CISCO SYSTEMS

Field Notice

Ethernet Switch Nework Module Restrictions for DLSw+ and DLSw+ Ethernet Redundancy

Last updated: June 2006

This Field Notice explains restrictions and configuration requirements for the NM-16ESW, NM-36ESW, and WIC-4ESW Ethernet Switch Modules, when both data-link switching plus (DLSw+) and IP routing are required.

PROBLEM DESCRIPTION

The NM-16ESW, NM-36ESW, and WIC-4ESW 10/100 Fast Ethernet Switch Network Modules impose restrictions for DLSw+ and IP addressing on the same interface. They also do not support the simultaneous use of the Ethernet Redundancy feature of DLSw+ and IP addressing on the same interface.

BACKGROUND

The NM-16ESW, NM-36ESW, and WIC-4ESW added support for bridging for Switched Virtual Interface (SVI) in Cisco IOS® Software Releases 12.2(15)ZJ and 12.3(4)T. This support requires the use of Integrated Routing and Bridging (IRB) to simultaneously bridge Logical Link Control (LLC) traffic and route IP traffic to SVI. This also precludes the simultaneous use of the Ethernet Redundancy feature of DLSw+ and IP addressing on the same interface. DLSw+ and the Ethernet Redundancy feature will operate normally, whether an IP address is configured or not, but the IP address routing will fail, when both are configured on a SVI.
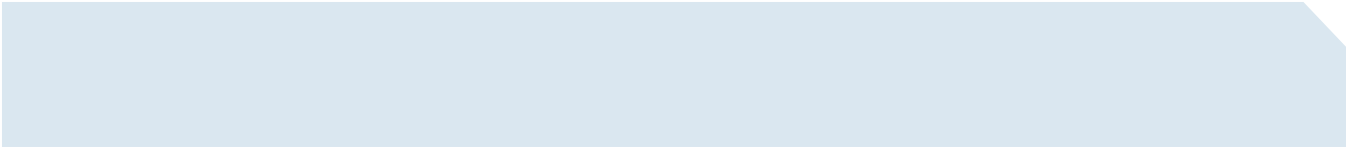
PROBLEM SYMPTOMS

The symptom is that IP communication between the router and any end systems connected to the affected VLAN will not work.

WORKAROUND/SOLUTION

DLSw+ and IP routing can be configured to work together by using IRB. The following example shows how this might be configured.

```
Bridge irb
Dlsw local-peer peer-id 10.10.10.1
Dlsw remote-peer 0 tcp 10.20.20.1
Dlsw bridge-group 10
Dlsw bridge-group 20
Interface fastethernet 1
Switchport access-vlan 10
Interface fastethernet 2
Switchport access-vlan 20
Interface vlan 10
Bridge-group 10
Interface vlan 20
Bridge-group 20
Interface BVI 10
Ip address 10.10.10.1 255.255.255.0
Interface BVI 20
Ip address 20.20.20.1 255.255.255.0
```

```
Bridge 10 protocol ieee
Bridge 10 route ip
Bridge 20 protocol ieee
Bridge 20 route ip
```

Note: This notice affects the following products:

Product	Remarks
NM-16ESW	16-Port 10/100 Fast Ethernet Switch Module for Cisco 2600 and 3600 Series Multiservice Platforms and Cisco 3700 Multiservice Access Router
NM-36ESW	16-Port 10/100 Fast Ethernet Switch Module for Cisco 2600 and 3600 Series Multiservice Platforms and Cisco 3700 Series Multiservice Access Router
WIC-4ESW	4-Port 10/100 Fast Ethernet Switch Module for Cisco 1700 Series Modular Access Router
Cisco 1812/J	Integrated Service Router

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