4：实验解析

4.3 实验步骤

步骤1：完成EIGRP BGP 及宣告配置

步骤2：完成LDP 的配置

4.4 过程校验

步骤1：校验和理解LDP 邻居关系的发现和邻接关系的建立

R4#show mpls ldp discovery detail

Local LDP Identifier:

4.4.4.4:0

Discovery Sources:

Interfaces:

FastEthernet0/0 (ldp): xmit/recv

Enabled: Interface config

Hello interval: 5000 ms; Transport IP addr: 4.4.4.4

LDP Id: 5.5.5.5:0; no host route to transport addr

Src IP addr: 45.45.45.5; Transport IP addr: 5.5.5.5

Hold time: 15 sec; Proposed local/peer: 15/15 sec

Reachable via 5.5.5.0/24

FastEthernet0/1 (ldp): xmit/recv

Enabled: Interface config

Hello interval: 5000 ms; Transport IP addr: 4.4.4.4

LDP Id: 2.2.2.2:0; no host route to transport addr

Src IP addr: 24.24.24.2; Transport IP addr: 2.2.2.2

Hold time: 15 sec; Proposed local/peer: 15/15 sec

Reachable via 2.2.2.0/24

步骤2：校验邻接关系是否建立  
R4#show mpls ldp neighbor

Peer LDP Ident: 2.2.2.2:0; Local LDP Ident 4.4.4.4:0

TCP connection: 2.2.2.2.646 - 4.4.4.4.58866

**State: Oper;** Msgs sent/rcvd: 32/33; Downstream

Up time: 00:18:54

LDP discovery sources:

FastEthernet0/1, Src IP addr: 24.24.24.2

**Addresses bound to peer LDP Ident:**

**12.12.12.2 24.24.24.2 23.23.23.2 2.2.2.2**

Peer LDP Ident: 5.5.5.5:0; Local LDP Ident 4.4.4.4:0

TCP connection: 5.5.5.5.55110 - 4.4.4.4.646

State: Oper; Msgs sent/rcvd: 32/33; Downstream

Up time: 00:18:28

LDP discovery sources:

FastEthernet0/0, Src IP addr: 45.45.45.5

Addresses bound to peer LDP Ident:

45.45.45.5 56.56.56.5 35.35.35.5 5.5.5.5

步骤3：校验LDP 的标签分配、分发、关联

3.1 查看LIB

R2

R2#show mpls ldp bindings

tib entry: 2.2.2.0/24, rev 4

local binding: tag: imp-null

remote binding: tsr: 3.3.3.3:0, tag: 300

remote binding: tsr: 4.4.4.4:0, tag: 401

……………………………………

tib entry: 5.5.5.0/24, rev 10

local binding: tag: 203

remote binding: tsr: 3.3.3.3:0, tag: 302

remote binding: tsr: 4.4.4.4:0, tag: 403

…………………………………

R4

R4#show mpls ldp bindings

tib entry: 2.2.2.0/24, rev 4

local binding: tag: 401

remote binding: tsr: 2.2.2.2:0, tag: imp-null

remote binding: tsr: 5.5.5.5:0, tag: 500

…………………………

tib entry: 5.5.5.0/24, rev 10

local binding: tag: 403

remote binding: tsr: 2.2.2.2:0, tag: 203

remote binding: tsr: 5.5.5.5:0, tag: imp-null

R5#show mpls ldp bindings

tib entry: 2.2.2.0/24, rev 4

local binding: tag: 500

remote binding: tsr: 3.3.3.3:0, tag: 300

remote binding: tsr: 4.4.4.4:0, tag: 401

tib entry: 5.5.5.0/24, rev 10

local binding: tag: imp-null

remote binding: tsr: 3.3.3.3:0, tag: 302

remote binding: tsr: 4.4.4.4:0, tag: 403

此时利用show mpls ldp neighbor 获取对端设备共享的绑定地址

利用show ip route 查看目标网络真实下一跳地址

确认拥有下一跳地址和绑定地址重样的设备远程标签被关联

3.2 查看LFIB 确认正确的理解和分析了标签关联过程

R2#show mpls forwarding-table

Local Outgoing Prefix Bytes tag Outgoing Next Hop

tag tag or VC or Tunnel Id switched interface

200 400 35.35.35.0/24 0 Fa0/1 24.24.24.4

201 Pop tag 3.3.3.0/24 0 Se1/0 point2point

202 Pop tag 4.4.4.0/24 0 Fa0/1 24.24.24.4

**203 403 5.5.5.0/24 0 Fa0/1 24.24.24.4**

204 Pop tag 45.45.45.0/24 0 Fa0/1 24.24.24.4

R4#show mpls forwarding-table

Local Outgoing Prefix Bytes tag Outgoing Next Hop

tag tag or VC or Tunnel Id switched interface

400 Pop tag 35.35.35.0/24 0 Fa0/0 45.45.45.5

**401 Pop tag 2.2.2.0/24 8444 Fa0/1 24.24.24.2**

402 501 3.3.3.0/24 0 Fa0/0 45.45.45.5

201 3.3.3.0/24 0 Fa0/1 24.24.24.2

**403 Pop tag 5.5.5.0/24 5258 Fa0/0 45.45.45.5**

404 Pop tag 23.23.23.0/24 0 Fa0/1 24.24.24.2

R4#

R5#show mpls forwarding-table

Local Outgoing Prefix Bytes tag Outgoing Next Hop

tag tag or VC or Tunnel Id switched interface

**500 401 2.2.2.0/24 0 Fa0/0 45.45.45.4**

R5#