

為SaaS配置SD-WAN雲OnRamp

目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[背景資訊](#)

[設定](#)

[網路圖表](#)

[組態](#)

[在傳輸介面上啟用NAT](#)

[建立集中式AAR策略](#)

[在vManage中啟用應用和直接網際網路訪問](#)

[驗證](#)

[相關資訊](#)

簡介

本文檔介紹使用分支機構本地退出的Cloud OnRamp for Software as a Service (SaaS)配置。

必要條件

需求

思科建議您瞭解思科軟體定義廣域網(SD-WAN)。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- 思科vManage版本20.9.4
- Cisco WAN Edge路由器版本17.9.3a

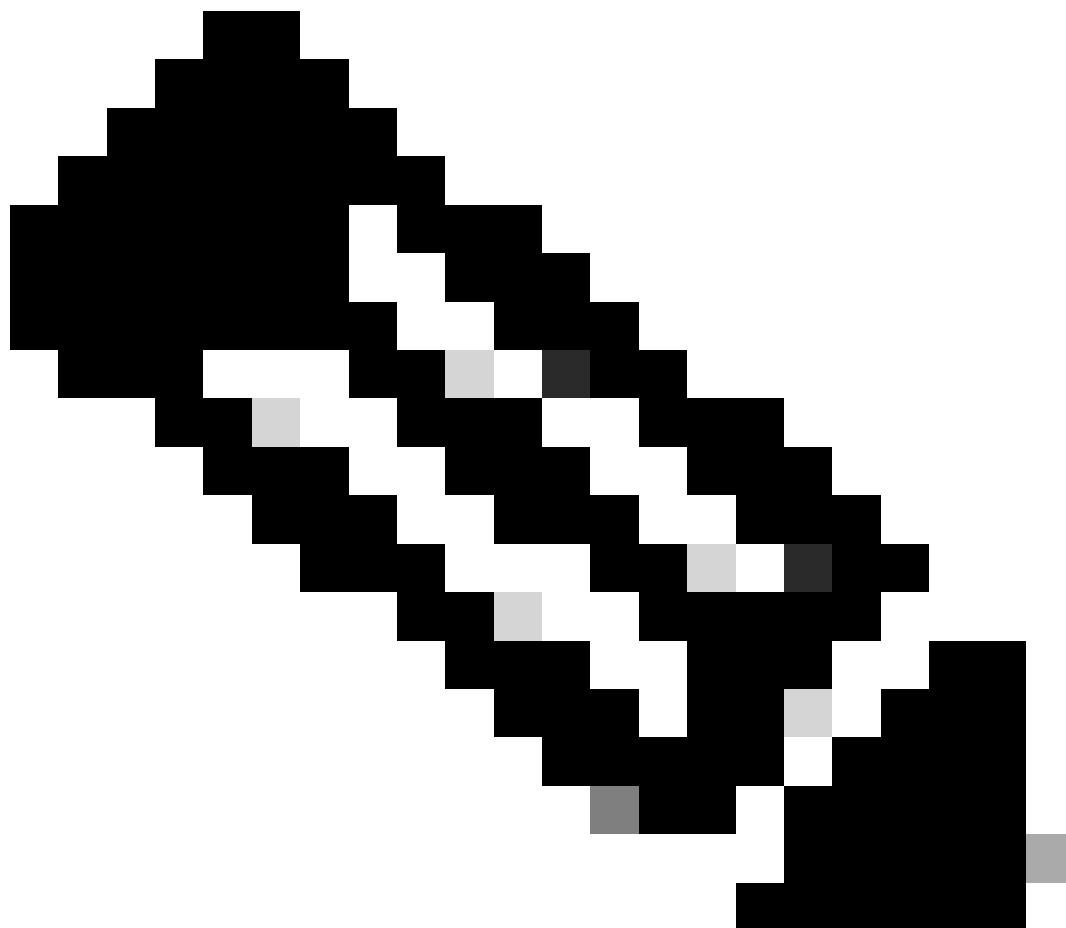
本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

背景資訊

對於使用SD-WAN的組織，預設情況下，分支站點通常會透過SD-WAN重疊鏈路將SaaS應用流量路由到資料中心。從資料中心，SaaS流量到達SaaS伺服器。

例如，在擁有中央資料中心和分支機構站點的大型組織中，員工可以在分支機構站點使用Office 365。預設情況下，分支站點的Office 365流量透過SD-WAN重疊鏈路路由到中央資料中心，然後從DIA出口路由到Office 365雲伺服器。

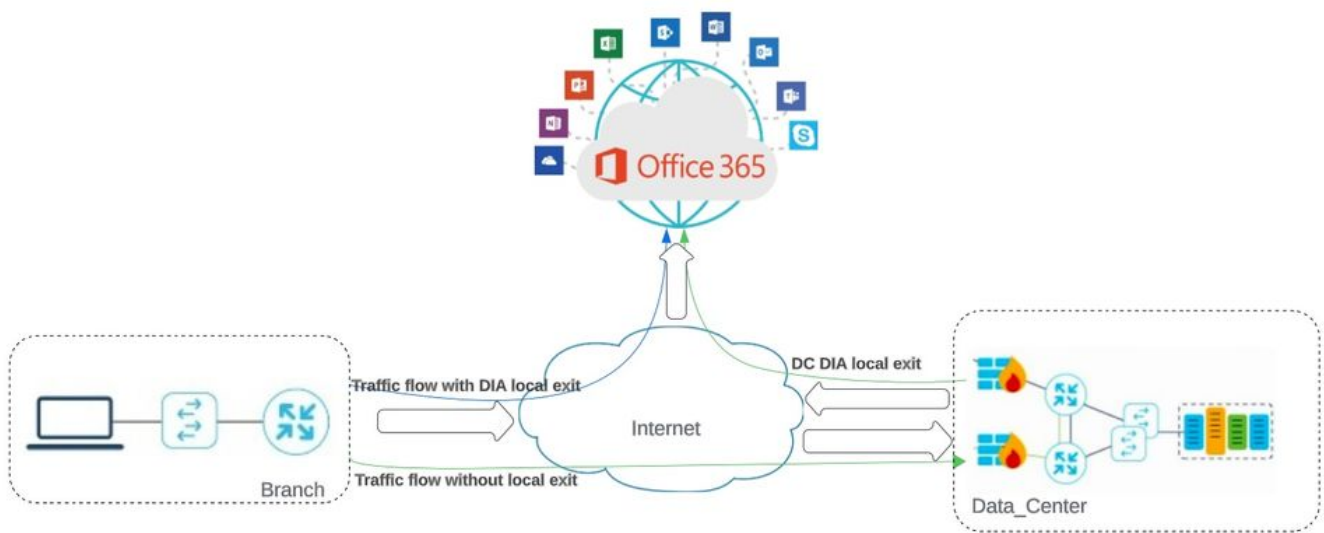
本文檔介紹此場景：如果分支機構站點具有直接網際網路接入(DIA)連線，您可以透過繞過資料中心將本地DIA路由SaaS流量來提高效能。



注意：不支援在站點使用環回作為傳輸定位器(TLOC)介面時為SaaS配置雲OnRamp。

設定

網路圖表



網路拓撲

組態

在傳輸介面上啟用NAT

導航到Feature Template。選擇模Transport VPN interface 板並啟用NAT。

Cisco SD-WAN Configuration · Templates

Select Resource Group

Configuration Groups Feature Profiles Device Templates **Feature Templates**

Feature Template > Cisco VPN Interface Ethernet > cEdge_Basic_Transport1_NAT

NAT

IPv4 IPv6

NAT On Off

NAT Type Interface Pool Loopback

UDP Timeout 1

TCP Timeout 60

STATIC NAT PORT FORWARD

啟用介面NAT

等效的CLI配置：

```
interface GigabitEthernet2
ip nat outside
```

```
ip nat inside source list nat-dia-vpn-hop-access-list interface GigabitEthernet2 overload
ip nat translation tcp-timeout 3600
ip nat translation udp-timeout 60
```

建立集中式AAR策略

要建立集中策略，必須遵循以下步驟：

步驟 1. 建立網站清單：

Centralized Policy > Define Lists

Select a list type on the left and start creating your groups of interest

- Application
- Color
- Community
- Data Prefix
- Policer
- Prefix
- Site

New Site List					
Name	Entries	Reference Count	Updated By	Last Updated	Action
DCsite_100001	100001	3	admin	11 Sep 2023 12:46:54 PM P...	

VPN介面NAT模板

步驟 2. 建立VPN清單：

Centralized Policy > Define Lists

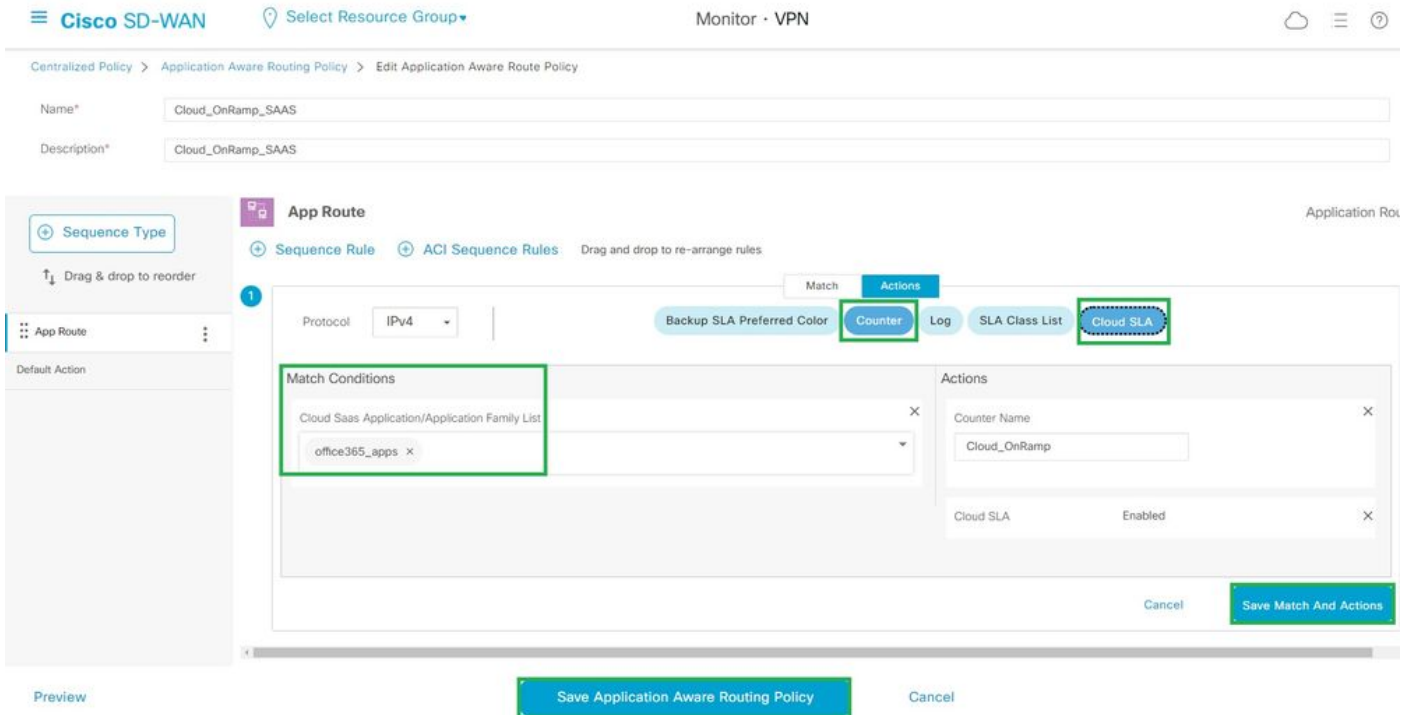
Select a list type on the left and start creating your groups of interest

- Application
- Color
- Community
- Data Prefix
- Policer
- Prefix
- Site

New Site List					
Name	Entries	Reference Count	Updated By	Last Updated	Action
DCsite_100001	100001	3	admin	11 Sep 2023 12:46:54 PM P...	

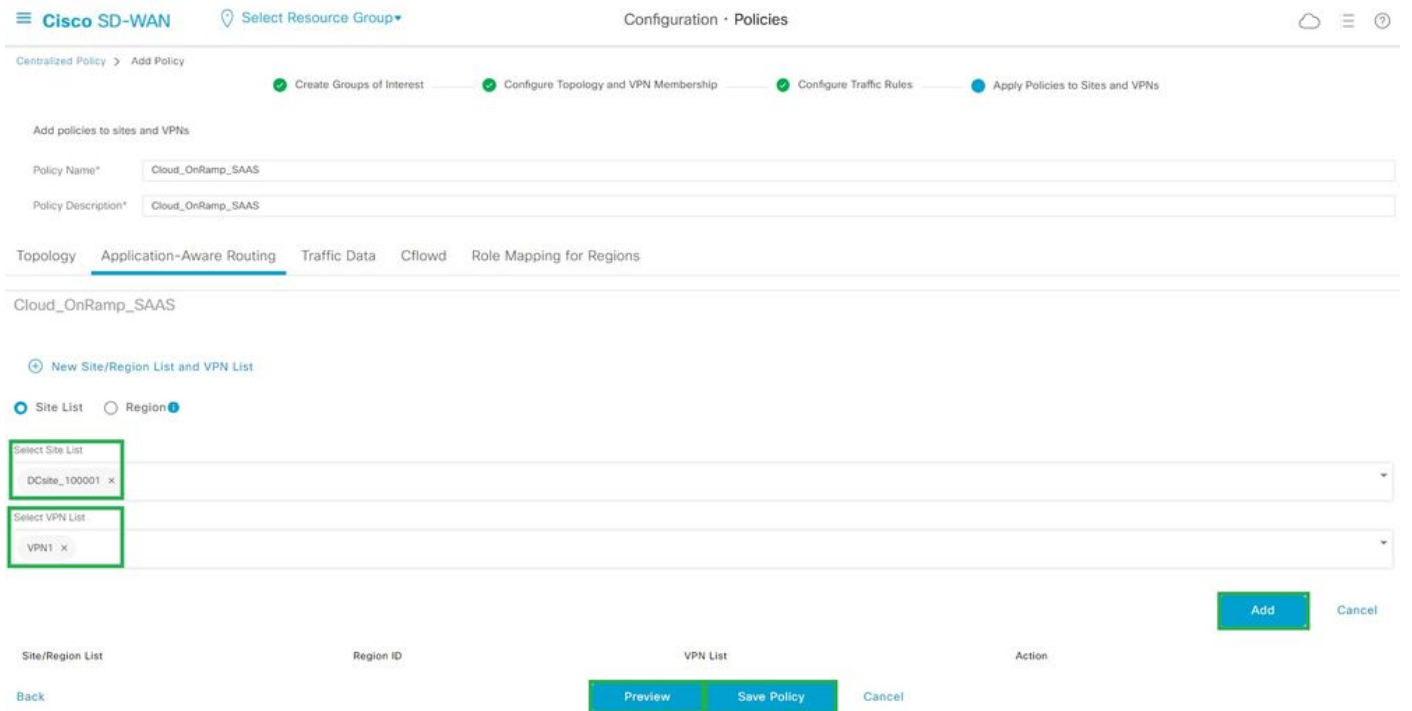
集中策略自定義站點清單

步驟 3. 配置Traffic Rules 並建立Application Aware Routing Policy。



應用感知路由策略

步驟 4.將策略增加到目標Sites中，VPN：



將策略增加到站點和VPN

CLI等效策略：

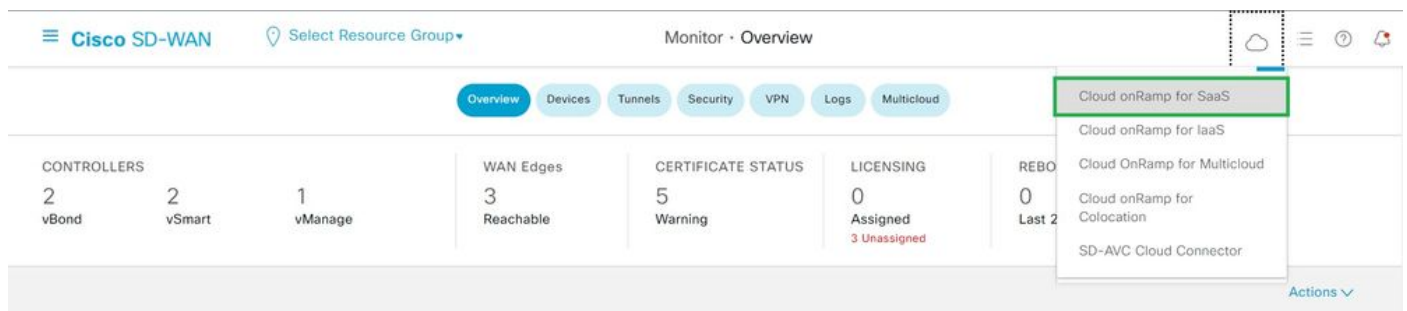
```
viptela-policy:policy
app-route-policy_VPN1_Cloud_OnRamp_SAAS
vpn-list VPN1
```

sequence 1
match
cloud-saas-app-list office365_apps
source-ip 0.0.0.0/0
!
action
count Cloud_OnRamp_-92622761
!
!
!
lists
app-list office365_apps
app skype
app ms_communicator
app windows_marketplace
app livemail_mobile
app word_online
app excel_online
app onedrive
app yammer
app sharepoint
app ms-office-365
app hockeyapp
app live_hotmail
app live_storage
app outlook-web-service
app skydrive
app ms_teams
app skydrive_login
app sharepoint_admin
app ms-office-web-apps
app ms-teams-audio
app share-point
app powerpoint_online
app ms-lync-video
app live_mesh
app ms-lync-control
app groove
app ms-live-accounts
app office_docs
app owa
app ms_sway
app ms-lync-audio
app live_groups
app office365
app windowslive
app ms-lync
app ms-services
app ms_translator
app microsoft
app sharepoint_blog
app ms_onenote
app ms-teams-video
app ms-update
app ms-teams-media
app ms_planner
app lync
app outlook
app sharepoint_online

```
app lync_online
app sharepoint_calendar
app ms_teams
app sharepoint_document
!
site-list DCsite_100001
site-id 100001
!
vpn-list VPN1
vpn 1
!
!
!
apply-policy
site-list DCsite_100001
app-route-policy _VPN1_Cloud_OnRamp_SAAS
!
!
```

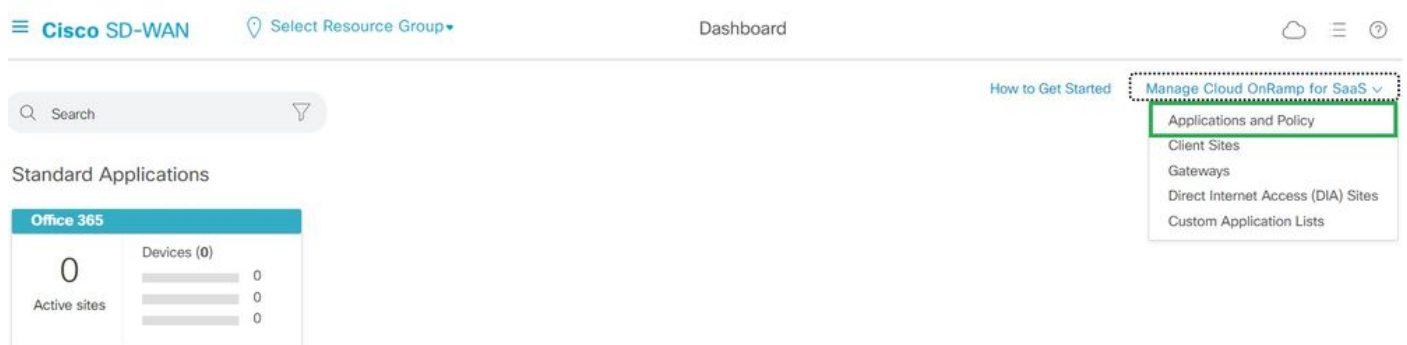
在vManage中啟用應用和直接網際網路訪問

步驟 1. 導航到Cloud OnRamp for SaaS。



選擇SaaS的雲onRamp

步驟 2. 導航到Applications and Policy。



選擇應用程式和策略

步驟 3. 導航到Application > Enable和 Save。然後按一下Next。

Cisco SD-WAN Select Resource Group Dashboard

Cloud onRamp for SaaS > Applications and Policy

App Type: All Standard Custom

Search

Please click on the table cells Monitoring and Policy/Cloud SLA to enable/disable them for the Cloud Applications.

Total Rows: 14

Applications	Monitoring	VPN (for Viptela OS Device Models)	Policy/Cloud SLA (for Cisco OS Device Models)
Office 365 (Opted Out) Enable Application Feedback for Path ...	Enabled	-	Disabled
Oracle	Enabled	-	Disabled
Salesforce	Disabled	-	Disabled
Sugar CRM	Disabled	-	Disabled

選取應用程式並啟用監督

步驟 4. 導航到 Direct Internet Access (DIA) Sites。

Cisco SD-WAN Select Resource Group Dashboard

Search

Standard Applications

Office 365

0 Active sites

Devices (0)

0

0

0

How to Get Started

- Manage Cloud OnRamp for SaaS
- Applications and Policy
- Client Sites
- Gateways
- Direct Internet Access (DIA) Sites
- Custom Application Lists

選擇直接網際網路接入站點

步驟 5. 切換作業選項至 Attach DIA Sites 並選擇「地點」。

The screenshot shows the Cisco SD-WAN CloudExpress interface for managing Cloud OnRamp for SaaS. At the top, there is a navigation bar with the Cisco SD-WAN logo, a 'Select Resource Group' dropdown, and a 'Dashboard' link. Below the navigation bar, there is a search bar and a 'Manage Cloud OnRamp for SaaS' button. The main content area displays a table with one row. The table has two columns: 'Site Id' and 'Status'. The 'Site Id' column contains the value '100001' and the 'Status' column contains a green checkmark. Above the table, there are buttons for 'Attach DIA Sites', 'Detach DIA Sites', and 'Edit DIA Sites'. The 'Attach DIA Sites' button is highlighted with a green box. Below the table, there is a status bar with icons for 'Devices in sync', 'Sync pending', and 'One or more devices out of sync'.

附加DIA站點

驗證

本節介紹驗證SaaS雲OnRamp的結果。

- 此輸出顯示Cloudexpress local-exit :

```
cEdge_West-01#sh sdwan cloudexpress local-exits
cloudexpress local-exits vpn 1 app 2 type app-group subapp 0 GigabitEthernet2
application office365
latency 6
loss 0
```

- 此輸出顯示Cloudexpress應用程式 :

```
cEdge_West-01#sh sdwan cloudexpress applications
cloudexpress applications vpn 1 app 2 type app-group subapp 0
application office365
exit-type local
interface GigabitEthernet2
latency 6
loss 0
```

- 此輸出顯示相關流量的遞增計數器：

<#root>

```
cEdge_West-01#sh sdwan policy app-route-policy-filter
```

NAME	NAME	COUNTER NAME	PACKETS	BYTES
-----	-----	-----	-----	-----
_VPN1_Cloud_OnRamp_SAAS	VPN1	default_action_count	640	66303
Cloud_OnRamp_-403085179		600	432292	

- 此輸出顯示vQoE狀態和分數：

The screenshot shows the Cisco SD-WAN Dashboard for 'Office 365'. A table displays the vQoE status and score for the site 'cEdge_West-01'. The vQoE Status is 'Good' (indicated by a green circle) and the vQoE Score is '10.0' (indicated by a green checkmark).

Sites List	Hostname	vQoE Status	vQoE Score	DIA Status	Selected Interface	Activated Gateway	Local Color	Remote Color	Application Usage
100001	cEdge_West-01	Good	10.0	local	GigabitEthernet2	N/A	N/A	N/A	View Usage

vQoE狀態和分數

- 此輸出顯示來自vManage GUI的服務路徑：

Output: Total next hops: 1 | Remote : 1

```
graph LR; S(( )) --> R((1.1.1.101)); R --> T[Remote Remote IP 10.2.30.129 Interface GigabitEthernet2];
```

服務路徑

- 此輸出顯示來自裝置CLI的service-path：

```
cEdge_West-01#sh sdwan policy service-path vpn 1 interface GigabitEthernet4 source-ip 10.2.20.70 dest-i  
Next Hop: Remote  
Remote IP: 10.2.30.129, Interface GigabitEthernet2 Index: 8
```

相關資訊

- [Cisco Catalyst SD-WAN雲OnRamp配置指南](#)
- [思科技術支援與下載](#)

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。