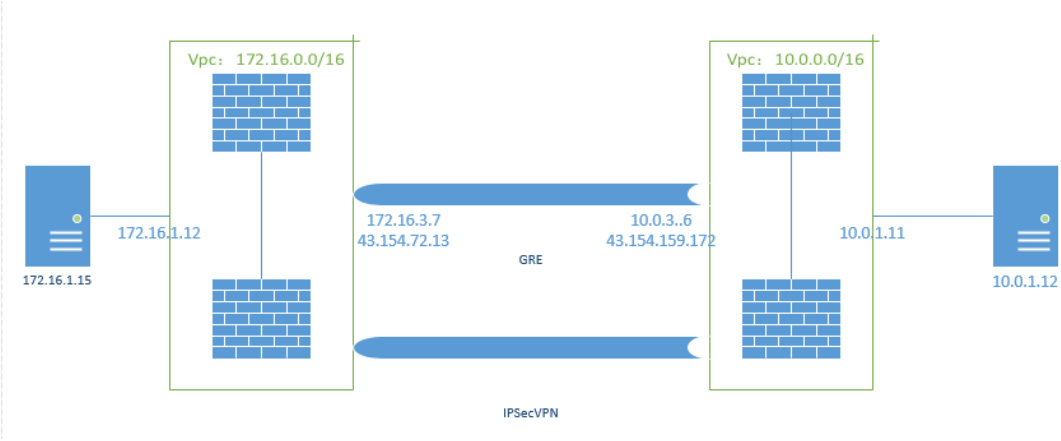
5.5R9P6 版本腾讯云环境验证

组网拓扑和环境：



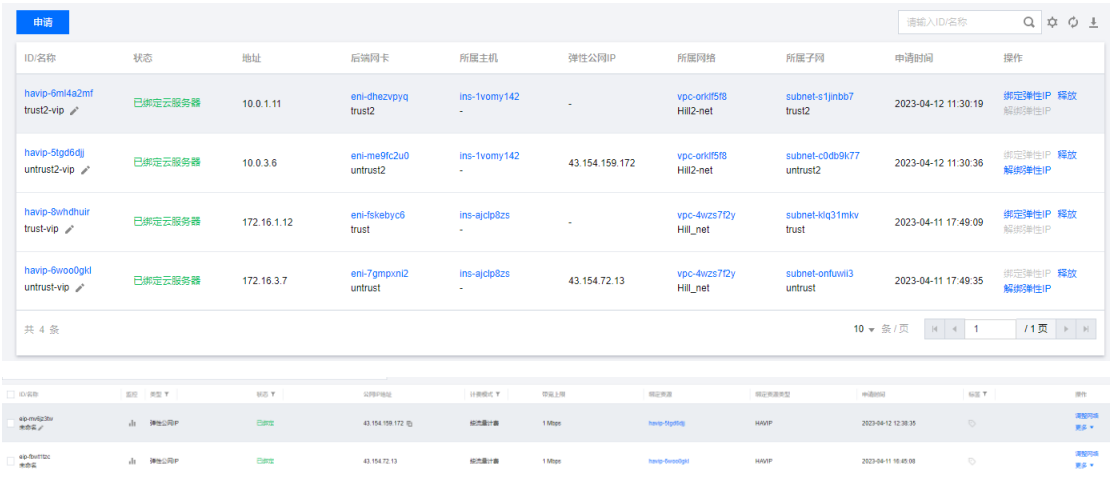
两个 VPC

8 个子网

ID/名称	所属网络	CIDR	可用区	关联路由表	云服务器	可用IP	默认子网	创建时间	标签	操作
subnet-s1jnbb7 trust2	vpc-orkff5f8 Hill2-net	10.0.1.0/24	香港二区	rtb-rjrke445 -	0	252	否	2023-04-12 11:24:15		删除 更多
subnet-8mjn7xs1 ha2	vpc-orkff5f8 Hill2-net	10.0.2.0/24	香港二区	rtb-rjrke445 -	0	253	否	2023-04-12 11:24:15		删除 更多
subnet-c0db9k77 untrust2	vpc-orkff5f8 Hill2-net	10.0.3.0/24	香港二区	rtb-rjrke445 -	0	252	否	2023-04-12 11:24:15		删除 更多
subnet-ncabwwx5 mgmt	vpc-orkff5f8 Hill2-net	10.0.0.0/24	香港二区	rtb-rjrke445 -	2	251	否	2023-04-12 11:23:27		删除 更多
subnet-klq31mkv trust	vpc-4wzs7f2y Hill_net	172.16.1.0/24	香港二区	rtb-kxref0gt -	1	248	否	2023-04-11 10:20:42		删除 更多
subnet-m3ykjiel ha	vpc-4wzs7f2y Hill_net	172.16.2.0/24	香港二区	rtb-kxref0gt -	0	250	否	2023-04-11 10:20:42		删除 更多
subnet-onfuwii3 untrust	vpc-4wzs7f2y Hill_net	172.16.3.0/24	香港二区	rtb-kxref0gt -	0	249	否	2023-04-11 10:20:42		删除 更多
subnet-e8b2gylp mgmt	vpc-4wzs7f2y Hill_net	172.16.0.0/24	香港二区	rtb-kxref0gt -	2	251	否	2023-04-11 10:19:51		删除 更多

4 组实例+2 组 PC

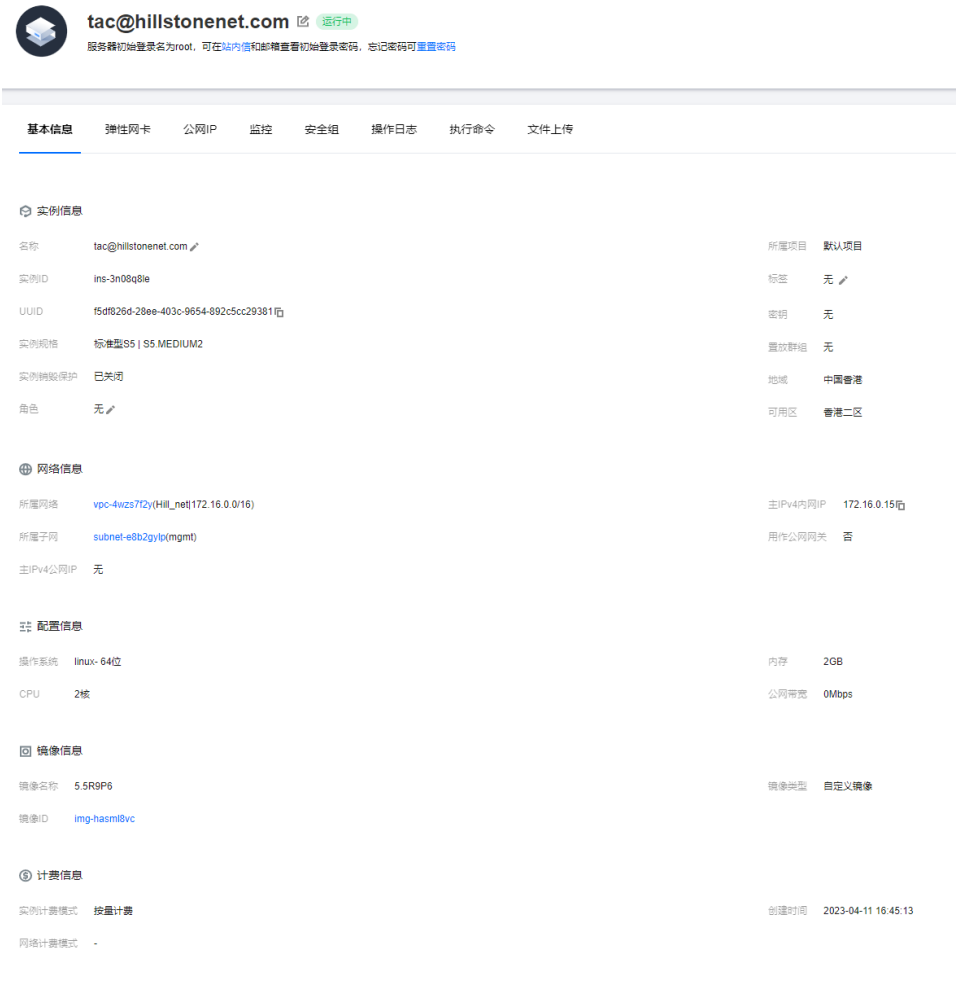
高可用 IP 和弹性公网 ip

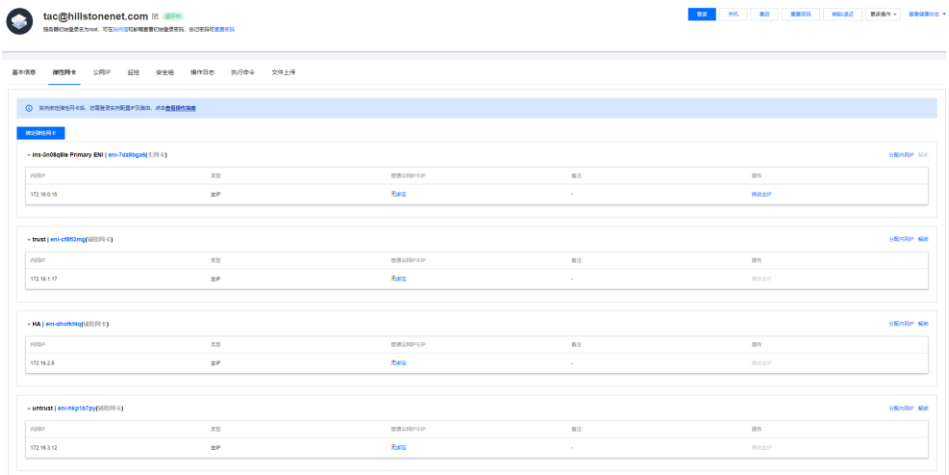


安装部署验证

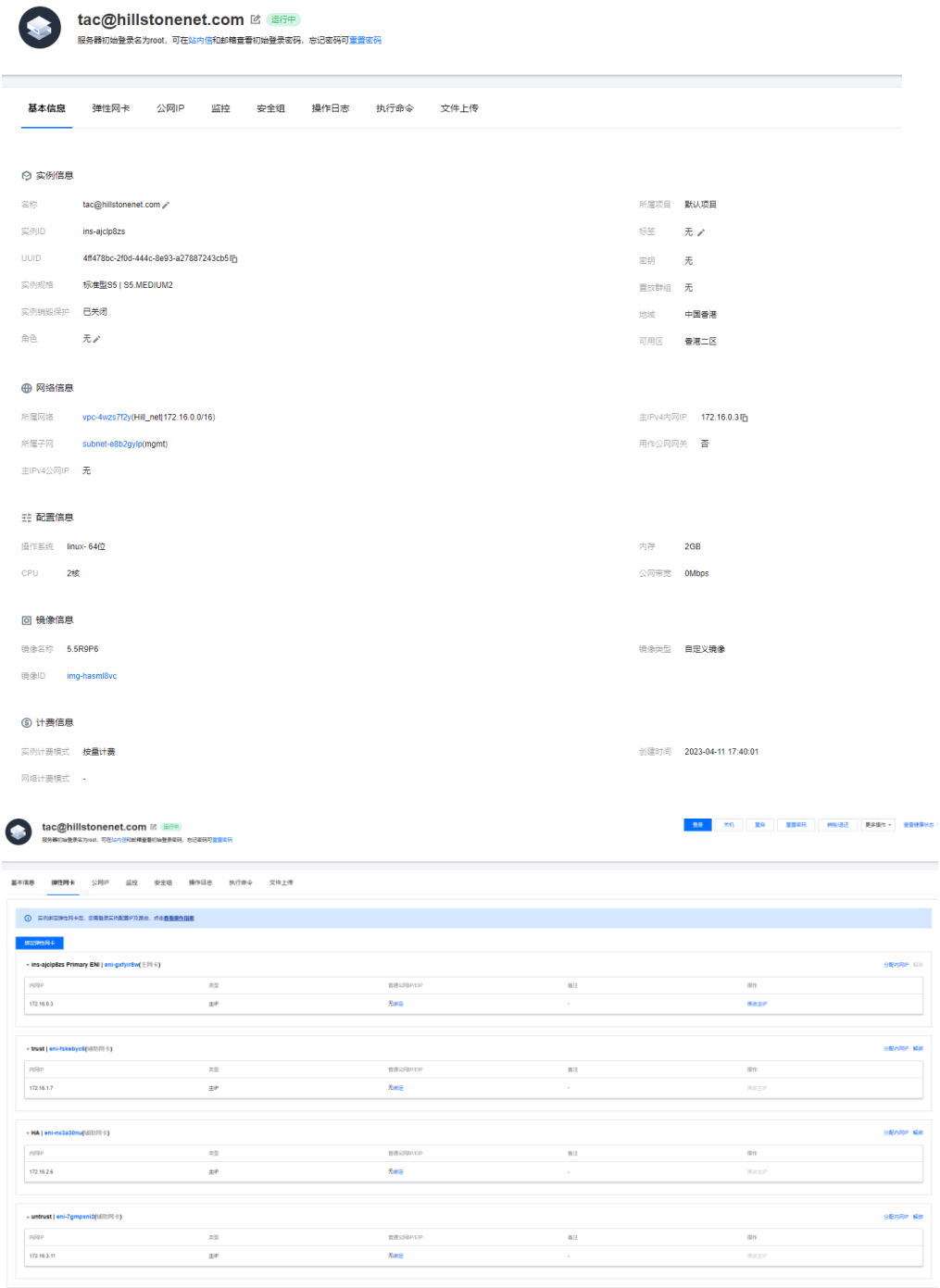
配置参考：https://kb.hillstonenet.com/cn/cloud-deployment-case-tencent-public/

主设备资源


tac@hillstonenet.com
运行中
服务器初始登录名为root，可在站内信和邮箱查看初始登录密码，忘记密码可重置密码
基本信息
弹性网卡
公网IP
监控
安全组
操作日志
执行命令
文件上传
实例信息
名称 tac@hillstonenet.com
实例ID ins-3n08q8le
UUID f5df826d-28ee-403c-9654-892c5cc29381
实例规格 标准型S5 | S5.MEDIUM2
实例销毁保护 已关闭
角色 无
所属项目 默认项目
标签 无
密钥 无
置放群组 无
地域 中国香港
可用区 香港二区
网络信息
所属网络 vpc-4wzs7f2y(Hill_net|172.16.0.0/16)
所属子网 subnet-e8b2gyip(mgmt)
主IPv4公网IP 无
主IPv4内网IP 172.16.0.15
用作公网网关 否
配置信息
操作系统 linux- 64位
CPU 2核
内存 2GB
公网带宽 0Mbps
镜像信息
镜像名称 5.5R9P6
镜像ID img-hasml8vc
镜像类型 自定义镜像
计费信息
实例计费模式 按量计费
网络计费模式 -
创建时间 2023-04-11 16:45:13

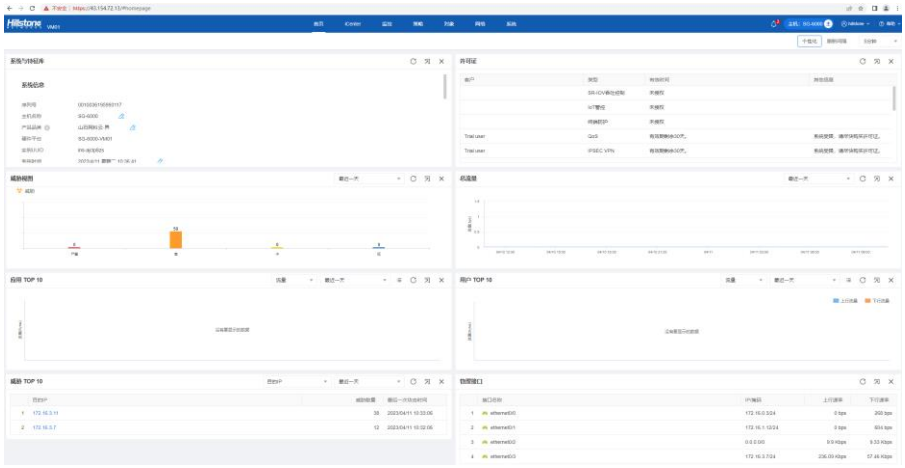

tac@hillstonenet.com

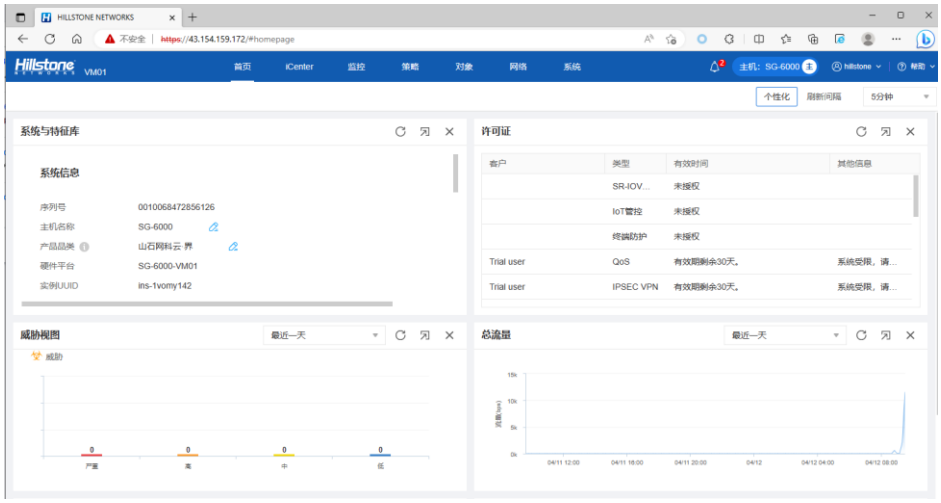
备设备资源


tac@hillstonenet.com
运行中
服务器初始登录名为root，可在站内信和邮箱查看初始登录密码，忘记密码可重置密码
基本信息
弹性网卡
公网IP
监控
安全组
操作日志
执行命令
文件上传
实例信息
名称 tac@hillstonenet.com
实例ID ins-ajclp8zs
UUID 4ff478bc-2f0d-444c-8e93-a27887243cb5
实例规格 标准型S5 | S5.MEDIUM2
实例销毁保护 已关闭
角色 无
所属项目 默认项目
标签 无
密钥 无
置放群组 无
地域 中国香港
可用区 香港二区
网络信息
所属网络 vpc-4wzs7f2y(Hill_net|172.16.0.0/16)
所属子网 subnet-e8b2gylp(mgmt)
主IPv4公网IP 无
主IPv4内网IP 172.16.0.3
用作公网网关 否
配置信息
操作系统 linux- 64位
CPU 2核
内存 2GB
公网带宽 0Mbps
镜像信息
镜像名称 5.5R9P6
镜像ID img-hasml8vc
镜像类型 自定义镜像
计费信息
实例计费模式 按量计费
网络计费模式 -
创建时间 2023-04-11 17:40:01

tac@hillstonenet.com

Web 界面状态





HA 配置验证

配置参考：
https://docs.hillstonenet.com/docs/202303/d_20230320110527032 7/%E5%B1%B1%E7%9F%B3%E4%BA%91%C2%B7%E7%95%8C%E9%83%A8%E7%BD%B2%E6%89%8B%E5%86%8CV5.5R10/Default.htm#TencentCloud-HA.htm%3FTocPath%3D____24

主设备版本信息，HA 状态

```
Hillstone Networks StoneOS software, Version 5.5
Copyright (c) 2009-2023 by Hillstone Networks

Product name: SG-6000-VM01 S/N: 0010036195993117 Assembly number: 000
Boot file is SG6000-CloudEdge-5.5R9P6
Storage UUID is 95320d6a-9119-42bd-acf7-850ad58e62fc
Instance UUID is ins-ajclp8zs
Update magic: 00230013013c0202cb
Built by buildmaster8 2023/01/13 20:51:01

Uptime is 0 day 0 hour 33 minutes 9 seconds
System language is "en"

VRouter feature: disabled

IPS feature: enabled
IPS magic: e4c4750c1c8f539a2681e9c74a0c6d2160c0

AV feature: enabled
AV magic: 0768596056464f5b99387698b09f2aacb96a

IP reputation feature: enabled
IP reputation magic: 0768596056464f5b99387698b09f2aacb96a

 --More-- _
```

```
SG-6000(M)# show ha group 0
HA Group id=0
  state  Master
  priority  100
  preempt  N/A
  monitor
  HA total peer number  1
  HA peer information:
     device id 0010023814946605
     ip  172.16.2.8
     state  Backup
     priority  150
SG-6000(M)#
```

备设备版本信息，HA 状态

```
Hillstone Networks StoneOS software, Version 5.5
Copyright (c) 2009-2023 by Hillstone Networks

Product name: SG-6000-VM01 S/N: 0010023814946605 Assembly number: 0000
Boot file is SG6000-CloudEdge-5.5R9P6
Storage UUID is 95320d6a-9119-42bd-acf7-850ad58e62fc
Instance UUID is ins-3n08q8le
Update magic: 00230013013c0202cb
Built by buildmaster8 2023/01/13 20:51:01

Uptime is 0 day 1 hour 24 minutes 37 seconds
System language is "en"

VRouter feature: disabled

IPS feature: enabled
IPS magic: fe16b1320bd0e50d1924ca173a3ea272debd

AV feature: enabled
AV magic: 0232e45a36ed8ddfff8425c5fc34771c7244

IP reputation feature: enabled
IP reputation magic: 0232e45a36ed8ddfff8425c5fc34771c7244

 --More--
```

```
SG-6000(B)(config)# show ha group 0
HA Group id=0
  state  Backup
  priority  150
  preempt  N/A
  monitor
  HA total peer number  1
  HA peer information:
     device id 0010036195993117
     ip  172.16.2.6
     state  Master
     priority  100
SG-6000(B)(config)# _
```

GRE 隧道验证

配置参考：https://kb.hillstonenet.com/cn/gre-vpn-clconfig-case/

```
SG-6000(M)# show tunnel gre
    Total GRE tunnel:1
    GRE tunnel name:Hill-1
    source interface:   NULL
    source ip:          172.16.3.7
    destination ip:     43.154.159.172
    outgoing interface: ethernet0/3
    next tunnel:        NULL
    bind scpu:     auto
    assign scpu:   0
    key check:disable

SG-6000(M)#
```

```
SG-6000(M)# show configuration interface tunnel1

interface tunnel1
  zone  "VPNHub"
  ip address 100.1.1.1 255.255.255.0
  tunnel gre "Hill-1" gw 100.1.1.2
exit
SG-6000(M)#
```

```
Routing Table for Virtual Router <trust-vr>
========================================================================
S>* 0.0.0.0/0 [1/0/1] via 172.16.3.1, ethernet0/3
S>* 10.0.0.0/16 [1/0/1] via 100.1.1.2, tunnel1
C>* 100.1.1.0/24 is directly connected, tunnel1
H>* 100.1.1.1/32 [0/0/1] is local address, tunnel1
C>* 172.16.0.0/24 is directly connected, ethernet0/0
H>* 172.16.0.3/32 [0/0/1] is local address, ethernet0/0
C>* 172.16.1.0/24 is directly connected, ethernet0/1
H>* 172.16.1.12/32 [0/0/1] is local address, ethernet0/1
K>* 172.16.2.0/24 is directly connnected, ha-interface
K>* 172.16.2.6/32 is local address, ha-interface
C>* 172.16.3.0/24 is directly connected, ethernet0/3
H>* 172.16.3.7/32 [0/0/1] is local address, ethernet0/3
========================================================================

Routing Table for Virtual Router <mgt-vr>
========================================================================
========================================================================
SG-6000(M)#
```

```
SG-6000(M)(config)# show tunnel gre
    Total GRE tunnel:1
    GRE tunnel name:Hill-2
    source interface:   NULL
    source ip:          10.0.3.6
    destination ip:     43.154.72.13
    outgoing interface: ethernet0/3
    next tunnel:        NULL
    bind scpu:     auto
    assign scpu:   0
    key check:disable

SG-6000(M)(config)#
```

```
SG-6000(M)(config)# show configuration interface tunnel1

interface tunnel1
  zone  "VPNHub"
  ip address 100.1.1.2 255.255.255.0
  tunnel gre "Hill-2" gw 100.1.1.1
exit
SG-6000(M)(config)#
```

```
Routing Table for Virtual Router <trust-vr>
========================================================================
S>* 0.0.0.0/0 [1/0/1] via 10.0.3.1, ethernet0/3
C>* 10.0.0.0/24 is directly connected, ethernet0/0
H>* 10.0.0.2/32 [0/0/1] is local address, ethernet0/0
C>* 10.0.1.0/24 is directly connected, ethernet0/1
H>* 10.0.1.11/32 [0/0/1] is local address, ethernet0/1
K>* 10.0.2.0/24 is directly connnected, ha-interface
K>* 10.0.2.14/32 is local address, ha-interface
C>* 10.0.3.0/24 is directly connected, ethernet0/3
H>* 10.0.3.6/32 [0/0/1] is local address, ethernet0/3
C>* 100.1.1.0/24 is directly connected, tunnel1
H>* 100.1.1.2/32 [0/0/1] is local address, tunnel1
S>* 172.16.0.0/16 [1/0/1] via 100.1.1.1, tunnel1
========================================================================

Routing Table for Virtual Router <mgt-vr>
========================================================================
========================================================================
SG-6000(M)(config)#
```

两端 PC 互访

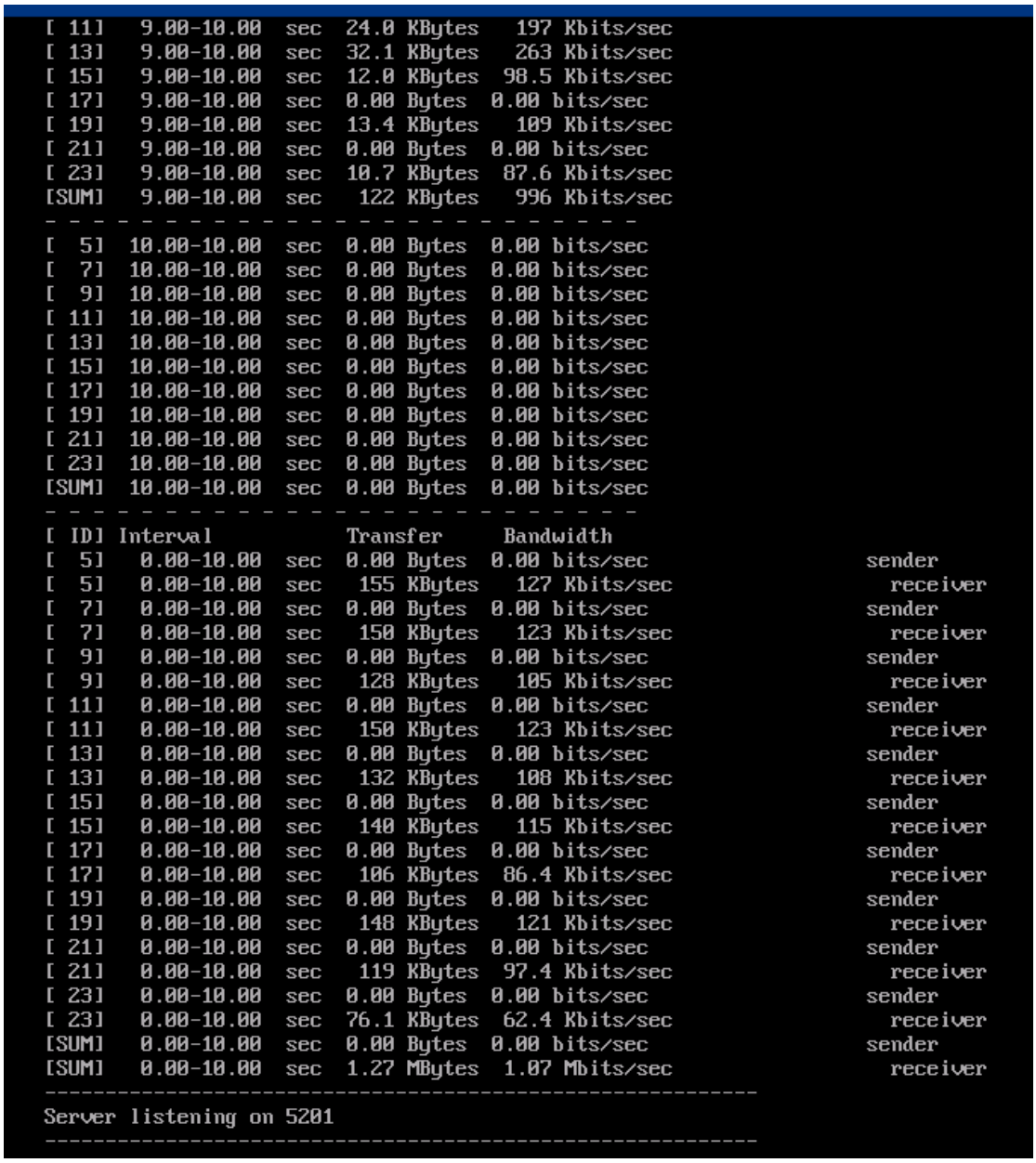
```
[root@VM-1-15-centos network-scripts]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.16.1.15  netmask 255.255.255.0  broadcast 172.16.1.255
        inet6 fe80::5054:ff:fed7:bf1f  prefixlen 64  scopeid 0x20<link>
        ether 52:54:00:d7:bf:1f  txqueuelen 1000  (Ethernet)
        RX packets 19961  bytes 10948097 (10.4 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 14571  bytes 2191524 (2.0 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 90  bytes 7760 (7.5 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 90  bytes 7760 (7.5 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@VM-1-15-centos network-scripts]# ping 10.0.1.12
PING 10.0.1.12 (10.0.1.12) 56(84) bytes of data.
64 bytes from 10.0.1.12: icmp_seq=1 ttl=62 time=2.12 ms
64 bytes from 10.0.1.12: icmp_seq=2 ttl=62 time=1.95 ms
64 bytes from 10.0.1.12: icmp_seq=3 ttl=62 time=2.12 ms
64 bytes from 10.0.1.12: icmp_seq=4 ttl=62 time=2.13 ms
64 bytes from 10.0.1.12: icmp_seq=5 ttl=62 time=2.08 ms
^C
--- 10.0.1.12 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4006ms
rtt min/avg/max/mdev = 1.958/2.083/2.130/0.064 ms
[root@VM-1-15-centos network-scripts]# traceroute 10.0.1.12
traceroute to 10.0.1.12 (10.0.1.12), 30 hops max, 60 byte packets
 1  172.16.1.12 (172.16.1.12)  1.060 ms  1.048 ms  1.032 ms
 2  pool-100-1-1-2.nwrknj.fios.verizon.net (100.1.1.2)  3.320 ms  3.310 ms  3.293 ms
 3  10.0.1.12 (10.0.1.12)  3.776 ms  3.771 ms  3.747 ms
[root@VM-1-15-centos network-scripts]# _
```

```
[root@VM-1-12-centos ~]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.1.12  netmask 255.255.255.0  broadcast 10.0.1.255
        inet6 fe80::5054:ff:fefc:3e8c  prefixlen 64  scopeid 0x20<link>
        ether 52:54:00:fc:3e:8c  txqueuelen 1000  (Ethernet)
        RX packets 66132  bytes 85834059 (81.8 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 15594  bytes 1670642 (1.5 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 7  bytes 808 (808.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 7  bytes 808 (808.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@VM-1-12-centos ~]# ping 172.16.1.15
PING 172.16.1.15 (172.16.1.15) 56(84) bytes of data.
64 bytes from 172.16.1.15: icmp_seq=1 ttl=62 time=1.87 ms
64 bytes from 172.16.1.15: icmp_seq=2 ttl=62 time=1.84 ms
64 bytes from 172.16.1.15: icmp_seq=3 ttl=62 time=1.99 ms
64 bytes from 172.16.1.15: icmp_seq=4 ttl=62 time=1.85 ms
^C
--- 172.16.1.15 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 1.841/1.890/1.999/0.070 ms
[root@VM-1-12-centos ~]# traceroute 172.16.1.15
traceroute to 172.16.1.15 (172.16.1.15), 30 hops max, 60 byte packets
 1  10.0.1.11 (10.0.1.11)  0.329 ms  0.309 ms  0.297 ms
 2  lo0-100.NWRKNJ-VFTTP-316.verizon-gni.net (100.1.1.1)  1.813 ms  1.796 ms  1.793 ms
 3  172.16.1.15 (172.16.1.15)  2.081 ms  2.051 ms *
[root@VM-1-12-centos ~]#
```

Iperf 打流验证

iperf3 -c 10.0.1.12 -P 10

```
[  8]   8.00-9.00   sec  18.7 KBytes   153 Kbits/sec    8   4.01 KBytes
[ 10]   8.00-9.00   sec  0.00 Bytes  0.00 bits/sec    4   1.34 KBytes
[ 12]   8.00-9.00   sec  0.00 Bytes  0.00 bits/sec    2   1.34 KBytes
[ 14]   8.00-9.00   sec  0.00 Bytes  0.00 bits/sec   10   2.67 KBytes
[ 16]   8.00-9.00   sec  18.7 KBytes   153 Kbits/sec   12   1.34 KBytes
[ 18]   8.00-9.00   sec  21.4 KBytes   175 Kbits/sec    6   1.34 KBytes
[ 20]   8.00-9.00   sec  16.0 KBytes   131 Kbits/sec    8   1.34 KBytes
[ 22]   8.00-9.00   sec  9.35 KBytes  76.6 Kbits/sec   12   4.01 KBytes
[SUM]   8.00-9.00   sec   103 KBytes   843 Kbits/sec   77
- - - - - - - - - - - - - - - - - - - - - - - - -
[  4]   9.00-10.00  sec  21.4 KBytes   175 Kbits/sec   13   4.01 KBytes
[  6]   9.00-10.00  sec  0.00 Bytes  0.00 bits/sec    1   1.34 KBytes
[  8]   9.00-10.00  sec  0.00 Bytes  0.00 bits/sec    2   1.34 KBytes
[ 10]   9.00-10.00  sec  38.7 KBytes   317 Kbits/sec   11   2.67 KBytes
[ 12]   9.00-10.00  sec  44.1 KBytes   361 Kbits/sec    8   1.34 KBytes
[ 14]   9.00-10.00  sec  20.0 KBytes   164 Kbits/sec    5   1.34 KBytes
[ 16]   9.00-10.00  sec  0.00 Bytes  0.00 bits/sec    1   1.34 KBytes
[ 18]   9.00-10.00  sec  0.00 Bytes  0.00 bits/sec    5   1.34 KBytes
[ 20]   9.00-10.00  sec  0.00 Bytes  0.00 bits/sec    1   1.34 KBytes
[ 22]   9.00-10.00  sec  9.35 KBytes  76.6 Kbits/sec    8   2.67 KBytes
[SUM]   9.00-10.00  sec   134 KBytes  1.09 Mbits/sec   55
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Retr
[  4]   0.00-10.00  sec   200 KBytes   164 Kbits/sec   98             sender
[  4]   0.00-10.00  sec   155 KBytes   127 Kbits/sec                  receiver
[  6]   0.00-10.00  sec   186 KBytes   152 Kbits/sec   89             sender
[  6]   0.00-10.00  sec   150 KBytes   123 Kbits/sec                  receiver
[  8]   0.00-10.00  sec   167 KBytes   137 Kbits/sec   96             sender
[  8]   0.00-10.00  sec   128 KBytes   105 Kbits/sec                  receiver
[ 10]   0.00-10.00  sec   202 KBytes   165 Kbits/sec   92             sender
[ 10]   0.00-10.00  sec   150 KBytes   123 Kbits/sec                  receiver
[ 12]   0.00-10.00  sec   186 KBytes   152 Kbits/sec   90             sender
[ 12]   0.00-10.00  sec   132 KBytes   108 Kbits/sec                  receiver
[ 14]   0.00-10.00  sec   184 KBytes   151 Kbits/sec   83             sender
[ 14]   0.00-10.00  sec   140 KBytes   115 Kbits/sec                  receiver
[ 16]   0.00-10.00  sec   151 KBytes   124 Kbits/sec   96             sender
[ 16]   0.00-10.00  sec   106 KBytes  86.5 Kbits/sec                  receiver
[ 18]   0.00-10.00  sec   184 KBytes   151 Kbits/sec   96             sender
[ 18]   0.00-10.00  sec   148 KBytes   121 Kbits/sec                  receiver
[ 20]   0.00-10.00  sec   159 KBytes   130 Kbits/sec   84             sender
[ 20]   0.00-10.00  sec   119 KBytes  97.4 Kbits/sec                  receiver
[ 22]   0.00-10.00  sec  94.9 KBytes  77.7 Kbits/sec   67             sender
[ 22]   0.00-10.00  sec  76.1 KBytes  62.4 Kbits/sec                  receiver
[SUM]   0.00-10.00  sec  1.67 MBytes  1.40 Mbits/sec  891             sender
[SUM]   0.00-10.00  sec  1.27 MBytes  1.07 Mbits/sec                  receiver

iperf Done.
[root@VM-1-15-centos ~]#
```



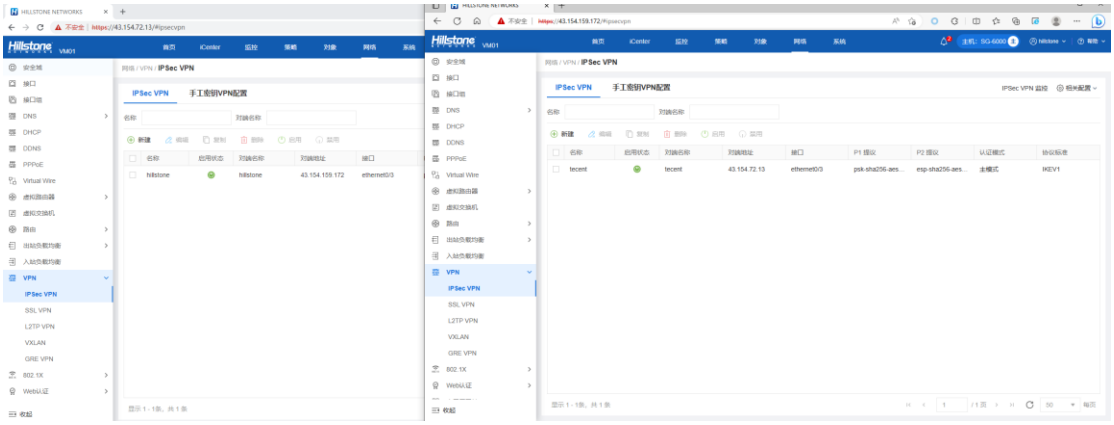
iperf3 -u -c 10.0.1.12 -P 10 -b 200M

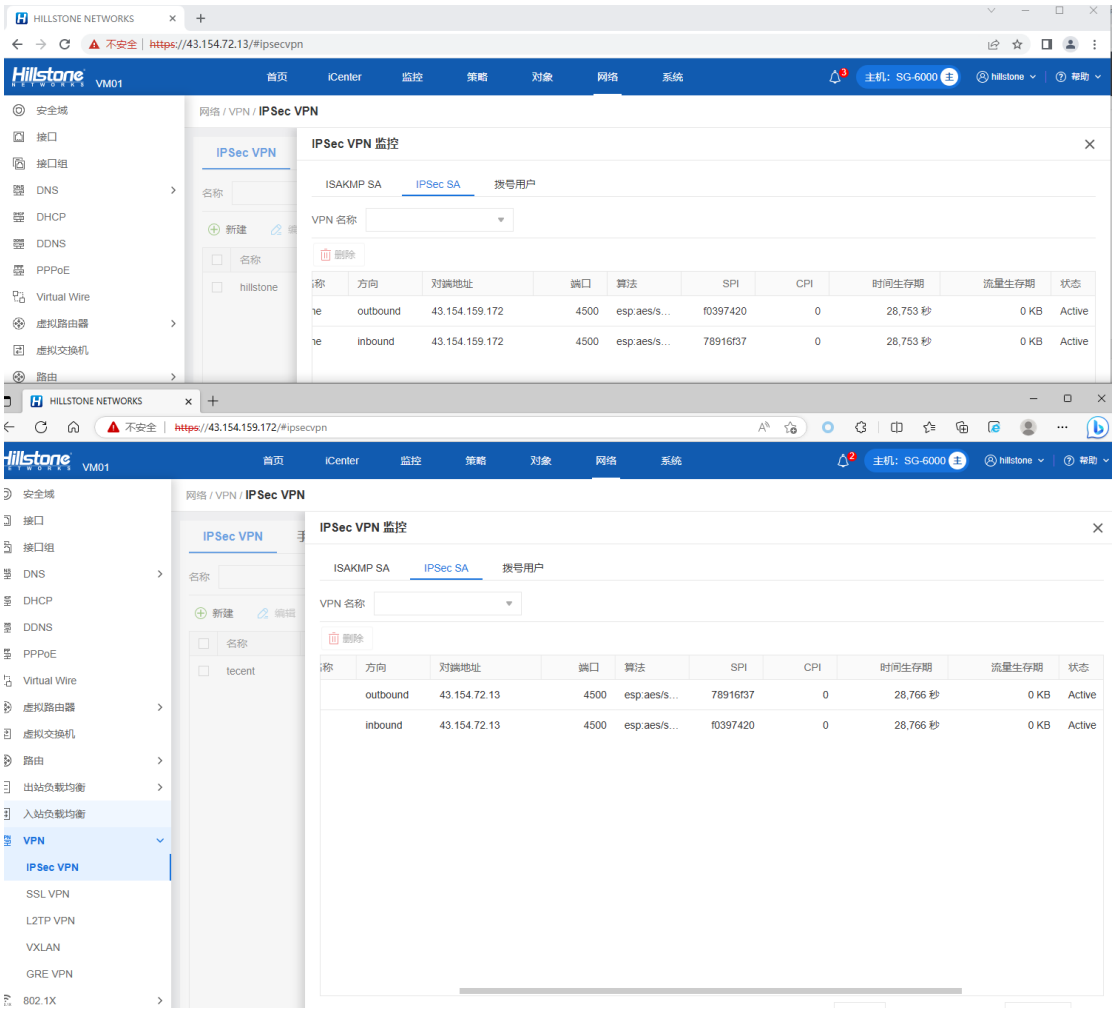
```
[  6]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[  8]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 10]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 12]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 14]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 16]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 18]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 20]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[ 22]   8.00-9.00   sec  23.7 MBytes   199 Mbits/sec  18183
[SUM]   8.00-9.00   sec   237 MBytes  1.99 Gbits/sec  181830
- - - - - - - - - - - - - - - - - - - - - - - - -
[  4]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[  6]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[  8]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 10]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 12]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 14]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 16]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 18]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 20]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[ 22]   9.00-10.00  sec  23.7 MBytes   198 Mbits/sec  18133
[SUM]   9.00-10.00  sec   237 MBytes  1.98 Gbits/sec  181330
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  4]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  16.365 ms  179717/179805 (1e+02%)
[  4] Sent 179805 datagrams
[  6]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  21.677 ms  181222/181328 (1e+02%)
[  6] Sent 181328 datagrams
[  8]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  17.723 ms  178333/178431 (1e+02%)
[  8] Sent 178431 datagrams
[ 10]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  24.363 ms  177192/177278 (1e+02%)
[ 10] Sent 177278 datagrams
[ 12]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  24.609 ms  181554/181656 (1e+02%)
[ 12] Sent 181656 datagrams
[ 14]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  29.349 ms  180623/180723 (1e+02%)
[ 14] Sent 180723 datagrams
[ 16]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  21.663 ms  181804/181916 (1e+02%)
[ 16] Sent 181916 datagrams
[ 18]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  14.118 ms  182069/182172 (1e+02%)
[ 18] Sent 182172 datagrams
[ 20]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  19.704 ms  179514/179625 (1e+02%)
[ 20] Sent 179625 datagrams
[ 22]   0.00-10.00  sec   238 MBytes   200 Mbits/sec  24.433 ms  179647/179759 (1e+02%)
[ 22] Sent 179759 datagrams
[SUM]   0.00-10.00  sec  2.32 GBytes  2.00 Gbits/sec  21.400 ms  1801675/1802693 (1e+02%)

iperf Done.
[root@VM-1-15-centos ~]#
```

```
[ 12]   8.00-9.00   sec  12.0 KBytes  98.5 Kbits/sec  21.258 ms  19597/19606 (1e+02%)
[ 14]   8.00-9.00   sec  9.35 KBytes  76.6 Kbits/sec  27.711 ms  16094/16101 (1e+02%)
[ 16]   8.00-9.00   sec  9.35 KBytes  76.6 Kbits/sec  22.714 ms  20426/20433 (1e+02%)
[ 18]   8.00-9.00   sec  16.0 KBytes   131 Kbits/sec  13.882 ms  20169/20181 (1e+02%)
[ 20]   8.00-9.00   sec  13.4 KBytes   109 Kbits/sec  24.982 ms  16027/16037 (1e+02%)
[ 22]   8.00-9.00   sec  16.0 KBytes   131 Kbits/sec  16.073 ms  24253/24265 (1e+02%)
[SUM]   8.00-9.00   sec   123 KBytes  1.01 Mbits/sec  20.040 ms  193864/193956 (1e+02%)
- - - - - - - - - - - - - - - - - - - - - - - - -
[  5]   9.00-10.00  sec  9.35 KBytes  76.6 Kbits/sec  15.858 ms  20022/20029 (1e+02%)
[  6]   9.00-10.00  sec  13.4 KBytes   109 Kbits/sec  22.091 ms  17882/17892 (1e+02%)
[  8]   9.00-10.00  sec  10.7 KBytes  87.6 Kbits/sec  17.723 ms  18860/18868 (1e+02%)
[ 10]   9.00-10.00  sec  14.7 KBytes   120 Kbits/sec  24.363 ms  16902/16913 (1e+02%)
[ 12]   9.00-10.00  sec  9.35 KBytes  76.6 Kbits/sec  25.216 ms  11511/11518 (1e+02%)
[ 14]   9.00-10.00  sec  14.7 KBytes   120 Kbits/sec  26.700 ms  21144/21155 (1e+02%)
[ 16]   9.00-10.00  sec  16.0 KBytes   131 Kbits/sec  24.581 ms  17963/17975 (1e+02%)
[ 18]   9.00-10.00  sec  4.01 KBytes  32.8 Kbits/sec  11.595 ms  17978/17981 (1e+02%)
[ 20]   9.00-10.00  sec  16.0 KBytes   131 Kbits/sec  17.567 ms  18872/18884 (1e+02%)
[ 22]   9.00-10.00  sec  13.4 KBytes   109 Kbits/sec  22.679 ms  19068/19078 (1e+02%)
[SUM]   9.00-10.00  sec   122 KBytes   996 Kbits/sec  20.837 ms  180202/180293 (1e+02%)
- - - - - - - - - - - - - - - - - - - - - - - - -
[  5]  10.00-10.23  sec  1.34 KBytes  48.7 Kbits/sec  16.365 ms  3669/3670 (1e+02%)
[  6]  10.00-10.23  sec  4.01 KBytes   146 Kbits/sec  21.677 ms  5011/5014 (1e+02%)
[  8]  10.00-10.23  sec  0.00 Bytes  0.00 bits/sec  17.723 ms  0/0 (0%)
[ 10]  10.00-10.23  sec  0.00 Bytes  0.00 bits/sec  24.363 ms  0/0 (0%)
[ 12]  10.00-10.23  sec  1.34 KBytes  48.7 Kbits/sec  24.609 ms  9097/9098 (1e+02%)
[ 14]  10.00-10.23  sec  1.34 KBytes  48.7 Kbits/sec  29.349 ms  1190/1191 (1e+02%)
[ 16]  10.00-10.23  sec  2.67 KBytes  97.3 Kbits/sec  21.663 ms  3220/3222 (1e+02%)
[ 18]  10.00-10.23  sec  6.68 KBytes   243 Kbits/sec  14.118 ms  2896/2901 (1e+02%)
[ 20]  10.00-10.23  sec  1.34 KBytes  48.7 Kbits/sec  19.704 ms  1514/1515 (1e+02%)
[ 22]  10.00-10.23  sec  1.34 KBytes  48.7 Kbits/sec  24.433 ms  271/272 (1e+02%)
[SUM]  10.00-10.23  sec  20.0 KBytes   730 Kbits/sec  21.400 ms  26868/26883 (1e+02%)
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  5]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  16.365 ms  179717/179805 (1e+02%)
[  6]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  21.677 ms  181222/181328 (1e+02%)
[  8]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  17.723 ms  178333/178431 (1e+02%)
[ 10]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  24.363 ms  177192/177278 (1e+02%)
[ 12]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  24.609 ms  181554/181656 (1e+02%)
[ 14]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  29.349 ms  180623/180723 (1e+02%)
[ 16]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  21.663 ms  181804/181916 (1e+02%)
[ 18]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  14.118 ms  182069/182172 (1e+02%)
[ 20]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  19.704 ms  179514/179625 (1e+02%)
[ 22]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  24.433 ms  179647/179759 (1e+02%)
[SUM]   0.00-10.23  sec  0.00 Bytes  0.00 bits/sec  21.400 ms  1801675/1802693 (1e+02%)
-----------------------------------------------------------
Server listening on 5201
-----------------------------------------------------------
```

IPSec VPN 验证

配置参考：https://kb.hillstonenet.com/cn/ipsecvpn-configuration-collection/





测试数据连通性

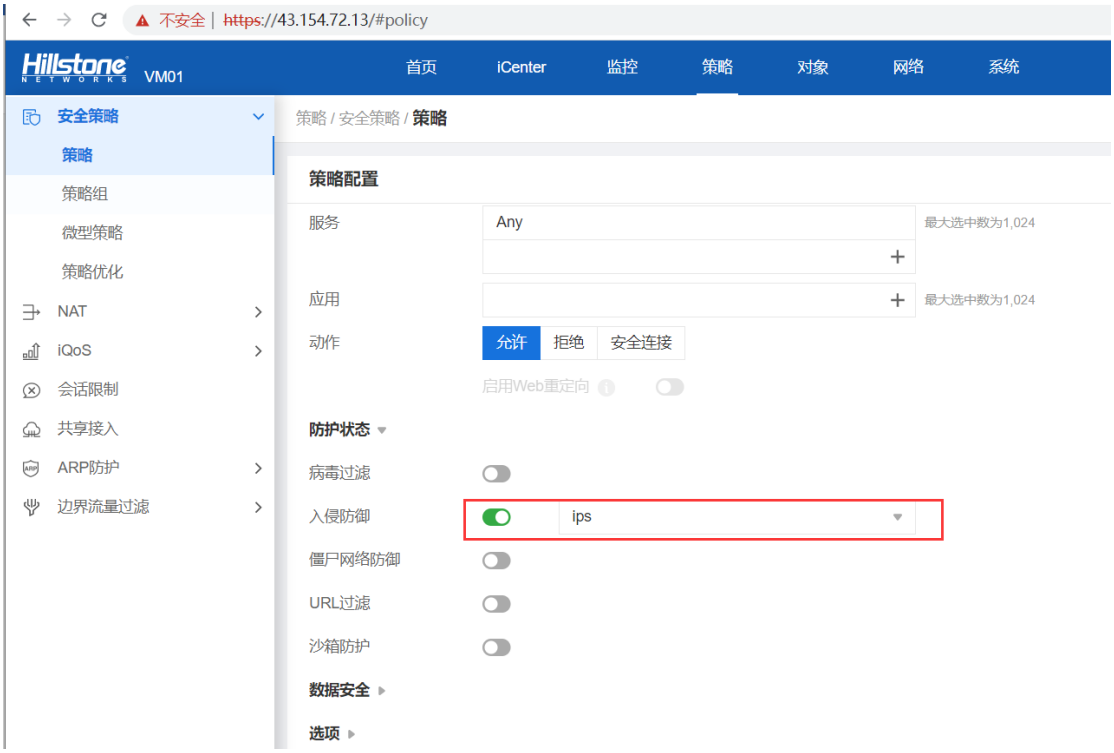
```
=========================
Interface name        IP address/mask    Zone name       H A L P MAC address
Description
-------------------------------------------------------------------------------
-------------------------
loopback1             22.22.22.22/32     trust           U U U U --------------
------
vswitchif1            0.0.0.0/0          NULL            D U D D 001c.5414.ff13
------
ethernet0/0           10.0.0.2/24        mgmt            U U U U 5254.0009.b54a
------
ethernet0/1           10.0.1.11/24       trust           U U U U 2090.6f81.6256
------
ethernet0/2           0.0.0.0/0          HA              U U U D 2090.6f6f.75af
------
ethernet0/3           10.0.3.6/24        untrust         U U U U 2090.6fb7.b1f8
------
tunnel1               100.1.1.2/24       VPNHub          U U U U 001c.5414.ff42
------
tunnel2               0.0.0.0/0          VPNHub          U U U D 001c.5414.ff43
------
===============================================================================
=========================
SG-6000(M)#
```

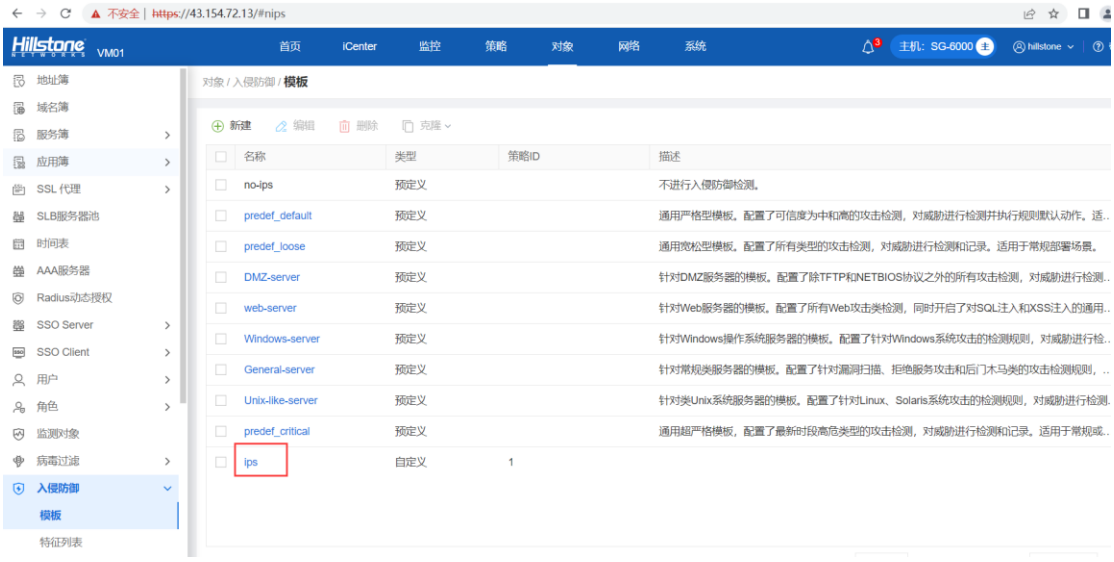
```
SG-6000(M)# ping 11.11.11.11 source loopback1
Sending ICMP packets to 11.11.11.11
From loopback1
   Seq    ttl    time(ms)
   1      128    1.74
   2      128    1.62
   3      128    1.76
   4      128    1.70
   5      128    1.64

statistics:
5 packets sent, 5 received, 0% packet loss, time 4004ms
rtt min/avg/max/mdev = 1.627/1.696/1.761/0.065 ms
SG-6000(M)#
```

```
========================
Interface name       IP address/mask    Zone name       H A L P MAC address
Description
------------------------------------------------------------------------------
------------------------
loopback1            11.11.11.11/32     trust           U U U U --------------
------
vswitchif1           0.0.0.0/0          NULL            D U D D 001c.54d7.8613
------
ethernet0/0          172.16.0.3/24      mgmt            U U U U 5254.009e.144a
------
ethernet0/1          172.16.1.12/24     trust           U U U U 2090.6f7d.7732
------
ethernet0/2          0.0.0.0/0          HA              U U U D 2090.6faa.72b9
------
ethernet0/3          172.16.3.7/24      untrust         U U U U 2090.6f21.6db8
------
tunnel1              100.1.1.1/24       VPNHub          U U U U 001c.54d7.8642
------
tunnel2              0.0.0.0/0          VPNHub          U U U D 001c.54d7.8643
------
==============================================================================
========================
SG-6000(M)#
```

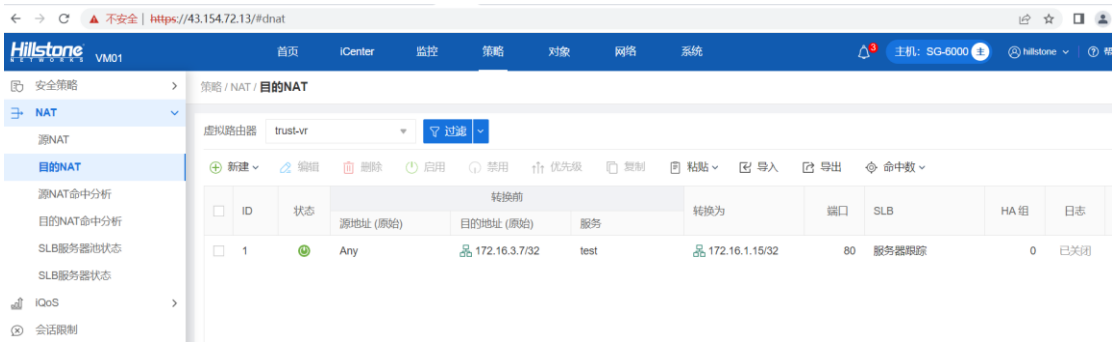
```
SG-6000(M)# ping 22.22.22.22 source loopback1
Sending ICMP packets to 22.22.22.22
From loopback1
   Seq    ttl    time(ms)
   1      128    1.78
   2      128    1.68
   3      128    1.67
   4      128    1.72
   5      128    1.73

statistics:
5 packets sent, 5 received, 0% packet loss, time 4005ms
rtt min/avg/max/mdev = 1.677/1.721/1.782/0.058 ms
SG-6000(M)#
```

IPS 功能验证

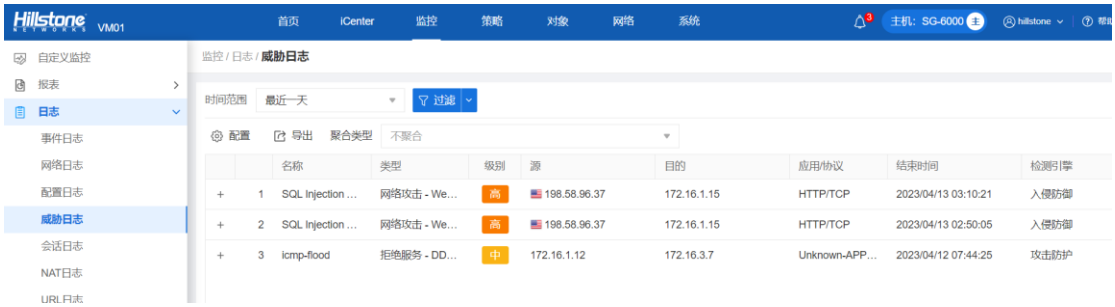




配置 DNAT 映射表：外网访问内网服务器 80 端口


不安全 | https://43.154.72.13/#dnat
Hillstone VM01
首页
iCenter
监控
策略
对象
网络
系统
主机: SG-6000
hillstone
安全策略
NAT
源NAT
目的NAT
源NAT命中分析
目的NAT命中分析
SLB服务器池状态
SLB服务器状态
iQoS
会话限制
策略 / NAT / 目的NAT
虚拟路由器
trust-vr
过滤
新建
编辑
删除
启用
禁用
优先级
复制
粘贴
导入
导出
命中数
ID
状态
转换前
源地址 (原始)
目的地址 (原始)
服务
转换为
端口
SLB
HA 组
日志
1
Any
172.16.3.7/32
test
172.16.1.15/32
80
服务器限踪
0
已关闭

验证 sql 注入攻击


Hillstone VM01
首页
iCenter
监控
策略
对象
网络
系统
主机: SG-6000
hillstone
自定义监控
报表
日志
事件日志
网络日志
配置日志
威胁日志
会话日志
NAT日志
URL日志
监控 / 日志 / 威胁日志
时间范围
最近一天
过滤
配置
导出
聚合类型
不聚合
名称
类型
级别
源
目的
应用/协议
结束时间
检测引擎
1 SQL Injection ... 网络攻击 - We... 高 198.58.96.37 172.16.1.15 HTTP/TCP 2023/04/13 03:10:21 入侵防御
2 SQL Injection ... 网络攻击 - We... 高 198.58.96.37 172.16.1.15 HTTP/TCP 2023/04/13 02:50:05 入侵防御
3 icmp-flood 拒绝服务 - DD... 中 172.16.1.12 172.16.3.7 Unknown-APP... 2023/04/12 07:44:25 攻击防护