

实验四 用 Windows2003 实现网关-网关 VPN

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一、实验目的

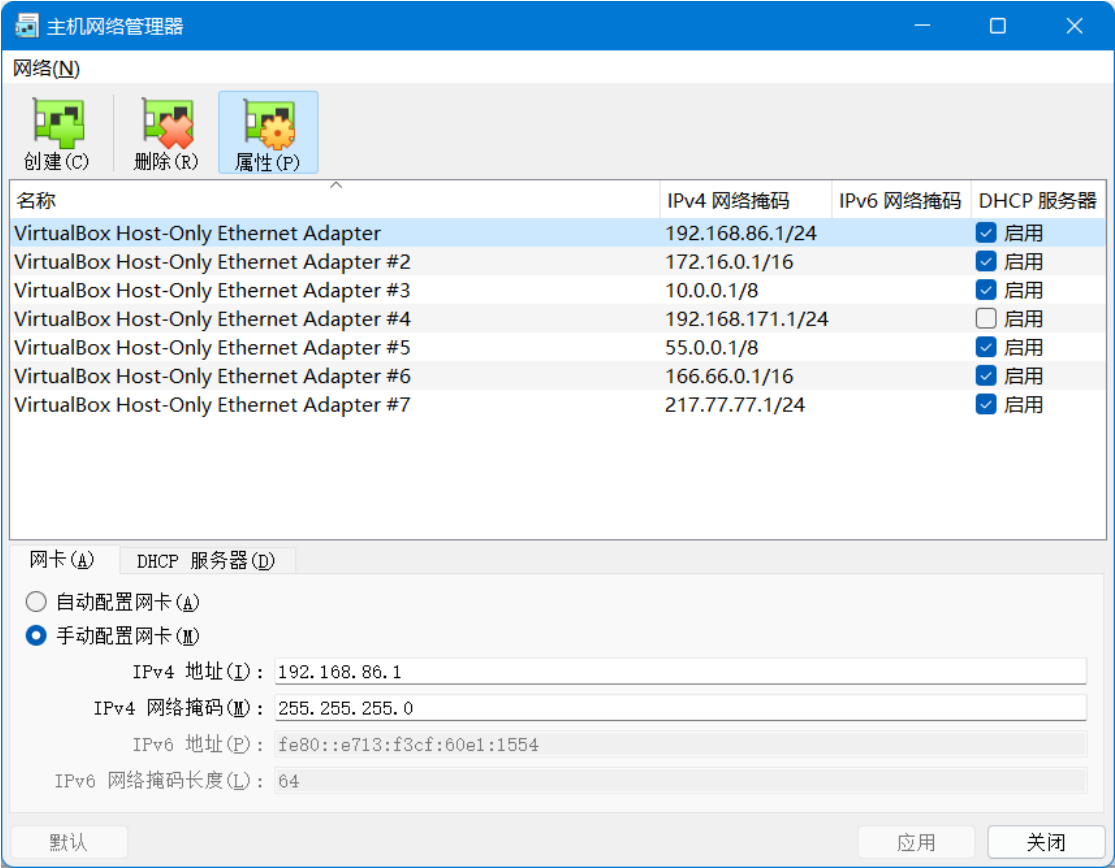
用 IPsec 隧道方式配置网关-网关 VPN，连接被 Internet 隔开的两个局域网(VMnet1 和 VMnet3)，使之进行安全通信，实现信息的保密和完整。

二、实验内容

将路由器、Client A 及 ClientB 的 IPv4 地址的第 4 个点分十进制数（如 192.168.86.202 的第 4 个点分十进制数为 202）改成学号的最后 3 位数字%60（进行“模 60”运算），其他部分的 IP 地址也可能需要修改以避免虚拟机的 IP 地址重复。

三、实验过程

1. 设置VirtualBox网络配置



2. 手动配置路由器，客户端，服务器ip地址

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C:\work>ipconfig

Windows IP Configuration

Ethernet adapter net6:

    Connection-specific DNS Suffix  . : 
    IP Address. . . . .               : 55.55.55.203
    Subnet Mask . . . . .             : 255.0.0.0
    Default Gateway . . . . .         : 55.55.55.17

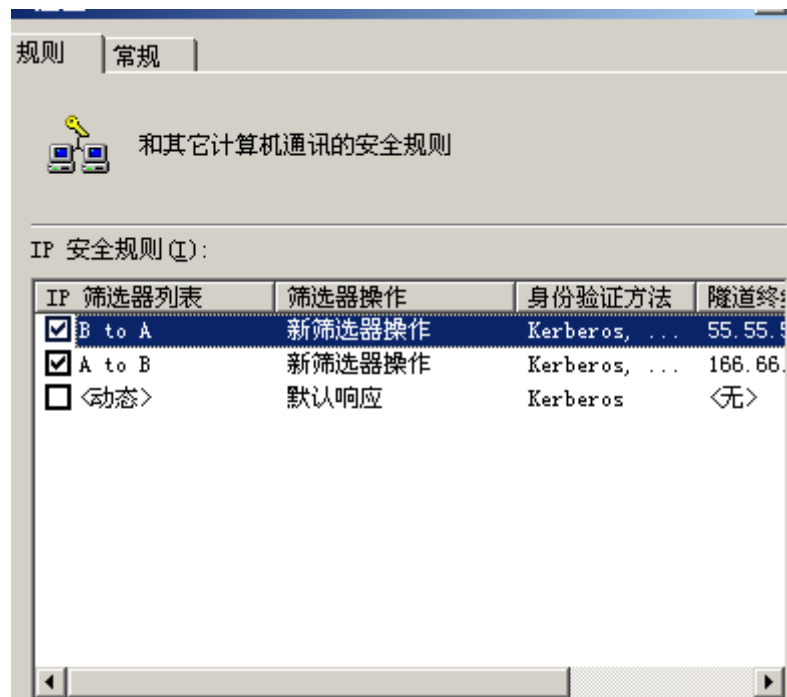
Ethernet adapter net1:

    Connection-specific DNS Suffix  . : 
    IP Address. . . . .               : 192.168.86.203
    Subnet Mask . . . . .             : 255.255.255.0
    Default Gateway . . . . .         : 

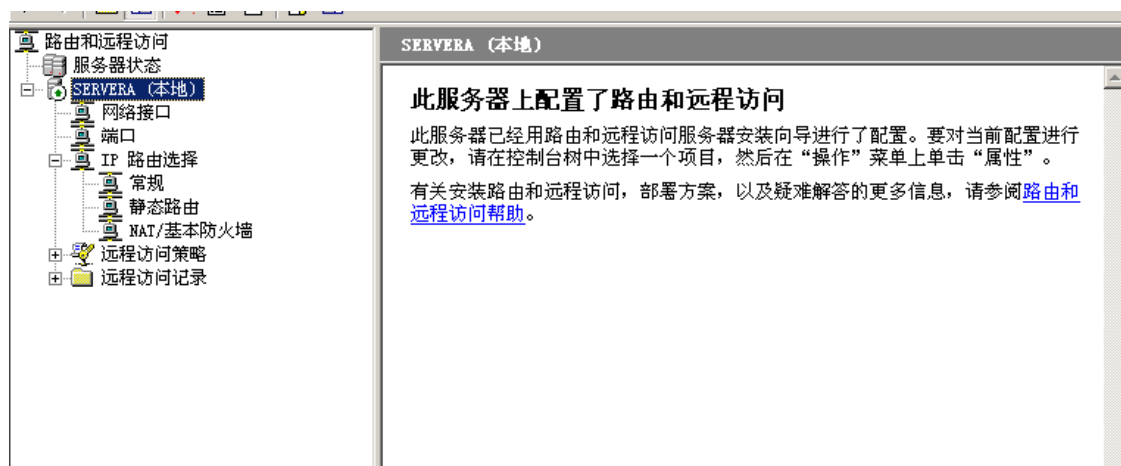
C:\work>

```

3. 配置IPSec策略



4. 配置远程访问



5. ping测试

Filter:							Expression...		Clear	Apply	Save
No.	Time	Source	Destination	Protocol	Length	Info					
1	0.00000000	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
2	0.00213600	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
3	-0.0000290	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
4	0.00215800	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
5	1.00925200	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
6	1.01142200	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
7	1.00922200	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
8	1.01144500	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
9	2.03045000	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
10	2.03270500	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
11	2.03039100	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
12	2.03274600	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
13	3.05154200	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
14	3.05361300	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					
15	3.05151200	55.55.55.203	166.66.66.213	ESP	126	ESP (SPI=0x9226f422)					
16	3.05363800	166.66.66.213	55.55.55.203	ESP	126	ESP (SPI=0x9492495a)					

<div> <div>+</div> <div>Frame 1: 126 bytes on wire (1008 bits), 126 bytes captured (1008 bits) on interface 0</div> </div> <div> <div>+</div> <div>Ethernet II, Src: CadmusCo_c3:67:49 (08:00:27:c3:67:49), Dst: CadmusCo_70:4e:fa (08:00:27:70:4e:fa)</div> </div> <div> <div>+</div> <div>Internet Protocol Version 4, Src: 55.55.55.203 (55.55.55.203), Dst: 166.66.66.213 (166.66.66.213)</div> </div> <div> <div>+</div> <div>Encapsulating Security Payload</div> </div>
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四、实验收获

- 对路由器的工作原理有了更清晰的认识
- 对vpn网关有了更深的理解