

## 组网及说明

### 1 配置需求或说明

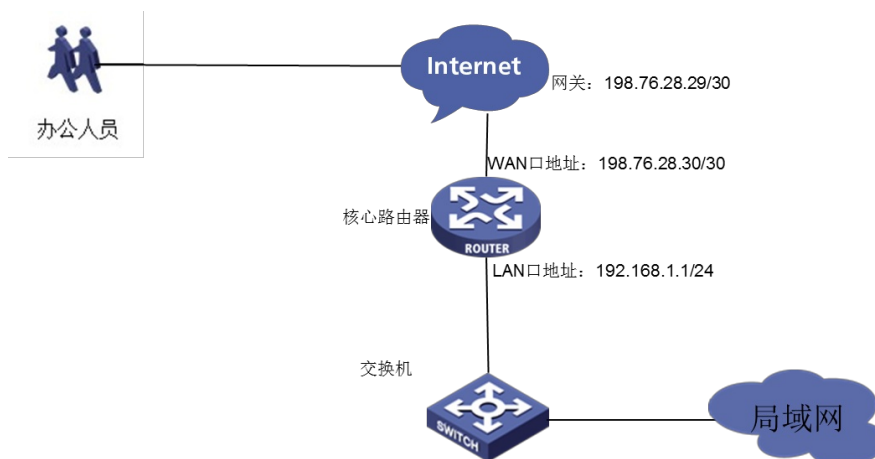
#### 1.1 适用产品系列

本案例适用于如ICG5000G、ICG5000T、ICG6000系列的路由器。

#### 1.2 配置需求及实现的效果

路由器采用固定IP地址的方式部署在公司互联网出口，运营商提供的IP地址为198.76.28.30/30，内网地址为192.168.1.1/24。外网用户为了访问公司的内网资源，出于安全考虑采用l2tp over ipsec的方式拨入公司内网进行访问。

## 2 组网图



## 配置步骤

### 3 配置步骤

#### 3.1 配置路由器基本上网

#路由器基本上网配置省略，具体设置步骤请参考“2.2.2 路由器外网使用固定IP地址上网配置方法”章节中“MSR830-WiNet系列路由器基本上网（静态IP）WEB配置（V7）”案例

#### 3.2 配置路由器

#开启L2TP功能

```
system-view
```

```
[H3C]l2tp enable
```

#创建地址池

```
[H3C]ip pool 1 192.168.10.2 192.168.10.200
```

#创建一个虚模板，指定地址池

```
[H3C]interface Virtual-Template1
```

```
[H3C-Virtual-Template1] ppp authentication-mode chap domain system
```

```
[H3C-Virtual-Template1]remote address pool 1
```

```
[H3C-Virtual-Template1]ip address 192.168.10.1 24
```

```
[H3C-Virtual-Template1]quit
```

#创建l2tp组

```
[H3C]l2tp-group 1 mode lns
```

```
[H3C-l2tp1] allow l2tp virtual-template 1
```

```
[H3C-l2tp1]undo tunnel authentication
```

```
[H3C-l2tp1]quit
```

#创建本地用户

```
[H3C]local-user 123 class network
```

```
[H3C-luser-network-123]password simple 123456
```

```
[H3C-luser-network-123]service-type ppp
```

```
[H3C-luser-network-123]quit
```

#创建多个ike安全提议，采用不同的加密算法和验证算法

```
[H3C]ike proposal 1
```

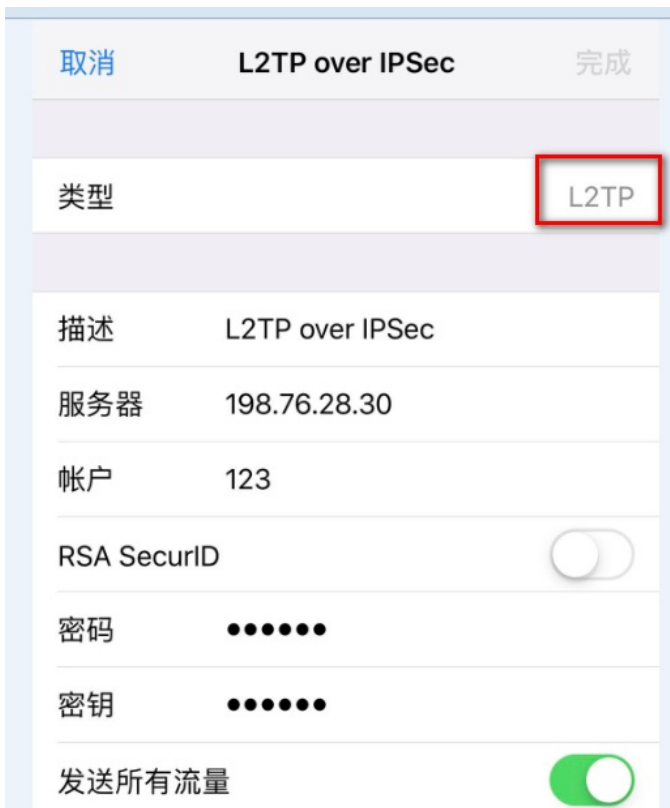
```
[H3C-ike-proposal-1]encryption-algorithm aes-cbc-128
```

```

[H3C-ike-proposal-1]authentication-algorithm md5
[H3C-ike-proposal-1]dh group2
[H3C]ike proposal 2
[H3C-ike-proposal-2]encryption-algorithm 3des-cbc
[H3C-ike-proposal-2]authentication-algorithm md5
[H3C-ike-proposal-2]dh group2
[H3C]ike proposal 3
[H3C-ike-proposal-3]encryption-algorithm 3des-cbc
[H3C-ike-proposal-3]dh group2
[H3C]ike proposal 4
[H3C-ike-proposal-4]encryption-algorithm aes-cbc-256
[H3C-ike-proposal-4]dh group2
[H3C]ike proposal 5
[H3C-ike-proposal-5]dh group2
[H3C]ike proposal 6
[H3C-ike-proposal-6]encryption-algorithm aes-cbc-192
[H3C-ike-proposal-6]dh group2
#配置ike keychain, 配置对端地址为0.0.0.0, 预共享密钥为123456
[H3C]ike keychain 1
[H3C-ike-keychain-1]pre-shared-key address 0.0.0.0 0 key simple 123456
#配置ike profile, 引用ike keychain和ike安全提议, 本端公网地址为198.76.28.30
[H3C]ike profile 1
[H3C-ike-profile-1]keychain 1
[H3C-ike-profile-1]exchange-mode aggressive
[H3C-ike-profile-1]local-identity address 198.76.28.30
[H3C-ike-profile-1]match remote identity address 0.0.0.0 0.0.0.0
[H3C-ike-profile-1]proposal 1 2 3 4 5 6
#配置多个ipsec安全提议, 采用不同的验证算法和加密算法
[H3C]ipsec transform-set 1
[H3C-ipsec-transform-set-1]encapsulation-mode transport
[H3C-ipsec-transform-set-1]esp encryption-algorithm aes-cbc-128
[H3C-ipsec-transform-set-1]esp authentication-algorithm sha1
[H3C]ipsec transform-set 2
[H3C-ipsec-transform-set-2]encapsulation-mode transport
[H3C-ipsec-transform-set-2]esp encryption-algorithm aes-cbc-256
[H3C-ipsec-transform-set-2]esp authentication-algorithm sha1
[H3C]ipsec transform-set 3
[H3C-ipsec-transform-set-3]encapsulation-mode transport
[H3C-ipsec-transform-set-3]esp encryption-algorithm 3des-cbc
[H3C-ipsec-transform-set-3]esp authentication-algorithm sha1
[H3C]ipsec transform-set 4
[H3C-ipsec-transform-set-4]encapsulation-mode transport
[H3C-ipsec-transform-set-4]esp encryption-algorithm des-cbc
[H3C-ipsec-transform-set-4]esp authentication-algorithm sha1
[H3C]ipsec transform-set 5
[H3C-ipsec-transform-set-5]encapsulation-mode transport
[H3C-ipsec-transform-set-5]esp encryption-algorithm aes-cbc-192
[H3C-ipsec-transform-set-5]esp authentication-algorithm sha1
[H3C]ipsec transform-set 6
[H3C-ipsec-transform-set-6]encapsulation-mode transport
#配置一个名字为1, 序号为1的安全策略模板, 引用ike profile和ipsec安全提议
[H3C]ipsec policy-template 1 1
[H3C-ipsec-policy-template-1-1]
[H3C-ipsec-policy-template-1-1]transform-set 1 2 3 4 5 6
[H3C-ipsec-policy-template-1-1]ike-profile 1
#引用ipsec安全策略模板, 创建ipsec安全策略
[H3C]ipsec policy 1 1 isakmp template 1
#在公网口调用ipsec安全策略
[H3C]interface GigabitEthernet 0/0
[H3C-GigabitEthernet0/0]ipsec apply policy 1

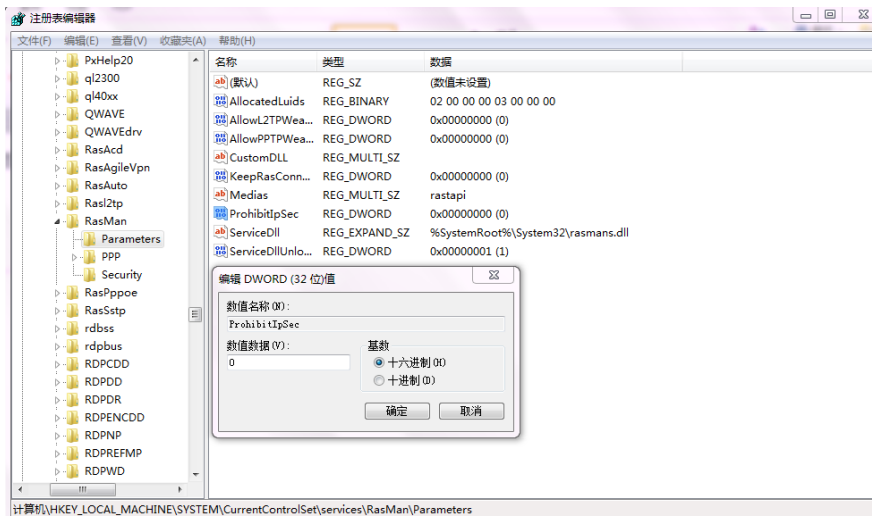
```

### 3.3 手机侧配置

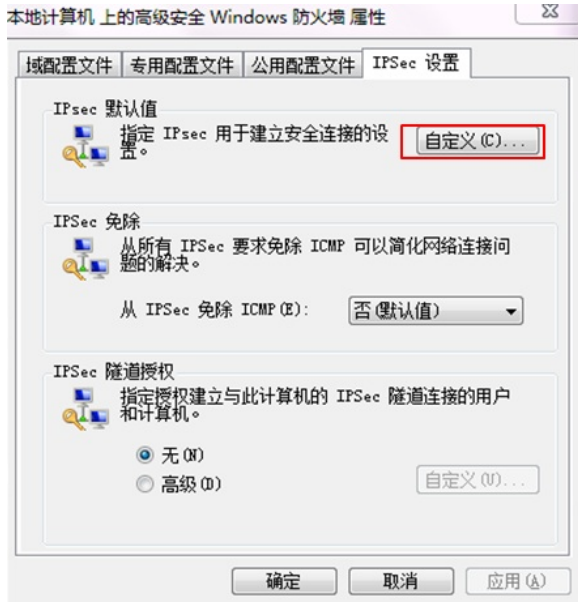


### 3.4 Window7电脑侧配置

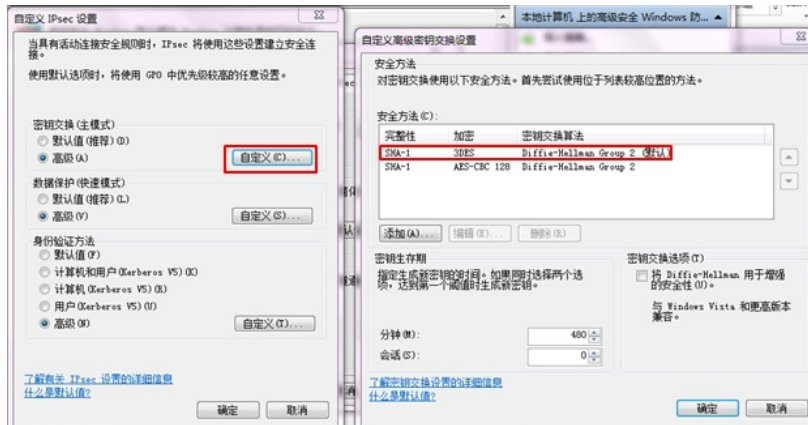
1. 在命令行模式下执行regedit命令，弹出“注册表编辑器”对话框。在左侧注册表项目中逐级找到：HK EY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\RasMan\Parameters，单击Parameters参数，然后双击ProhibitIpSec，把值改为0。



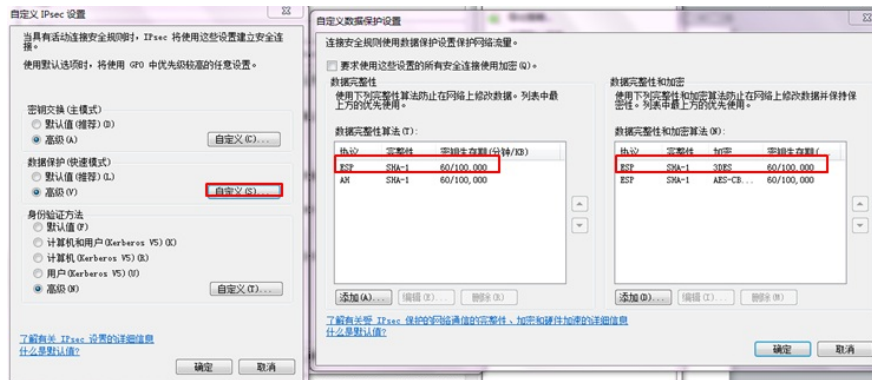
2. 打开控制面板/系统与安全/windows防火墙高级设置/属性/IPSec设置，如图



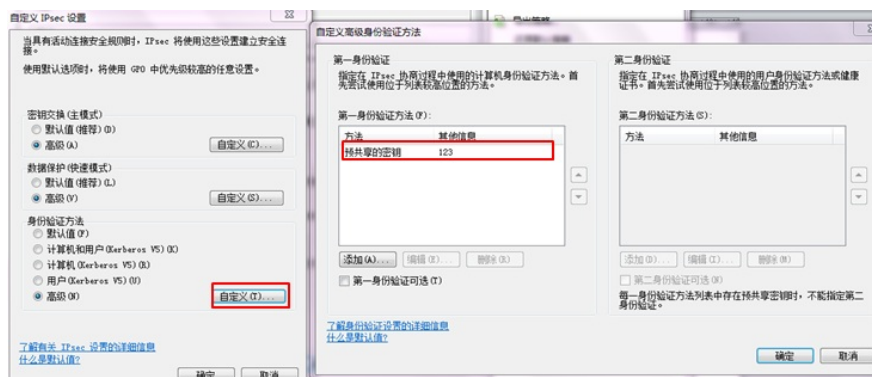
#选择SHA-1, 3DES, Group2



选择加密参数



选择预共享密钥，数值需要与IKE 配置中的数值相同，然后确定，应用

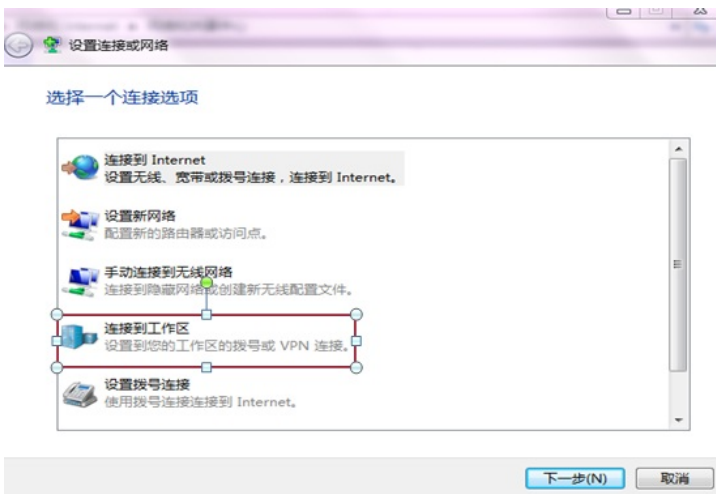


配置好终端之后一定要重新启动电脑

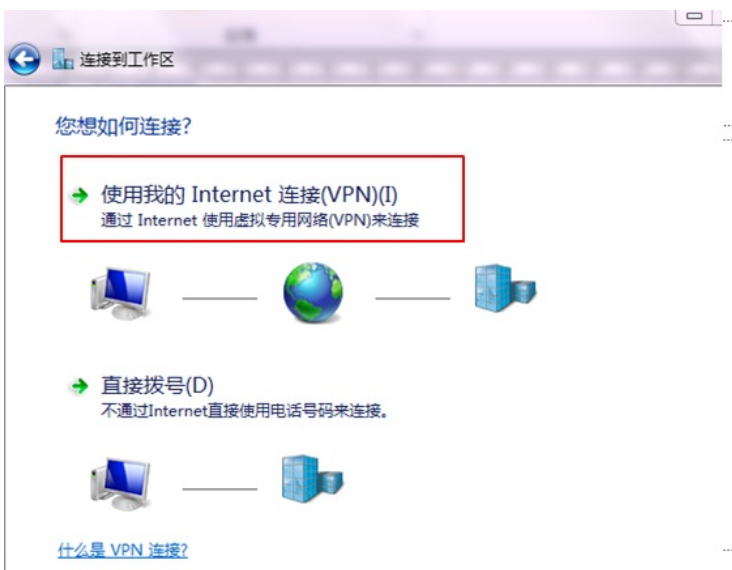
### 3. 打开window7自带客户端设置连接，选择新建连接



选择连接到工作区

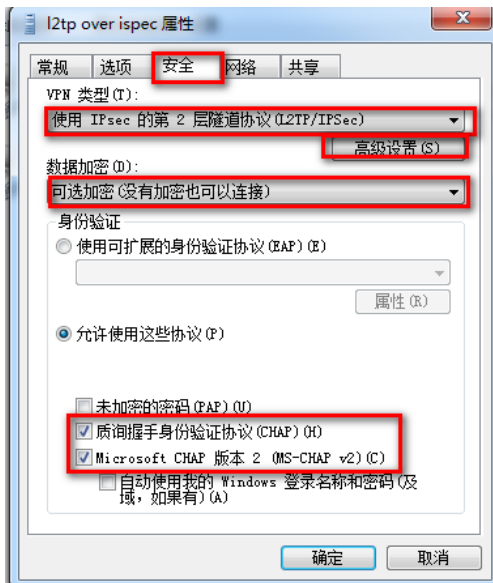
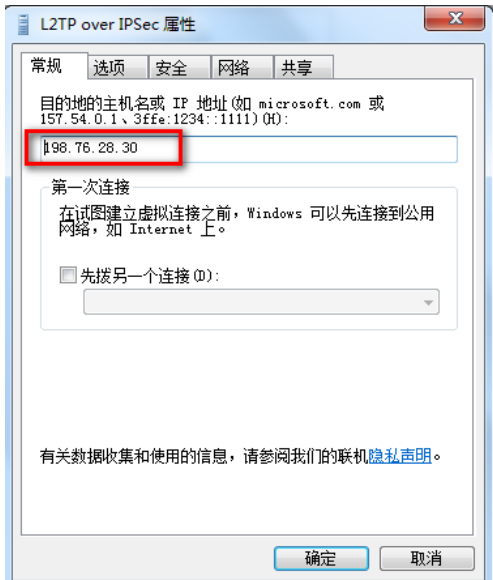


选择设置Internet连接

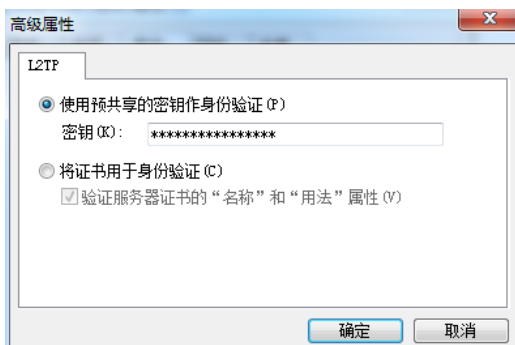




右击VPN连接点属性



使用密钥：也就是ike的共享密钥：如果选证书可以拨号成功只是触发不了ipsec，填上错误的密码拨号不成功（即使写l2tp的隧道密码也不行）。





配置关键点