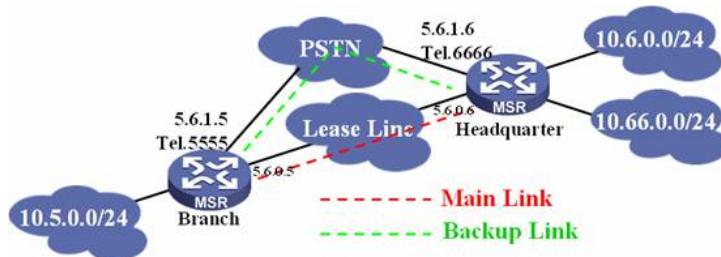**MSR Series**
Dynamic Route Backup configuration

Keywords: MSR; Dialer; Dynamic Route Backup

1. Customer requirements

Customer uses leased line as its main link between branches and headquarter, and use PSTN dialer link as backup. Branches and headquarter running OSPF to exchange routes on the main link, the branch monitor the route 10.6.0.0/24 and 10.66.0.0/24 learned by OSPF, if these routes turn to inactive, it will trigger the dialer process on backup link to recover the communication towards 10.6.0.0/24 and 10.66.0.0/24. Generally, the OSPF cost on backup link is larger than the main link.

Devices list: 2 MSR routers

2. Topology

3. Active configuration

Branch configuration
<pre>#
// permit ip flow trigger the dialer process
dialer-rule 1 ip permit
// define the standby routing-rule to monitor the 10.6.0.0/24 and 10.66.0.0/24
standby routing-rule 1 ip 10.6.0.1 255.255.255.0
standby routing-rule 1 ip 10.66.0.1 255.255.255.0
#
// the Analogmodem interface connect to the PSTN
interface Analogmodem2/0
// specify the async mode to protocol, default is flow
async mode protocol
link-protocol ppp
// specify ip address of this interface
ip address 5.6.1.5 255.255.255.252
// enable the circular dialer function
dialer enable-circular
// specify the dialer-group, equals to dialer-rule 1 defined before
dialer-group 1
// specify the dialer-route, which are same with standby routing-rule defined before
dialer route ip 10.6.0.0 mask 24 6666
dialer route ip 10.66.0.0 mask 24 6666
// specify the standby routing-group 1
standby routing-group 1
#
interface Ethernet0/0
port link-mode route
ip address 10.5.0.1 255.255.255.0
#
// the main link interface
interface Ethernet0/1
port link-mode route
ip address 5.6.0.5 255.255.255.252
#
// OSPF configuration
ospf 1 router-id 5.5.5.5
area 0.0.0.0
network 5.6.0.0 0.0.255.255
network 10.5.0.0 0.0.0.255
#
// configr user-interface tty 33, this number can be check with dispaly user-interface command, you will find the Analogmodem2/0鈥樼 according tty number
user-interface tty 33
// enable this tty鈥?/span>s bi-direction modem function
modem both
#</pre>
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```
#
 // permit ip flow trigger the dialer process
 dialer-rule 1 ip permit
#
// headquarter is the response side, not need configuring the dialer number
interface Analogmodem1/0
 async mode protocol
 link-protocol ppp
 ip address 5.6.1.6 255.255.255.252
 dialer enable-circular
 dialer-group 1
#
// internal interface, the source of 10.6.0.0/24
interface Ethernet0/0
 port link-mode route
 ip address 10.6.0.1 255.255.255.0
#
// the main link interface
interface Ethernet0/1
 port link-mode route
 ip address 5.6.0.6 255.255.255.252
#
// internal interface, the source of 10.66.0.0/24
interface Ethernet0/2
 port link-mode route
 ip address 10.66.0.1 255.255.255.0
#
// OSPF configuration
ospf 1 router-id 6.6.6.6
 area 0.0.0.0
  network 5.6.0.0 0.0.255.255
  network 10.0.0.0 0.255.255.255
#
// tty configuration
user-interface tty 17
 modem both
#
```

1. Some advice

1) The modem interface must be set to async mode protocol, for the default mode flow is not for forwarding ip flow.

2) The tty interface must be enable the modem function.