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Setting Up a WCCP Policy Redirection in a Cisco Cache Engine

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Introduction

This document provides a sample configuration demonstrating how to set up a Web Cache Communication Protocol version 2 (WCCPv2) policy redirection in a Cisco 500 Series Cache Engine. To achieve this, classify packets with Border Gateway Protocol (BGP) attributes associated with the source or destination IP address of a packet. You can do this by using the **table-map** command in the BGP configuration and mapping the external entry attribute WCCP tag into the routing table.

Before You Begin

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Prerequisites

There are no specific prerequisites for this document.

Components Used

The information in this document is based on the software and hardware versions below.

- Cisco 7513 Router running Cisco IOS® Software Release 12.0(14)S
- Cisco Cache Engine 550 running Cisco Cache Software Release 2.3
- Cisco 2600 Router running Cisco IOS Software Release 12.0
- Windows NT Web servers

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

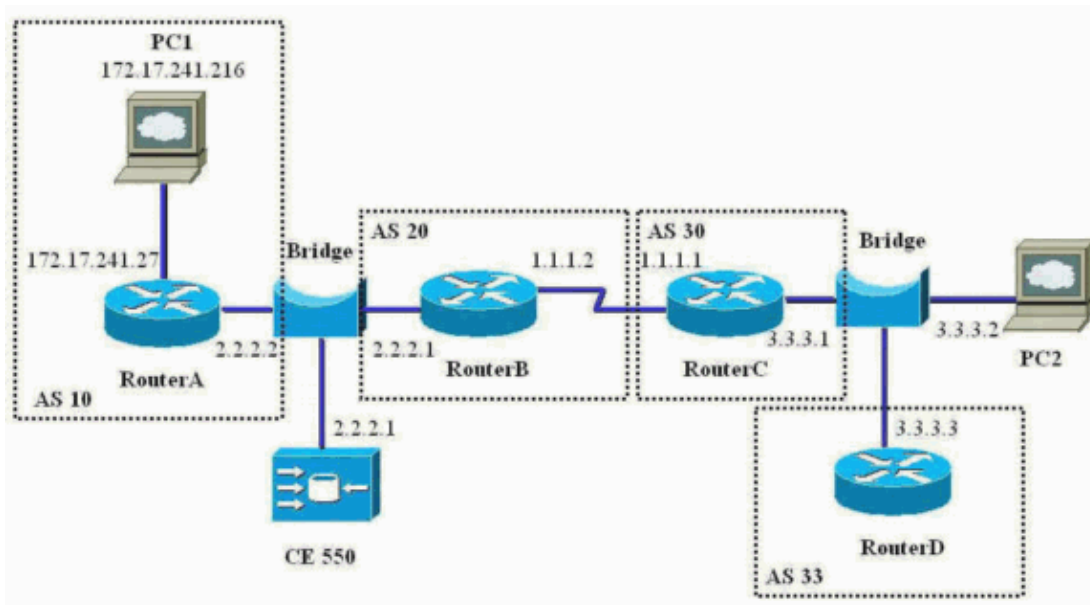
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only).

Network Diagram

This document uses the network setup shown in the diagram below.



Only traffic that is going to destination PC2 (belonging to AS30) is redirected to the Cache Engine, while other Autonomous System (AS) traffic (RouterD, http server 3.3.3.3 in AS33) is not.

Configurations

This document uses the configurations shown below.

- RouterA
- RouterB
- RouterC
- RouterD

RouterA
<pre>! interface FastEthernet0/0 ip address 2.2.2.2 255.255.255.0 ! interface FastEthernet0/1 ip address 172.17.241.27 255.255.255.0 ! router bgp 10 bgp log-neighbor-changes network 2.2.2.0</pre>

```
network 172.17.241.0
redistribute connected
neighbor 2.2.2.1 remote-as 20
```

RouterB

```
!
ip wccp web-cache password ww policy destination 60
ip cef distributed
!
interface Serial0/0
ip address 1.1.1.2 255.255.255.0
no ip directed-broadcast
!
interface Ethernet5/0
ip address 2.2.2.1 255.255.255.0
no ip directed-broadcast
ip wccp web-cache redirect in
ip route-cache same-interface
!
router bgp 20
table-map dst
network 2.2.2.0
redistribute connected
neighbor 1.1.1.1 remote-as 30
neighbor 2.2.2.2 remote-as 10
!
ip classless
!
access-list 1 permit 3.0.0.0 0.255.255.255
route-map DST permit 10
match ip address 1
set ip wccp 60
!
route-map DST permit 20
```

RouterC

```
!
interface Serial0/0
ip address 1.1.1.1 255.255.255.0
no ip directed-broadcast
clockrate 64000
!
interface Ethernet5/0
ip address 3.3.3.1 255.255.255.0
no ip directed-broadcast
!
router bgp 30
network 3.3.3.0
redistribute connected
neighbor 1.1.1.2 remote-as 20
neighbor 1.1.1.2 send-community
neighbor 1.1.1.2 route-map setcomm out
neighbor 3.3.3.3 remote-as 33
!
ip classless
ip bgp-community new-format
!
access-list 1 permit 77.0.0.0 0.255.255.255
route-map setcomm permit 10
match ip address 1
set community 4433:1050
```

```
!  
route-map setcomm permit 20  
!
```

RouterD

```
!  
interface Ethernet0  
ip address 3.3.3.3 255.255.255.0  
!  
router bgp 33  
bgp log-neighbor-changes  
network 33.33.33.0  
redistribute connected  
neighbor 3.3.3.1 remote-as 30  
!  
ip classless  
ip http server
```

Related Commands

You can configure the above router examples to other scenarios.

table-map

Change the WCCP policy from destination to source by using the **table-map** command. The traffic being redirected is now represented by every HTTP request with the source IP address specified in the route-map src.

```
!  
router bgp 20  
table-map src  
network 2.2.2.0  
redistribute connected  
neighbor 1.1.1.1 remote-as 30  
neighbor 2.2.2.2 remote-as 10  
!  
ip wccp web-cache password WW policy source 60  
!  
access-list 1 permit 172.0.0.0 0.255.255.255  
route-map src permit 10  
match ip address 1  
set ip wccp 60  
!  
route-map src permit 20  
!
```

match as-path

Change the condition for applying the WCCP tag to the BGP advertised routes. In the RouterC configuration above, the WCCP tag was applied to the BGP routes that belonged to the particular community 4433:1050. You can select other criteria in RouterB such as the as-path by using the **match as-path** command.

```
ip as-path access-list 121 permit ^30$  
!  
route-map setlist permit 10  
match as-path 121  
set ip wccp 60  
!
```

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- [Web Cache Communication Protocol Version 2](#)
 - [WCCP Router Configuration Commands](#)
 - [Technical Support – Cisco Systems](#)
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