

# 在CatOS交換機和外部路由器之間配置ISL和802.1q中繼 ( InterVLAN路由 )

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## 簡介

本文提供執行CatOS的Catalyst 6500/6000交換器與可執行InterVLAN路由的Cisco 7500路由器之間的InterSwitch連結(ISL)和802.1q主幹設定範例。每個命令的結果在執行時顯示。雖然此組態中使用的是Catalyst 6500交換器，但可以用執行CatOS且設定步驟沒有變更的Catalyst 4500/4000或5500/5000系列交換器取代。

## 開始之前

### 背景理論

#### 中繼

中繼是一種通過點對點第2層(L2)鏈路傳輸來自多個VLAN的流量的方式。乙太網中繼中使用的兩種封裝是：

- ISL ( 思科專有中繼封裝 )
- 802.1q ( IEEE標準中繼封裝 )

有關ISL或802.1q中繼的更多資訊和配置示例，請參閱以下文檔：

- [LAN交換器產品支援](#)

#### InterVLAN路由

為了讓不同VLAN中的裝置相互通訊，需要路由器在VLAN之間進行路由。為此目的可以使用內部路

由器，例如Catalyst 6500/6000上的多層交換器功能卡(MSFC)。Catalyst 5500/5000上的路由交換模組(RSM)是另一個範例。如果交換機Supervisor引擎僅支援L2，或者交換機中沒有第3層(L3)模組，則需要Cisco 7500等外部路由器在VLAN之間進行路由。

## 重要附註

- 請記住，運行CatOS的Catalyst 4500/4000系列交換機不支援ISL中繼。確保發出[show port capabilities <mod>](#)命令，以確定特定模組在Catalyst 5500/5000上支援哪些中繼封裝。Catalyst 6500/6000中的所有模組都支援ISL和802.1q中繼。
- 確保使用指南，以便根據交換機的軟體文檔配置中繼。例如，如果您在Catalyst 5500/5000上執行軟體版本5.5.x，請參閱[軟體組態設定指南\(5.5\)](#)，並仔細檢查任何組態原則及限制。

## 慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

## 必要條件

嘗試此組態之前，請確認已滿足以下必要條件：

- Catalyst 6500/6000系列交換器：所有軟體和硬體都支援ISL和802.1q中繼
- Cisco 7000或7500系列路由器：採用7000系列路由交換處理器(RSP7000)的Cisco 7000系列路由器7000系列機箱介面(RSP7000CI)採用FastEthernet介面處理器(FEIP)或多功能介面處理器(VIP2)連線埠配接器的思科7500系列路由器如果使用PA-2FEISL埠介面卡，則必須具有硬體版本1.2或更高版本。有關詳細資訊，請參閱[2埠快速乙太網ISL\(PA-2FEISL\)的更換建議](#)。
- **encapsulation dot1q native**命令是在Cisco IOS®軟體版本12.1(3)T中引入的。此命令更改配置。如需詳細資訊，請參閱本檔案[設定](#)一節中有關[Cisco 7500上低於12.1\(3\)T的Cisco IOS版本的組態輸出範例802.1q組態](#)。
- Cisco [7500系列路](#)由器上預設啟用思科快速轉發。但是，在Cisco IOS 12.2和12.2T版本發佈之前，對IEEE 802.1q VLAN之間IP路由的Cisco快速轉發支援不可用。在早期版本中仍可以配置802.1q封裝，但您首先必須在全域性配置模式下使用**no ip cef**命令禁用Cisco快速轉發。
- 支援ISL中繼需要Cisco IOS版本11.3(1)T（任何plus功能集）或更高版本。支援IEEE 802.1q中繼需要Cisco IOS版本12.0(1)T（任何加功能集）或更高版本。

## 採用元件

本文中的資訊係根據以下軟體和硬體版本：

- 用於此組態的Catalyst 6500執行CatOS版本5.5(14)
- 用於此配置的Cisco 7500系列路由器運行Cisco IOS版本12.2(7b)

## 設定

本節提供用於設定本文件中所述功能的資訊。

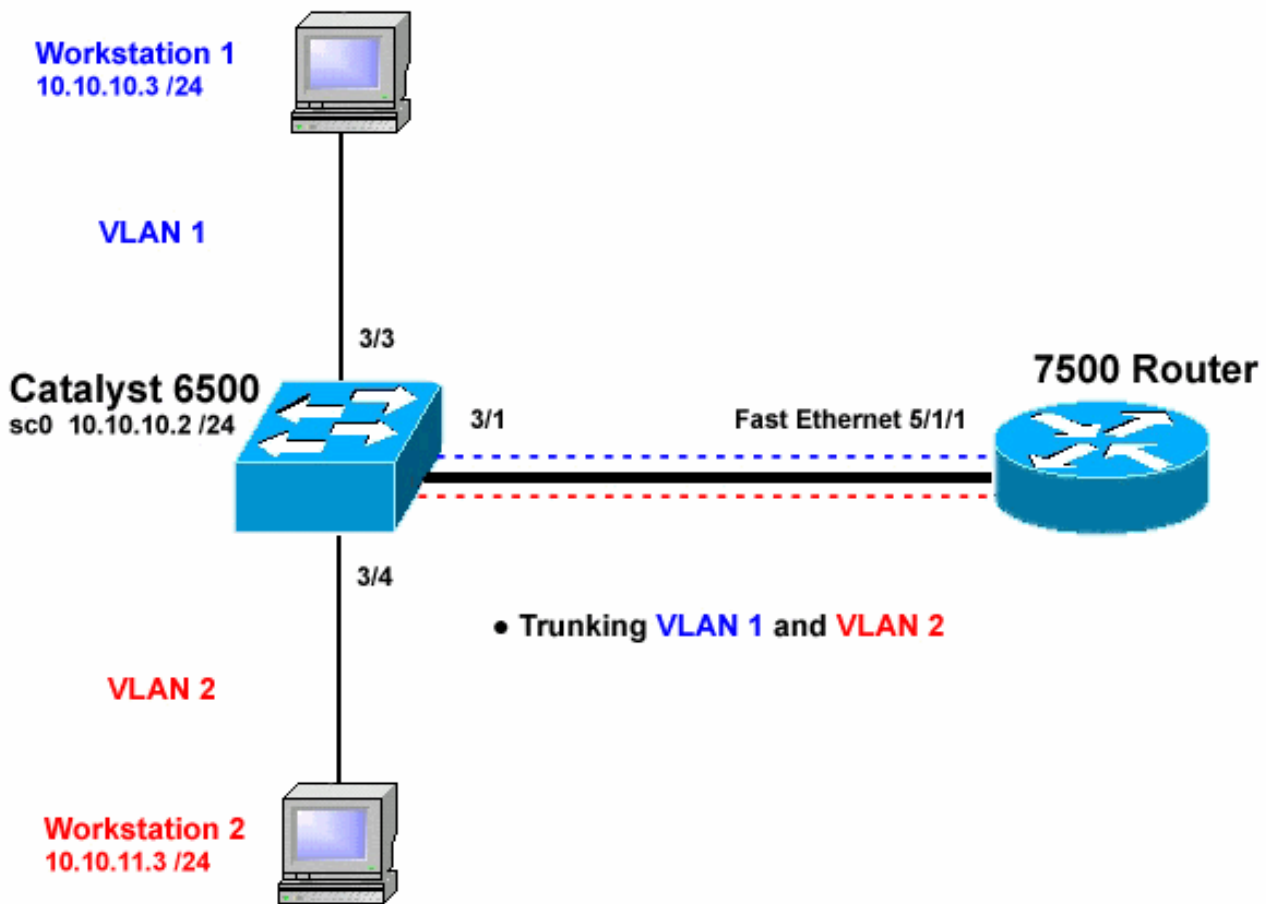
**注意：**若要查詢有關本文檔中使用的命令的其他資訊，請使用[命令查詢工具](#)（僅限註冊客戶）。

在配置部分中，將執行以下任務：

- 在Catalyst 6500上配置兩個接入埠。一個用於VLAN 1中的工作站1，另一個用於VLAN 2中的工作站2。
- 將Cisco 7500上工作站1和工作站2各自的預設網關配置為10.10.10.1 /24和10.10.11.1/24。
- 在Catalyst 6500交換機和Cisco 7500路由器之間配置ISL或802.1q中繼。
- 為InterVLAN路由配置兩個具有IP地址的FastEthernet子介面。

## 網路圖表

本檔案會使用下圖所示的網路設定：



## 組態

本檔案會使用以下設定：

- [Catalyst 6500交換器](#)
- [思科7500路由器](#)
- [在Cisco 7500上為12.1\(3\)T之前的Cisco IOS版本配置802.1q](#)

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。如果您在即時網路中工作，請確保在使用任何命令之前瞭解其潛在影響。

Catalyst 6500交換器

```

!-- Set the sc0 IP address and VLAN. Catalyst6500>
(enable) set int sc0 10.10.10.2 255.255.255.0
Interface sc0 IP address and netmask set.

Catalyst6500 (enable) set int sc0 1

!-- Set the default gateway. Catalyst6500> (enable) set
ip route default 10.10.10.1
Route added.

!-- Set the VLAN Trunk Protocol (VTP) mode. !-- In this
example, the mode is set to transparent. !-- Depending
on your network, set the VTP mode accordingly. !-- For
details on VTP, refer to Understanding and Configuring
!-- VLAN Trunk Protocol \(VTP\). Catalyst6500> (enable)
set vtp mode transparent
VTP domain modified
!-- Add VLAN 2. VLAN 1 already exists by default.
Catalyst6500> (enable) set vlan 2
VLAN 2 configuration successful
!-- Add port 3/4 to VLAN 2. Port 3/3 is already in VLAN
1 by default. Catalyst6500> (enable) set vlan 2 3/4
VLAN 2 modified.
VLAN 1 modified.
VLAN  Mod/Ports
-----
2      3/4

! -- Set the port speed and duplex at 100 and full. One
of !-- the requirements for trunking to work is for
speed and duplex to be the same on !-- both sides. To
guarantee this, hardcode both speed and duplex on port
3/1. !-- You can also make the devices auto-negotiate,
but make sure you correctly !-- do so on both sides.
Catalyst6500> (enable) set port speed 3/1 100
Ports 3/1 transmission speed set to 100Mbps.
Catalyst6500> (enable) set port duplex 3/1 full
Ports 3/1 set to full-duplex.

!-- Enable trunking on port 3/1. !-- Because routers do
not understand Dynamic Trunking Protocol (DTP), !-- the
trunking mode is set to nonegotiate, which causes ports
to trunk !-- but not generate DTP frames. !-- Enter the
trunking encapsulation as either ISL or as 802.1q.
Catalyst6500> (enable) set trunk 3/1 nonegotiate isl
Port(s) 3/1 trunk mode set to nonegotiate.
Port(s) 3/1 trunk type set to isl.
! -- Make sure the native VLAN (default is VLAN 1)
matches across the link. ! -- For more information on
the native VLAN and 802.1q trunking, refer to ! --
Trunking Between Catalyst 4500/4000, 5500/5000, and
6500/6000 Family Switches Using !-- 802.1q
Encapsulation. Catalyst6500> (enable) set trunk 3/1
nonegotiate dot1q
Port(s) 3/1 trunk mode set to nonegotiate.
Port(s) 3/1 trunk type set to dot1q.

Catalyst6500> (enable) show config
This command shows non-default configurations only.
Use 'show config all' to show both default and non-
default configurations.

```

```

.....
.....
..
begin
!
# ***** NON-DEFAULT CONFIGURATION *****
!
!
#time: Thu May 2 2002, 01:26:26
!
#version 5.5(14)
!
!
#system
set system name Catalyst6500
!
#!
#vtp
set vtp mode transparent
set vlan 1 name default type ethernet mtu 1500 said
100001 state active
set vlan 2 name VLAN0002 type ethernet mtu 1500 said
100002 state active
set vlan 1002 name fddi-default type fddi mtu 1500 said
101002 state active
set vlan 1004 name fddinet-default type fddinet mtu 1500
said 101004 state active stp ieee
set vlan 1005 name trnet-default type trbrf mtu 1500
said 101005 state active stp ibm
set vlan 1003 name token-ring-default type trcrf mtu
1500 said 101003 state active
mode srb aremaxhop 7 stemaxhop 7
backupcrf off
!
#ip
set interface sc0 1 10.10.10.2/255.255.255.0
10.10.10.255
set ip route 0.0.0.0/0.0.0.0 10.10.10.1
!
#set boot command
set boot config-register 0x2102
set boot system flash bootflash:cat6000-sup.5-5-14.bin
!
#port channel
!
# default port status is enable
!
!
#module 1 empty
!
#module 2 : 2-port 1000BaseX Supervisor
!
#module 3 : 48-port 10/100BaseTX Ethernet
set vlan 2 3/4
set port disable 3/5
set port speed 3/1 100
set port duplex 3/1 full
set trunk 3/1 nonegotiate isl 1-1005
!-- If IEEE 802.1q is configured, !-- you will see the
following output instead: !-- set trunk 3/1 nonegotiate
dot1q 1-1005 ! #module 4 : 24-port 100BaseFX MM Ethernet
! #module 5 empty ! #module 6 empty ! #module 15 empty !
#module 16 empty end

```

## 思科7500路由器

```
7500#configure terminal
Enter configuration commands, one per line. End with
CNTL/Z.

!-- Configure the FastEthernet interfaces for speed 100
depending on the port adapter. !-- Some FastEthernet
port adapters can auto-negotiate speed (10 or 100) !--
and duplex (half or full). Others are only capable of
100 (half or full). 7500(config)#int fa 5/1/1

!-- Configure full-duplex to match the duplex setting on
the Catalyst switch side. 7500(config-if)#full-duplex
7500(config-if)#speed 100

7500(config-if)#no shut
7500(config-if)#

01:46:09: %LINK-3-UPDOWN: Interface FastEthernet5/1/1,
changed state to up
01:46:10: %LINEPROTO-5-UPDOWN: Line protocol on
Interface FastEthernet5/1/1,
changed state to up

7500(config-if)#exit
!-- If you are using ISL trunking, configure two
FastEthernet !-- sub-interfaces and enable ISL trunking
by issuing !-- the encapsulation isl

command. !-- Configure the IP addresses for
InterVLAN routing.

7500(config)#int fast 5/1/1.1
7500(config-subif)#encapsulation isl 1
7500(config-subif)#ip address 10.10.10.1 255.255.255.0
7500(config-subif)#exit
7500(config)#int fast 5/1/1.2
7500(config-subif)#encapsulation isl 2
7500(config-subif)#ip address 10.10.11.1 255.255.255.0
7500(config-subif)#exit

!-- If you are using 802.1q trunking, configure two !--
FastEthernet sub-interfaces, enable 802.1q trunking !--
by issuing the encapsulation dot1Q

command, !-- and configure the IP addresses
for InterVLAN routing.

!-- Note: The encapsulation dot1Q 1 native command !--
was added in Cisco IOS version 12.1(3)T. If you are
using an earlier !-- version of Cisco IOS, refer to the
sample configuration output !-- 802.1q configuration for
Cisco IOS Versions Earlier than 12.1\(3\)T !-- to
configure 802.1q trunking on the router. !-- Make sure
the native VLAN (default is VLAN 1) matches across the
link. !-- For more information on the native VLAN and
802.1q trunking, refer to !-- Trunking Between Catalyst
```

```
4500/4000, 5500/5000, and 6500/6000 Family Switches  
Using !-- 802.1q Encapsulation. 7500(config)#int fast  
5/1/1.1  
7500(config-subif)#encapsulation dot1Q 1 native  
7500(config-subif)#ip address 10.10.10.1 255.255.255.0  
7500(config-subif)#exit  
7500(config)#int fast 5/1/1.2  
7500(config-subif)#encapsulation dot1Q 2  
7500(config-subif)#ip address 10.10.11.1 255.255.255.0  
7500(config-subif)#exit  
!-- Remember to save the configuration. 7500#write  
memory  
Building configuration...  
[OK]  
7500#
```

*!-- Note:* In order to make this setup work, and to successfully ping !-- between Workstation 1 and Workstation 2, you need to make sure that the default !-- gateways on the workstations are setup properly. For Workstation 1, the default !-- gateway should be 10.10.10.1 and for Workstation 2, the default gateway should !-- be 10.10.11.1.

```
7500#show running-config  
Building configuration...  
  
Current configuration : 1593 bytes  
!  
version 12.2  
no service pad  
service timestamps debug uptime  
service timestamps log uptime  
no service password-encryption  
no service single-slot-reload-enable  
!  
hostname 7500  
!  
boot system disk1:rsp-jsv-mz.122-7b.bin  
!  
ip subnet-zero  
!  
ip cef  
call rsvp-sync  
!  
!  
!  
!  
interface FastEthernet5/1/0  
no ip address  
no ip mroute-cache  
speed 100  
full-duplex  
!  
interface FastEthernet5/1/1  
no ip address  
no ip mroute-cache  
speed 100  
full-duplex  
!  
interface FastEthernet5/1/1.1
```

```

encapsulation isl 1
ip address 10.10.10.1 255.255.255.0
!
interface FastEthernet5/1/1.2
encapsulation isl 2
ip address 10.10.11.1 255.255.255.0

!-- If 802.1q trunking is configured, !-- you will see
the following output instead: !-- interface
FastEthernet5/1/1.1 !-- encapsulation dot1Q 1 native !--
ip address 10.10.10.1 255.255.255.0 !-- ! !-- interface
FastEthernet5/1/1.2 !-- encapsulation dot1Q 2 !-- ip
address 10.10.11.1 255.255.255.0

!
!
ip classless
no ip http server
ip pim bidir-enable
!
!
!
!
line con 0
line aux 0
line vty 0 4
  login
!
end
7500#

```

在低於12.1(3)T的Cisco IOS版本中，子介面下的**encapsulation dot1Q 1 native**命令不可用。但是，仍然需要匹配鏈路上的本徵VLAN（如所述）。

為了在低於12.1(3)T的軟體版本中配置802.1q中繼，本徵VLAN（本文檔中的VLAN 1）的IP地址在主快速乙太網介面上配置，而不是在快速乙太網子介面上配置。

### 在Cisco 7500上為12.1(3)T之前的Cisco IOS版本配置802.1Q

```

7500#configure terminal
Enter configuration commands, one per line. End with
CNTL/Z.

!-- Configure the FastEthernet interfaces for speed 100
!-- depending on the port adapter. Some FastEthernet
port adapters can !-- auto-negotiate speed (10 or 100)
and duplex (half or full). !-- Others are only capable
of 100 (half or full). 7500(config)#int Fast 5/1/1
!-- Configure full-duplex to match the duplex setting !-
- on the Catalyst switch side. 7500(config-if)#full-
duplex
7500(config-if)#speed 100

7500(config-if)#no shut
7500(config-if)#

01:46:09: %LINK-3-UPDOWN: Interface FastEthernet5/1/1,
changed state to up
01:46:10: %LINEPROTO-5-UPDOWN: Line protocol on

```



```
Interface FastEthernet5/1/1,
changed state to up

7500(config-if)#exit
!-- Do not configure an interface FastEthernet5/1/1.1.
!-- Instead, configure the IP address for VLAN 1 (the
native VLAN). 7500(config)#int Fast 5/1/1
7500(config-if)#ip address 10.10.10.1 255.255.255.0
7500(config-if)#exit
7500(config)#
!-- It is still necessary to create a sub-interface for
VLAN 2. 7500(config)#int Fast 5/1/1.2
7500(config-subif)#encapsulation dot1Q 2
7500(config-subif)#ip address 10.10.11.1 255.255.255.0
7500(config-subif)#exit
! -- Remember to save the configuration. 7500#write
memory
Building configuration...
[OK]
7500#

!-- Note: Remember also that in any version of software
previous !-- to Cisco IOS 12.2 or 12.2T for the 7000 or
7500 series router, you !-- have to issue the no ip cef
command globally before configuring !-- 802.1q trunking
on a sub-interface. Otherwise, you will see the !--
following error message: !-- 802.1q encapsulation not
supported with CEF configured on the !-- interface. !--
For more information, refer to the Components Used
section of !-- this document. 7500#show running-config
Building configuration...
Current configuration : 1593 bytes
!
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 7500
!
!
ip subnet-zero
!
no ip cef
!
!
!
interface FastEthernet5/1/0
no ip address
no ip mroute-cache
speed 100
full-duplex
!
interface FastEthernet5/1/1
ip address 10.10.10.1 255.255.255.0
speed 100
full-duplex
hold-queue 300 in
!
interface FastEthernet5/1/1.2
encapsulation dot1Q 2
ip address 10.10.11.1 255.255.255.0
!
```

```
!  
!  
ip classless  
no ip http server  
!  
!  
!  
line con 0  
line aux 0  
line vty 0 4  
  login  
!  
end  
7500#
```

## 驗證

本節提供的資訊可用於確認您的組態是否正常運作。

[輸出直譯器工具](#) (僅供註冊客戶使用) 支援某些show命令，此工具可讓您檢視show命令輸出的分析。

在Catalyst 6500交換器上，發出以下命令：

- 顯示介面
- show ip route
- show port capabilities <mod/port>
- show port counters <mod/port>
- show port <mod>
- show vlan
- show trunk

在Cisco 7500路由器上，發出以下命令：

- show interfaces fastethernet <slot/port-adapter/port>

### Catalyst 6500 show命令

show interface命令顯示sc0管理介面IP地址和VLAN。本範例中使用的是預設VLAN，即VLAN 1。

```
Catalyst6500> (enable) show interface  
s10: flags=51<UP,POINTOPOINT,RUNNING>  
slip 0.0.0.0 dest 0.0.0.0  
sc0: flags=63
```

```
Catalyst6500> (enable)
```

show ip route命令會顯示預設閘道。在本示例中，10.10.10.1是埠通道1 (用於802.1q中繼) 或埠通道1.1 (用於ISL中繼) 的IP地址。

```
Catalyst6500> (enable) show ip route
```

```
Fragmentation  Redirect  Unreachable
-----
enabled        enabled  enabled
```

**The primary gateway: 10.10.10.1**

Destination	Gateway	RouteMask	Flags	Use	Interface
default	10.10.10.1	0x0	UG	0	sc0
10.10.10.0	10.10.10.2	0xffffffff00	U	8	sc0
default	default	0xff000000	UH	0	sl0

Catalyst6500> (enable)

**show port capabilities <mod/port>**命令會檢視交換模組的硬體功能。此範例顯示連線埠3/1 ( 3/2相同 ) 具備EtherChannel功能、其支援哪個主幹封裝和其他資訊。

Catalyst6500> (enable) **show port capabilities 3/1**

```
Model                WS-X6248-RJ-45
Port                 3/1
Type                 10/100BaseTX
Speed                auto,10,100
Duplex               half,full
Trunk encap type     802.1Q,ISL
Trunk mode           on,off,desirable,auto,nonegotiate
Channel              yes
Broadcast suppression percentage(0-100)
Flow control         receive-(off,on),send-(off)
Security             yes
Membership            static,dynamic
Fast start           yes
QOS scheduling       rx-(1q4t),tx-(2q2t)
CoS rewrite          yes
ToS rewrite          DSCP
UDLD                 yes
Inline power         no
AuxiliaryVlan        1..1000,untagged,dot1p,none
SPAN                 source,destination
COPS port group      not supported
```

Catalyst6500> (enable)

**show port counters <mod/port>**命令會檢視可能的連線埠錯誤。在本範例中，此連線埠沒有任何錯誤。如果連線埠發生錯誤，請參閱[疑難排解交換器連線埠問題](#)以瞭解詳細資訊。

Catalyst6500> (enable) **show port counters 3/1**

Port	Align-Err	FCS-Err	Xmit-Err	Rcv-Err	UnderSize
3/1	0	0	0	0	0

Port	Single-Col	Multi-Coll	Late-Coll	Excess-Col	Carri-Sen	Runts	Giants
3/1	0	0	0	0	0	0	-

Last-Time-Cleared

Thu May 2 2002, 02:11:55

Catalyst6500> (enable)

**show port <mod>**命令會顯示連線埠狀態、VLAN、中繼以及速度和雙工資訊。在本例中，工作站1的接入埠是3/3，位於VLAN 1中。工作站2的接入埠是3/4，即VLAN 2。埠3/1是中繼埠。

Catalyst6500> (enable) **show port 3**

Port	Name	Status	VLAN	Duplex	Speed	Type
------	------	--------	------	--------	-------	------

```

-----
3/1      connected  trunk      full  100 10/100BaseTX
3/2      connected  1             full  100 10/100BaseTX
3/3      connected  1             a-half a-10 10/100BaseTX
3/4      connected  2             a-full a-100 10/100BaseTX

```

*!-- Output truncated*

**show vlan**命令會顯示哪些連線埠已指派給特定VLAN。請注意，中繼埠3/1未在此輸出中顯示，這是正常現象。

```

Catalyst6500> (enable) show vlan
VLAN Name                Status    IfIndex Mod/Ports, Vlans
-----
1    default                active   119    2/1-2
                                3/2-3,3/5-48
                                4/1-24
2    VLAN0002              active   124    3/4

```

*!-- Output truncated*

**show trunk**命令會顯示中繼模式、封裝型別、允許的VLAN和活動VLAN。在本例中，VLAN 1（預設情況下始終允許且活動）和VLAN 2是中繼的當前活動VLAN。請注意，中繼埠位於VLAN 1中。

```

Catalyst6500> (enable) show trunk
* - indicates vtp domain mismatch
Port      Mode          Encapsulation  Status      Native vlan
-----
3/1      nonegotiate isl          trunking    1

Port      VLANs allowed on trunk
-----
3/1      1-1005

Port      VLANs allowed and active in management domain
-----
3/1     1-2

Port      VLANs in spanning tree forwarding state and not pruned
-----
3/1      1-2

```

對於802.1q中繼，命令的輸出將以下列方式更改：

```

Catalyst6500> (enable) show trunk
* - indicates vtp domain mismatch
Port      Mode          Encapsulation  Status      Native VLAN
-----
3/1      nonegotiate dot1q        trunking    1

Port      VLANs allowed on trunk
-----
3/1      1-1005

Port      VLANs allowed and active in management domain
-----
3/1      1-2

Port      VLANs in spanning tree forwarding state and not pruned
-----
3/1      1-2

```

Catalyst6500> (enable)

## Cisco 7500路由器show命令

這是ISL中繼的輸出：

```
7500#show interface FastEthernet5/1/1.1
FastEthernet5/1/1.1 is up, line protocol is up
  Hardware is cyBus FastEthernet Interface, address is 0001.6490.f8a8 (bia 0001.
6490.f8a8)
  Internet address is 10.10.10.1/24
  MTU 1500 bytes, BW 200000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ISL Virtual LAN, Color 1.
  ARP type: ARPA, ARP Timeout 04:00:00
```

```
7500#show interface FastEthernet5/1/1.2
FastEthernet5/1/1.2 is up, line protocol is up
  Hardware is cyBus FastEthernet Interface, address is 0001.6490.f8a8 (bia 0001.
6490.f8a8)
  Internet address is 10.10.11.1/24
  MTU 1500 bytes, BW 200000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ISL Virtual LAN, Color 2.
  ARP type: ARPA, ARP Timeout 04:00:00
```

**show interfaces fastethernet <slot/port-adapter/port>**命令會顯示路由器實體介面的狀態，以及介面上是否存在任何錯誤。在此範例中，它沒有錯誤。

```
7500#show interface fa5/1/0
FastEthernet5/1/0 is up, line protocol is up
  Hardware is cyBus FastEthernet Interface, address is 0001.6490.f8a8 (bia 0001.
6490.f8a8)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 1d00h, output 00:00:07, output hang never
  Last clearing of "show interface" counters 1d00h
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    2929 packets input, 425318 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog
    0 input packets with dribble condition detected
    12006 packets output, 1539768 bytes, 0 underruns
    0 output errors, 0 collisions, 6 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out
7500#
```

[疑難排解](#)

目前尚無適用於此組態的具體疑難排解資訊。

## [相關資訊](#)

- [使用外部路由器在Catalyst 2900XL/3500XL/2950交換器上設定InterVLAN路由和ISL/802.1Q中繼](#)
- [在CatOS交換機和外部路由器之間配置快速EtherChannel和ISL/802.1q中繼](#)
- [LAN交換器技術支援](#)
- [LAN交換器產品支援](#)
- [技術支援與文件 - Cisco Systems](#)