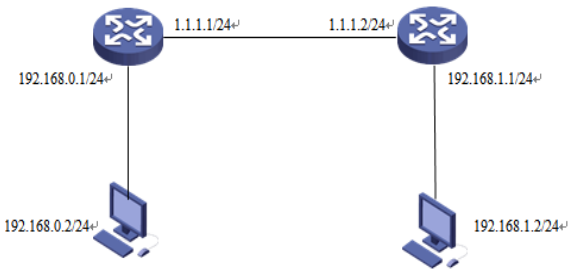
ACG1000与V7平台设备使用IPSEC主模式VPN对接案例

ACG1000 IPSec 刘嘉炜 2015-11-08 发表

客户目前使用ACG1000-S作为网络出口设备，现在要与对端MSR设备建立IPSEC VPN



配置任务（ACG1040）：
1、配置接口地址
2、配置路由
3、配置IKE
4、配置IPSEC
5、配置IPSEC安全策略
配置步骤：
1）配置接口地址

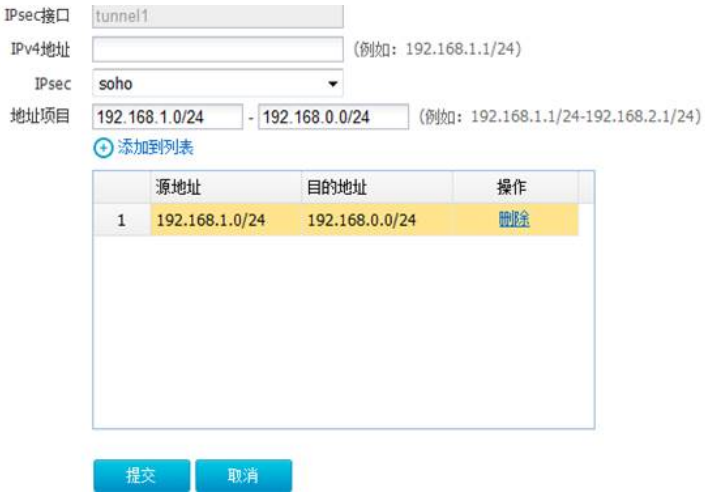
配置外网口ge1的ip地址为1.1.1.2/24，配置内网口ge0的ip地址为192.168.1.1/24
2）设置路由

3）配置IKE
点击设备左侧导航栏张的 VPN>IPSEC>新建IKE

4）新建IPSEC

注意这里的密匙周期必须要创建

5）创建IPSEC隧道接口



6）创建路由

在网络设置>静态路由>新建

显示的状态：

MSR2630上的配置：

```
interface GigabitEthernet0/0                    //配置内网接口
 port link-mode route
 ip address 192.168.0.1 255.255.255.0
#
interface GigabitEthernet0/1                    //配置外网接口
 port link-mode route
 ip address 1.1.1.1 255.255.255.0
 ipsec apply policy 1                           //绑定ipsec策略
#
 ip route-static 0.0.0.0 0 1.1.1.2              //配置路由
#
acl number 3000                                 //创建感兴趣流
rule 0 permit ip source 192.168.0.0 0.0.0.255 destination 192.168.1.0 0.0.0.255
#
ipsec transform-set 1                           //创建ipsec安全提议
 esp encryption-algorithm 3des-cbc
 esp authentication-algorithm md5
#
ipsec policy 1 1 isakmp                         //创建ipsec安全策略
 transform-set 1                                //绑定安全提议
 security acl 3000                              //绑定安全ACL
 remote-address 1.1.1.2                         //写远端地址
#
ike proposal 1
 encryption-algorithm 3des-cbc
 authentication-algorithm md5
#
ike keychain 1                                  //配置共享密匙
 pre-shared-key address 1.1.1.2 255.255.255.255 key cipher $c$3$+x9YOcATZDyMsPBX4G3UcDKL
raWt2QJqgw==
```

测试结果：

查看IPSEC安全联盟：

查看ike：

MSR上查看配置：

```
<H3C>display ike sa
   Connection-ID   Remote                Flag         DOI
-----------------------------------------------------------------
   2               1.1.1.2               RD           IPSEC
Flags:
RD--READY RL--REPLACED FD-FADING
```

```
<H3C>display ipsec sa
-------------------------------
Interface: GigabitEthernet0/1
-------------------------------

  -----------------------------
  IPsec policy: 1
  Sequence number: 1
  Mode: isakmp
  -----------------------------
    Tunnel id: 0
    Encapsulation mode: tunnel
    Perfect forward secrecy:
    Path MTU: 1443
    Tunnel:
        local  address: 1.1.1.1
        remote address: 1.1.1.2
    Flow:
    sour addr: 192.168.0.0/255.255.255.0  port: 0  protocol: ip
    dest addr: 192.168.1.0/255.255.255.0  port: 0  protocol: ip

    [Inbound ESP SAs]
      SPI: 3992791942 (0xedfd2b86)
      Transform set: ESP-ENCRYPT-3DES-CBC ESP-AUTH-MD5
      SA duration (kilobytes/sec): 1843200/3600
      SA remaining duration (kilobytes/sec): 1843199/3375
      Max received sequence-number: 3
      Anti-replay check enable: Y
      Anti-replay window size: 64
      UDP encapsulation used for NAT traversal: N
      Status: active

    [Outbound ESP SAs]
      SPI: 137057985 (0x082b56c1)
      Transform set: ESP-ENCRYPT-3DES-CBC ESP-AUTH-MD5
      SA duration (kilobytes/sec): 1843200/3600
      SA remaining duration (kilobytes/sec): 1843199/3375
      Max sent sequence-number: 3
      UDP encapsulation used for NAT traversal: N
      Status: active
```

ACG命令行显示的配置：

```
interface ge0
 ip address 192.168.1.1/24
!
interface ge1
 traffic-mode extern
 ip address 1.1.1.2/24
!
interface tunnel 1 mode ipsec
 mtu 1420
!
vpn ipsec phase1
  edit gateway soho
    set mode main
    set remotegw 1.1.1.1
    authentication pre-share
    set preshared-key secret kTgxl5p34DqlzzT+XZ0R14cv6Qal7urj9YogDjQGHYyVxSLYlpmOxTPwro
4b0aN
    lifetime 86400
    set dpd retry 5
    set nat 10
    group 1
    set policy 1
      encrypt 3des
      hash md5
      exit
    set modecfg-server
      modecfg-server disable
      exit
!
vpn ipsec phase2
  edit tunnel soho
    set peer soho
    mode tunnel
    set lifetime seconds 86400
    set proposal1 esp-3des-md5 ah-null
!
interface tunnel1
  tunnel-ipsec soho
  tunnel-ipsec interested-subnet pair 192.168.1.0/24 192.168.0.0/24
!
policy default-action permit
policy white-list enable
!
ip route 0.0.0.0/0 1.1.1.1
ip route 192.168.0.0/24 tunnel1
```