IOS XE ã,½ãf•ãf^ã, |ã,šã,çã, 'ã®Ïè;Cã—ã |ã,,ã, <ã 'ã^ã€ã,ã,¹ãftãf  
ãfŠaf¼ã «ã€C Cisco IOS Softwareã€ã€ã€C Cisco IOS XE  
Softwareã€ã€ãªã©ã®ãftã,ã,¹ãf^ã€Cè; "çªã•ã, Cã¼ã™ã€,

æ¬;ã «ã€Cisco IOS XR ã,½ãf•ãf^ã, |ã,šã,çããfªãf¼ã,¹ 16.2.1  
ã€Cã®Ïè;Cã•ã, Cã |ã,,ã |ã€ã,ããf³ã,¹ãf^ã¼ãf«ã•ã, Cã |ã,,ã,ã,ããf;ãf¼ã,ããã  
CAT3K\_CAA-UNIVERSALK9-M  
ãšã,ã,ãf†ãfã,ã,ã,¹ãšã®ã,³ãfžãf³ãf%ã®ãª°ãŠ>ã¼ã, 'çªã—ã¼ã™ã€,

<#root>

ios-xe-device#

show version

Cisco IOS Software, Catalyst L3 Switch Software (CAT3K\_CAA-UNIVERSALK9-M), Version Denali 16.2.1, REL  
Technical Support: <http://www.cisco.com/techsupport>  
Copyright (c) 1986-2016 by Cisco Systems, Inc.  
Compiled Sun 27-Mar-16 21:47 by mcpre  
.  
.  
.

Cisco IOS XE ã,½ãf•ãf^ã, |ã,šã,çã  
ãfªãf¼ã,¹ã®ã'½ãã "çªãªã~ãã'ã®è |ãª%ãªã «é-çã™ã, <èç³°ãã€ãŽCisco  
[IOS and NX-OS Software Reference Guide](#)ã€ã,ã,ç...Sã—ã |ãããããããã,ã€,

è,†ã¼±æ€šã, 'ã «ã, "ãšã,,ãªã,,ã "ã "ã Cçç°èªã•ã, CãÏè£½ã"ã

ã—ã®ã,ã,¹ã,³è£½ã"ã «ãŠã,,ã |ã€ãã "ã®ã,çãf%ããfã,ã,ã,¶ãfãã®ã½±éÏ;ã,ã—ã

ã,ã,ã,ãããããã®ã,†ã¼±æ€šã€C Cisco IOS XR ã,½ãf•ãf^ã, |ã,šã,çã¼ãÏã  
Cisco NX-OS

ã,½ãf•ãf^ã, |ã,šã,çã «ãª½±éÏ;ã,ã,žã^ãªã,,ã "ã "ã, 'çç°èªã—ã¼ã—ãÏã€,

èç³°

æœè-,†ã¼±æ€šã, 'ãæfã^ç"ã™ã,ã «ãããæœã,çãf%ããfã,ã,ã,¶ãfãã®ã€Cè,†ã¼±æ€šã

ãžéç-

ããã®è,,†ã¼±æ€šã «ã¼ãª |ã™ã,ãžéç-ããã,ã,šã¼ããã,ã€,







## 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。