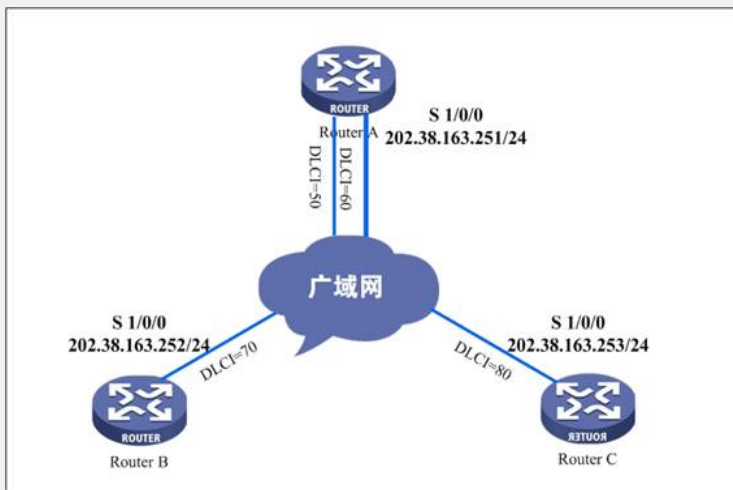


AR系列路由器通过帧中继网络互连局域网的典型配置

【需求】

Router A作为总部和分支Router B和C通过FR互连。

【组网图】



【配置脚本 - 静态映射方式】

RouterA配置脚本

```
#
sysname RouterA
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr /配置封装方式为FR, 默认为DTE/
fr map ip 202.38.163.252 50 /配置到RTB的静态地址映射/
fr map ip 202.38.163.253 60 /配置到RTC的静态地址映射/
ip address 202.38.163.251 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.1.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return
```

RouterB配置脚本

```
#
sysname RouterB
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr /配置封装方式为FR, 默认为DTE/
fr map ip 202.38.163.251 70 /配置到RTA的静态地址映射/
ip address 202.38.163.252 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.2.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return
```

RouterC配置脚本

```

#
sysname RouterC
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr          /配置封装方式为FR, 默认为DTE/
fr map ip 202.38.163.251 80 /配置到RTA的静态地址映射/
ip address 202.38.163.253 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.3.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return

```

FR交换机配置脚本

```

#
sysname FR-switch
#
fr switching              /启用FR交换功能/
#
radius scheme system
#
domain system
#
interface Serial2/0/0
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 50
fr dlci 60
#
interface Serial2/0/1
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 70
#
interface Serial2/0/2
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 80
#
interface NULL0
#
fr switch A-B interface Serial2/0/0 dlci 50 interface Serial2/0/1 dlci 70
                        /配置RTA和RTB的帧中继交换的PVC/
fr switch A-C interface Serial2/0/0 dlci 60 interface Serial2/0/2 dlci 80
                        /配置RTA和RTC的帧中继交换的PVC/
#
user-interface con 0
user-interface vty 0 4
#
return

```

【配置脚本 - 动态映射方式】

RouterA配置脚本

```

#
sysname RouterA
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr          /配置封装方式为FR, 默认为DTE/
ip address 202.38.163.251 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.1.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return

```

RouterB配置脚本

```

#
sysname RouterB
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr          /配置封装方式为FR, 默认为DTE/
ip address 202.38.163.252 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.2.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return

```

RouterC配置脚本

```

#
sysname RouterC
#
radius scheme system
#
domain system
#
interface Serial1/0/0
link-protocol fr          /配置封装方式为FR, 默认为DTE/
ip address 202.38.163.253 255.255.255.0
#
interface Ethernet0/0/0
ip address 192.168.3.1 255.255.255.0
#
interface NULL0
#
user-interface con 0
user-interface vty 0 4
#
return

```

FR交换机配置脚本

```

#
sysname FR-switch
#
fr switching              /启用FR交换功能/
#
radius scheme system
#
domain system
#
interface Serial2/0/0
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 50
fr dlci 60
#
interface Serial2/0/1
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 70
#
interface Serial2/0/2
link-protocol fr
fr interface-type dce     /配置接口类型为DCE/
fr dlci 80
#
interface NULL0
#
fr switch A-B interface Serial2/0/0 dlci 50 interface Serial2/0/1 dlci 70
                        /配置RTA和RTB的帧中继交换的PVC/
fr switch A-C interface Serial2/0/0 dlci 60 interface Serial2/0/2 dlci 80
                        /配置RTA和RTC的帧中继交换的PVC/
#
user-interface con 0
user-interface vty 0 4
#
return

```

【验证】

总部和分部可以相互ping通对方

静态映射方式RouterA的FR map:

```
<RouterA>disp fr map
```

```
PVC map Statistics for interface Serial1/0/0 (DTE)
```

DLCI = 50, IP 202.38.163.252, Serial1/0/0
create time = 2006/07/16 03:12:36, status = ACTIVE
encapsulation = ietf, vlink = 1
DLCI = 60, IP 202.38.163.253, Serial1/0/0
create time = 2006/07/16 03:12:36, status = ACTIVE
encapsulation = ietf, vlink = 2

动态映射方式RouterA的FR map:

```
[RouterA]disp fr map
PVC map Statistics for interface Serial1/0/0 (DTE)
DLCI = 50, IP INARP 202.38.163.252, Serial2/0/0
create time = 2006/07/16 03:41:39, status = ACTIVE
encapsulation = ietf, vlink = 4, broadcast
DLCI = 60, IP INARP 202.38.163.253, Serial1/0/0
create time = 2006/07/16 03:41:39, status = ACTIVE
encapsulation = ietf, vlink = 3, broadcast
```

FR交换机的FR交换表:

```
<FR-switch>disp fr switch-table all
Total PVC switch records:2
PVC-Name          Status  Interface(Dlci) <-----> Interface(Dlci)
A-B                Active  Serial2/0/0(50)   Serial2/0/1(70)
A-C                Active  Serial2/0/0(60)   Serial2/0/2(80)
```

【提示】

1. DLCI号只具有本地意义，非全局参数，需要运营商提供该参数。
2. 帧中继网络用户接口上最多可支持1024条虚电路，其中用户可用的DLCI范围是16~1007。
3. 缺省情况下，系统允许对IP和IPX协议进行逆向地址解析。
4. 当路由器和本地FR交换机的协商通过后，link protocol就会up，但是并部表示端到端可以通信。