

# PowerShell使用方式

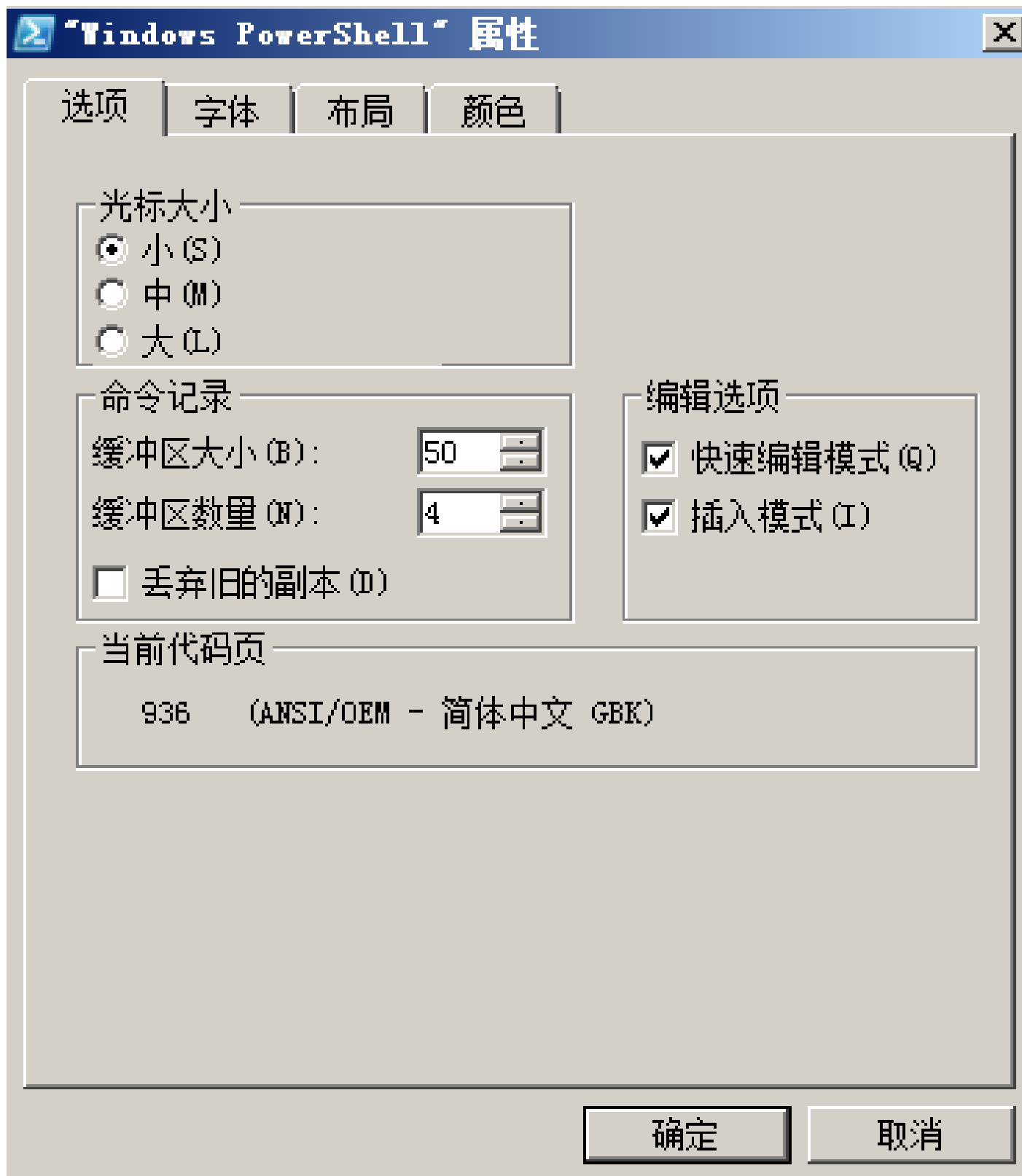
Powershell 是运行在windows机器上实现系统和应用程序管理自动化的命令行脚本环境。你可以把它看成是命令行提示符cmd.exe的扩充，不对，应当是颠覆。 powershell需要.NET环境的支持，同时支持.NET对象。微软之所以将Powershell 定位为Power，并不是夸大其词，因为它完全支持对象。其可读性，易用性，可以位居当前所有shell之首。 当前powershell有四版本，分别为1.0，2.0，3.0,4.0

如果您的系统是window7或者Windows Server 2008，那么PowerShell 2.0已经内置了，可以升级为3.0，4.0。如果您的系统是Windows 8 或者Windows server 2012，那么PowerShell 3.0已经内置了，可以升级为4.0。如果您的系统为Windows 8.1或者Windows server 2012 R2，那默认已经是4.0了。

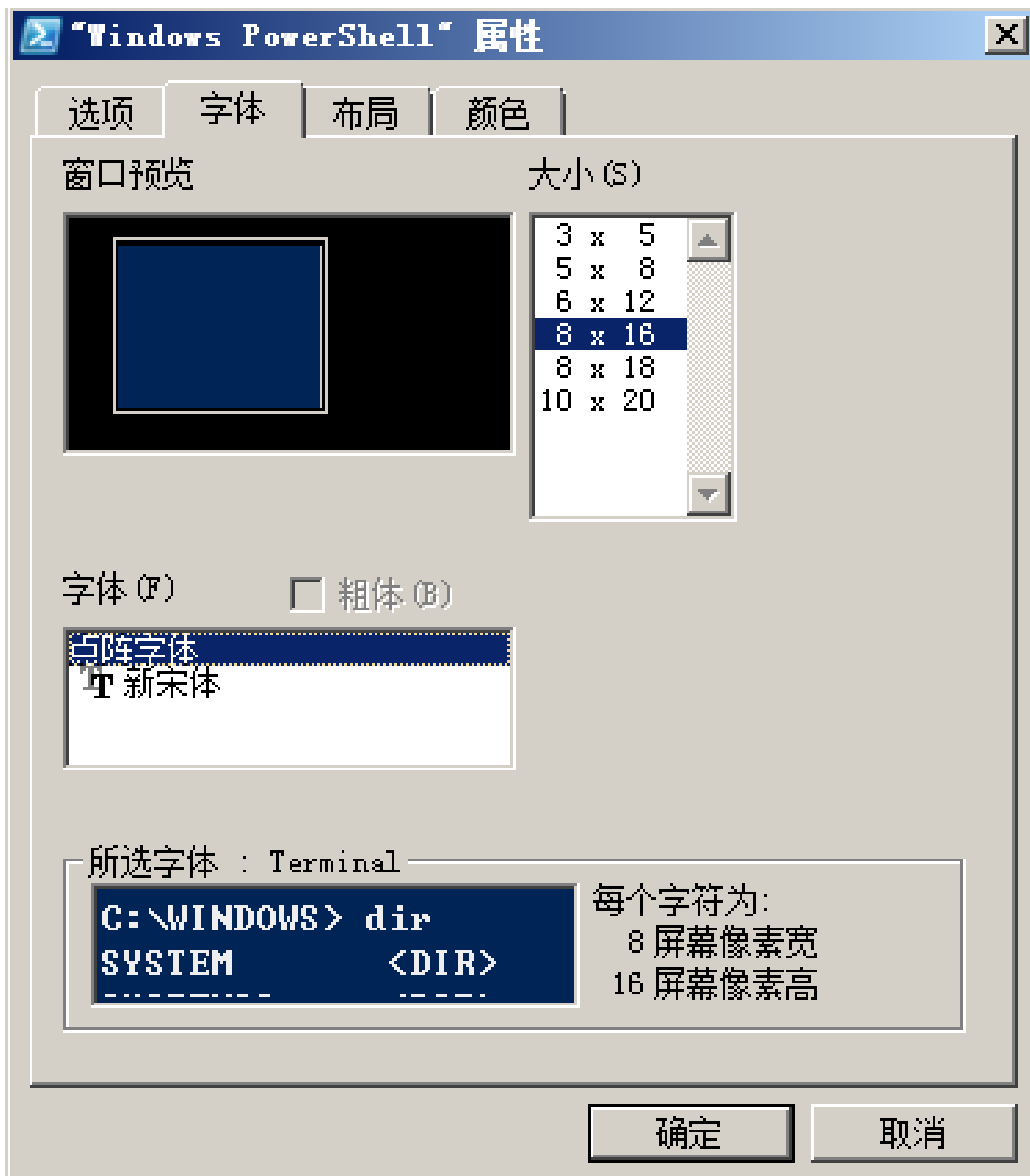
## powershell控制台

右击标题栏选择“ 属性” 弹出powershell控制台对话框。在这里有四个选项卡：选项、字体、布局和颜色。

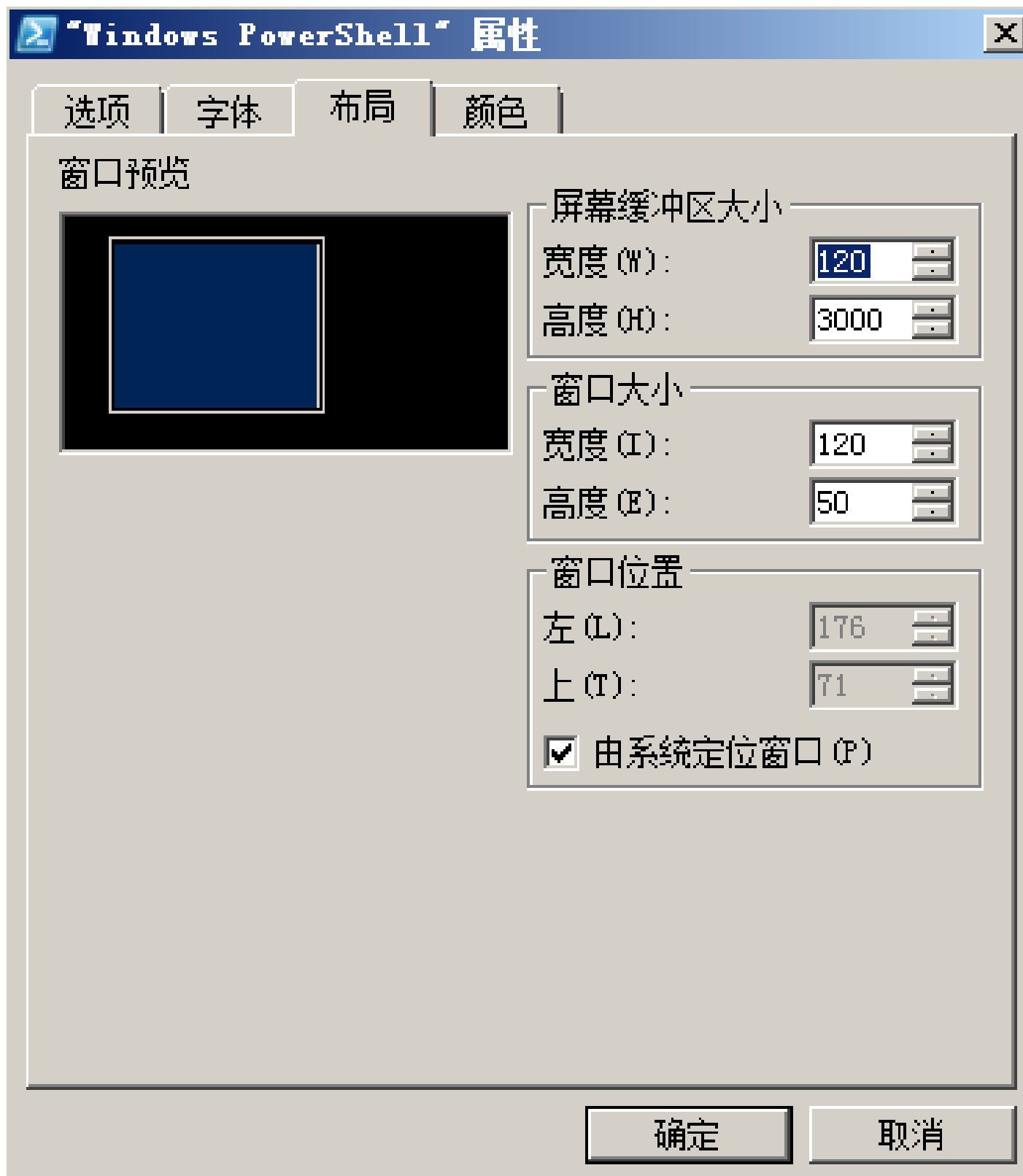
1、【选项】设置光标，历史记录，编辑模式的切换



2、【字体】设置字体的名称和大小



3、【布局】设置窗口的缓冲区、窗口的大小、窗口起始坐标



4、【颜色】设置屏幕和对话框的背景色和前景色。



## 快捷键

ALT+F7	清除命令的历史记录
PgUp PgDn	显示当前会话的第一个命令和最后一个命令

Enter	执行当前命令
End	将光标移至当前命令的末尾
Del	从右开始删除输入的命令字符
Esc	清空当前命令行
F2	自动补充历史命令至指定字
F4	删除命令行至光标右边指定字符处
F7	对话框显示命令行历史记录
F8	检索包含指定字符的命令行历史记录
F9	根据命令行的历史记录编号选择命令，历史记录编号可以通过F7查看
左/右方向键	左右移动光标
上/下方向键	切换命令行的历史记录
Home	光标移至命令行最左端
Backspace	从右删除命令行字符
Ctrl+C	取消正在执行的命令
Ctrl+左/右方向键	在单词之间移动光标
Ctrl+Home	删除光标最左端的所有字符
Tab	自动补齐命令或者文件名

## 管道和重定向

例如通过ls获取当前目录的所有文件信息，然后通过Sort -Descending对文件信息按照Name降序排列，最后将排序好的文件的Name和Mode格式化Table输出。

```
PS C:\PStest> ls | sort -Descending Name | Format-Table Name,Mode

Name                                     Mode
----                                     -
d.txt                                   -a---
c.txt                                   -a---
b.txt                                   -a---
ABC                                     d----
a.txt                                   -a---
```

把命令的输出保存到文件中，‘>’ 为覆盖，‘>>’ 追加

```
PS C:\PStest> "Powershell Routing" >test.txt
PS C:\PStest> Get-Content .\test.txt
Powershell Routing
PS C:\PStest> "Powershell Routing" >>test.txt
PS C:\PStest> "Powershell Routing" >>test.txt
PS C:\PStest> "Powershell Routing" >>test.txt
PS C:\PStest> "Powershell Routing" >>test.txt
PS C:\PStest> "Powershell Routing" >>test.txt
PS C:\PStest> Get-Content .\test.txt
Powershell Routing
Powershell Routing
Powershell Routing
Powershell Routing
Powershell Routing
Powershell Routing
PS C:\PStest>
```

## 执行外部命令

Powershell 能够像CMD一样很好的执行外部命令

通过IPConfig查看自己的网络配置

```

PS C:\PS> ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : www.mossfly.com
    Link-local IPv6 Address . . . . . : fe80::b9dd:91e33:33f0:7885%10
    IPv4 Address. . . . . : 192.168.140.100
    Subnet Mask . . . . . : 255.255.252.0
    Default Gateway . . . . . : 192.168.140.1

Tunnel adapter isatap.www.mossfly.com:

    Connection-specific DNS Suffix  . : www.mossfly.com
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.140.100%11
    Default Gateway . . . . . :

Tunnel adapter Teredo Tunneling Pseudo-Interface:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

```

## 通过netstat查看网络端口状态

```

PS C:\PS> netstat

Active Connections

Proto Local Address           Foreign Address         State
TCP   192.168.0.100:3049      192.168.0.88:7575      ESTABLISHED
TCP   192.168.0.100:3052      192.168.0.88:7575      ESTABLISHED
TCP   192.168.0.100:3061      192.168.0.88:7575      ESTABLISHED

```

## 启动CMD控制台

```

PS C:\PS> cmd
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\PS>exit
PS C:\PS>

```

Cmd.exe 通过 /c 来接收命令参数，在Cmd中help可以查看可用的命令，所以可以通过Cmd /c help 查找可用的Cmd控制台命令



```
PS C:\PS> cmd /c help
有关某个命令的详细信息，请键入 HELP 命令名
ASSOC          显示或修改文件扩展名关联。
ATTRIB         显示或更改文件属性。
BREAK          设置或清除扩展式 CTRL+C 检查。
BCDEDIT         设置启动数据库中的属性以控制启动加载。
CACLS           显示或修改文件的访问控制列表(ACL)。
CALL           从另一个批处理程序调用这一个。
CD             显示当前目录的名称或将其更改。
CHCP           显示或设置活动代码页数。
CHDIR          显示当前目录的名称或将其更改。
CHKDSK         检查磁盘并显示状态报告。
CHKNTFS        显示或修改启动时间磁盘检查。
CLS            清除屏幕。
CMD            打开另一个 Windows 命令解释程序窗口。
COLOR          设置默认控制台前景和背景颜色。
COMP           比较两个或两套文件的内容。
COMPACT        显示或更改 NTFS 分区上文件的压缩。
CONVERT        将 FAT 卷转换成 NTFS。您不能转换当前驱动器。
COPY           将至少一个文件复制到另一个位置。
DATE           显示或设置日期。
DEL            删除至少一个文件。
DIR            显示一个目录中的文件和子目录。
DISKCOMP       比较两个软盘的内容。
DISKCOPY       将一个软盘的内容复制到另一个软盘。
DISKPART       显示或配置磁盘分区属性。
DOSKEY         编辑命令行、调用 Windows 命令并创建宏。
DRIVERQUERY    显示当前设备驱动程序状态和属性。
ECHO           显示消息，或将命令回显打开或关上。
ENDLOCAL       结束批文件中环境更改的本地化。
ERASE          删除一个或多个文件。
EXIT           退出 CMD.EXE 程序(命令解释程序)。
FC            比较两个文件或两个文件集并显示它们之间的不同。
```

# 执行内部命令

每个命令有一个动词和名词组成，命令的作用一目了然

Name	ModuleName	Help
Add-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>
Add-Content	Microsoft.PowerShell.Management	<a href="#">help</a>
Add-History	Microsoft.PowerShell.Core	<a href="#">help</a>
Add-Member	Microsoft.PowerShell.Utility	<a href="#">help</a>

Add-PSSnapin	Microsoft.PowerShell.Core	<a href="#">help</a>
Add-Type	Microsoft.PowerShell.Utility	<a href="#">help</a>
Checkpoint-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>
Clear-Content	Microsoft.PowerShell.Management	<a href="#">help</a>
Clear-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Clear-History	Microsoft.PowerShell.Core	<a href="#">help</a>
Clear-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Clear-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Clear-Variable	Microsoft.PowerShell.Utility	<a href="#">help</a>
Compare-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Complete-Transaction	Microsoft.PowerShell.Management	<a href="#">help</a>
Connect-WSMan	Microsoft.WSMan.Management	<a href="#">help</a>
ConvertFrom-Csv	Microsoft.PowerShell.Utility	<a href="#">help</a>
ConvertFrom-SecureString	Microsoft.PowerShell.Security	<a href="#">help</a>
ConvertFrom-StringData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Convert-Path	Microsoft.PowerShell.Management	<a href="#">help</a>
ConvertTo-Csv	Microsoft.PowerShell.Utility	<a href="#">help</a>
ConvertTo-Html	Microsoft.PowerShell.Utility	<a href="#">help</a>
ConvertTo-SecureString	Microsoft.PowerShell.Security	<a href="#">help</a>
ConvertTo-Xml	Microsoft.PowerShell.Utility	<a href="#">help</a>
Copy-Item	Microsoft.PowerShell.Management	<a href="#">help</a>

Copy-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Debug-Process	Microsoft.PowerShell.Management	<a href="#">help</a>
Disable-ComputerRestore	Microsoft.PowerShell.Management	<a href="#">help</a>
Disable-PSBreakpoint	Microsoft.PowerShell.Utility	<a href="#">help</a>
Disable-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Disable-WSManCredSSP	Microsoft.WSMan.Management	<a href="#">help</a>
Disconnect-WSMan	Microsoft.WSMan.Management	<a href="#">help</a>
Enable-ComputerRestore	Microsoft.PowerShell.Management	<a href="#">help</a>
Enable-PSBreakpoint	Microsoft.PowerShell.Utility	<a href="#">help</a>
Enable-PSRemoting	Microsoft.PowerShell.Core	<a href="#">help</a>
Enable-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Enable-WSManCredSSP	Microsoft.WSMan.Management	<a href="#">help</a>
Enter-PSSession	Microsoft.PowerShell.Core	<a href="#">help</a>
Exit-PSSession	Microsoft.PowerShell.Core	<a href="#">help</a>
Export-Alias	Microsoft.PowerShell.Utility	<a href="#">help</a>
Export-Clixml	Microsoft.PowerShell.Utility	<a href="#">help</a>
Export-Console	Microsoft.PowerShell.Core	<a href="#">help</a>
Export-Counter	Microsoft.PowerShell.Diagnostics	<a href="#">help</a>
Export-Csv	Microsoft.PowerShell.Utility	<a href="#">help</a>
Export-FormatData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Export-ModuleMember	Microsoft.PowerShell.Core	<a href="#">help</a>

Export-PSSession	Microsoft.PowerShell.Utility	<a href="#">help</a>
ForEach-Object	Microsoft.PowerShell.Core	<a href="#">help</a>
Format-Custom	Microsoft.PowerShell.Utility	<a href="#">help</a>
Format-List	Microsoft.PowerShell.Utility	<a href="#">help</a>
Format-Table	Microsoft.PowerShell.Utility	<a href="#">help</a>
Format-Wide	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Acl	Microsoft.PowerShell.Security	<a href="#">help</a>
Get-Alias	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-AuthenticodeSignature	Microsoft.PowerShell.Security	<a href="#">help</a>
Get-ChildItem	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Command	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-ComputerRestorePoint	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Content	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Counter	Microsoft.PowerShell.Diagnostics	<a href="#">help</a>
Get-Credential	Microsoft.PowerShell.Security	<a href="#">help</a>
Get-Culture	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Date	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Event	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-EventSubscriber	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-ExecutionPolicy	Microsoft.PowerShell.Security	<a href="#">help</a>

Get-FormatData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Help	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-History	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-Host	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-HotFix	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-Location	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-Member	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Module	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-PfxCertificate	Microsoft.PowerShell.Security	<a href="#">help</a>
Get-Process	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-PSBreakpoint	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-PSCallStack	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-PSDrive	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-PSProvider	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-PSSession	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-PSSnapin	Microsoft.PowerShell.Core	<a href="#">help</a>
Get-Random	Microsoft.PowerShell.Utility	<a href="#">help</a>

Get-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-TraceSource	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Transaction	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-UICulture	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Unique	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-Variable	Microsoft.PowerShell.Utility	<a href="#">help</a>
Get-WinEvent	Microsoft.PowerShell.Diagnostics	<a href="#">help</a>
Get-WmiObject	Microsoft.PowerShell.Management	<a href="#">help</a>
Get-WSManCredSSP	Microsoft.WSMan.Management	<a href="#">help</a>
Get-WSManInstance	Microsoft.WSMan.Management	<a href="#">help</a>
Group-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Import-Alias	Microsoft.PowerShell.Utility	<a href="#">help</a>
Import-Clixml	Microsoft.PowerShell.Utility	<a href="#">help</a>
Import-Counter	Microsoft.PowerShell.Diagnostics	<a href="#">help</a>
Import-Csv	Microsoft.PowerShell.Utility	<a href="#">help</a>
Import-LocalizedData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Import-Module	Microsoft.PowerShell.Core	<a href="#">help</a>
Import-PSSession	Microsoft.PowerShell.Utility	<a href="#">help</a>
Invoke-Command	Microsoft.PowerShell.Core	<a href="#">help</a>
Invoke-Expression	Microsoft.PowerShell.Utility	<a href="#">help</a>
Invoke-History	Microsoft.PowerShell.Core	<a href="#">help</a>

Invoke-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Invoke-WmiMethod	Microsoft.PowerShell.Management	<a href="#">help</a>
Invoke-WSManAction	Microsoft.WSMan.Management	<a href="#">help</a>
Join-Path	Microsoft.PowerShell.Management	<a href="#">help</a>
Limit-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Measure-Command	Microsoft.PowerShell.Utility	<a href="#">help</a>
Measure-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Move-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Move-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
New-Alias	Microsoft.PowerShell.Utility	<a href="#">help</a>
New-Event	Microsoft.PowerShell.Utility	<a href="#">help</a>
New-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
New-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
New-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
New-Module	Microsoft.PowerShell.Core	<a href="#">help</a>
New-ModuleManifest	Microsoft.PowerShell.Core	<a href="#">help</a>
New-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
New-PSDrive	Microsoft.PowerShell.Management	<a href="#">help</a>
New-PSSession	Microsoft.PowerShell.Core	<a href="#">help</a>
New-PSSessionOption	Microsoft.PowerShell.Core	<a href="#">help</a>
New-Service	Microsoft.PowerShell.Management	<a href="#">help</a>

New-TimeSpan	Microsoft.PowerShell.Utility	<a href="#">help</a>
New-Variable	Microsoft.PowerShell.Utility	<a href="#">help</a>
New-WebServiceProxy	Microsoft.PowerShell.Management	<a href="#">help</a>
New-WSManInstance	Microsoft.WSMan.Management	<a href="#">help</a>
New-WSManSessionOption	Microsoft.WSMan.Management	<a href="#">help</a>
Out-Default	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-File	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-GridView	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-Host	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-Null	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-Printer	Microsoft.PowerShell.Utility	<a href="#">help</a>
Out-String	Microsoft.PowerShell.Utility	<a href="#">help</a>
Pop-Location	Microsoft.PowerShell.Management	<a href="#">help</a>
Push-Location	Microsoft.PowerShell.Management	<a href="#">help</a>
Read-Host	Microsoft.PowerShell.Utility	<a href="#">help</a>
Receive-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Register-EngineEvent	Microsoft.PowerShell.Utility	<a href="#">help</a>
Register-ObjectEvent	Microsoft.PowerShell.Utility	<a href="#">help</a>
Register-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Register-WmiEvent	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>



Remove-Event	Microsoft.PowerShell.Utility	<a href="#">help</a>
Remove-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Remove-Module	Microsoft.PowerShell.Core	<a href="#">help</a>
Remove-PSBreakpoint	Microsoft.PowerShell.Utility	<a href="#">help</a>
Remove-PSDrive	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-PSSession	Microsoft.PowerShell.Core	<a href="#">help</a>
Remove-PSSnapin	Microsoft.PowerShell.Core	<a href="#">help</a>
Remove-Variable	Microsoft.PowerShell.Utility	<a href="#">help</a>
Remove-WmiObject	Microsoft.PowerShell.Management	<a href="#">help</a>
Remove-WSManInstance	Microsoft.WSMan.Management	<a href="#">help</a>
Rename-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Rename-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Reset-ComputerMachinePassword	Microsoft.PowerShell.Management	<a href="#">help</a>
Resolve-Path	Microsoft.PowerShell.Management	<a href="#">help</a>
Restart-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>
Restart-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Restore-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>
Resume-Service	Microsoft.PowerShell.Management	<a href="#">help</a>

Select-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Select-String	Microsoft.PowerShell.Utility	<a href="#">help</a>
Select-Xml	Microsoft.PowerShell.Utility	<a href="#">help</a>
Send-MailMessage	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-Acl	Microsoft.PowerShell.Security	<a href="#">help</a>
Set-Alias	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-AuthenticodeSignature	Microsoft.PowerShell.Security	<a href="#">help</a>
Set-Content	Microsoft.PowerShell.Management	<a href="#">help</a>
Set-Date	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-ExecutionPolicy	Microsoft.PowerShell.Security	<a href="#">help</a>
Set-Item	Microsoft.PowerShell.Management	<a href="#">help</a>
Set-ItemProperty	Microsoft.PowerShell.Management	<a href="#">help</a>
Set-Location	Microsoft.PowerShell.Management	<a href="#">help</a>
Set-PSBreakpoint	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-PSDebug	Microsoft.PowerShell.Core	<a href="#">help</a>
Set-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Set-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Set-StrictMode	Microsoft.PowerShell.Core	<a href="#">help</a>
Set-TraceSource	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-Variable	Microsoft.PowerShell.Utility	<a href="#">help</a>
Set-WmiInstance	Microsoft.PowerShell.Management	<a href="#">help</a>

Set-WSManInstance	Microsoft.WSMan.Management	<a href="#">help</a>
Set-WSManQuickConfig	Microsoft.WSMan.Management	<a href="#">help</a>
Show-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Sort-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Split-Path	Microsoft.PowerShell.Management	<a href="#">help</a>
Start-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Start-Process	Microsoft.PowerShell.Management	<a href="#">help</a>
Start-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Start-Sleep	Microsoft.PowerShell.Utility	<a href="#">help</a>
Start-Transaction	Microsoft.PowerShell.Management	<a href="#">help</a>
Start-Transcript	Microsoft.PowerShell.Host	<a href="#">help</a>
Stop-Computer	Microsoft.PowerShell.Management	<a href="#">help</a>
Stop-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Stop-Process	Microsoft.PowerShell.Management	<a href="#">help</a>
Stop-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Stop-Transcript	Microsoft.PowerShell.Host	<a href="#">help</a>
Suspend-Service	Microsoft.PowerShell.Management	<a href="#">help</a>
Tee-Object	Microsoft.PowerShell.Utility	<a href="#">help</a>
Test-ComputerSecureChannel	Microsoft.PowerShell.Management	<a href="#">help</a>
Test-Connection	Microsoft.PowerShell.Management	<a href="#">help</a>
Test-ModuleManifest	Microsoft.PowerShell.Core	<a href="#">help</a>

Test-Path	Microsoft.PowerShell.Management	<a href="#">help</a>
Test-WSMan	Microsoft.WSMan.Management	<a href="#">help</a>
Trace-Command	Microsoft.PowerShell.Utility	<a href="#">help</a>
Undo-Transaction	Microsoft.PowerShell.Management	<a href="#">help</a>
Unregister-Event	Microsoft.PowerShell.Utility	<a href="#">help</a>
Unregister-PSSessionConfiguration	Microsoft.PowerShell.Core	<a href="#">help</a>
Update-FormatData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Update-List	Microsoft.PowerShell.Utility	<a href="#">help</a>
Update-TypeData	Microsoft.PowerShell.Utility	<a href="#">help</a>
Use-Transaction	Microsoft.PowerShell.Management	<a href="#">help</a>
Wait-Event	Microsoft.PowerShell.Utility	<a href="#">help</a>
Wait-Job	Microsoft.PowerShell.Core	<a href="#">help</a>
Wait-Process	Microsoft.PowerShell.Management	<a href="#">help</a>
Where-Object	Microsoft.PowerShell.Core	<a href="#">help</a>
Write-Debug	Microsoft.PowerShell.Utility	<a href="#">help</a>
Write-Error	Microsoft.PowerShell.Utility	<a href="#">help</a>
Write-EventLog	Microsoft.PowerShell.Management	<a href="#">help</a>
Write-Host	Microsoft.PowerShell.Utility	<a href="#">help</a>
Write-Output	Microsoft.PowerShell.Utility	<a href="#">help</a>
Write-Progress	Microsoft.PowerShell.Utility	<a href="#">help</a>
Write-Verbose	Microsoft.PowerShell.Utility	<a href="#">help</a>

## powershell脚本

Powershell一般初始化情况下都会禁止脚本执行。脚本能否执行取决于Powershell的执行策略

Get-ExecutionPolicy 查看权限

Unrestricted:权限最高，可以不受限制执行任何脚本。

Default:为Powershell默认的策略：Restricted，不允许任何脚本执行。

AllSigned：所有脚本都必须经过签名才能在运行。

RemoteSigned：本地脚本无限制，但是对来自网络的脚本必须经过签名

### 改变运行策略

Set-ExecutionPolicy Unrestricted

```
PS C:\Users\Administrator> Set-ExecutionPolicy Unrestricted

执行策略更改
执行策略可以防止您执行不信任的脚本。更改执行策略可能会使您面临安全风险。
帮助主题中所述的安全风险。是否要更改执行策略? about_Execution_Policies
[Y] 是(Y) [N] 否(N) [S] 挂起(S) [?] 帮助 (默认值为“Y”): y
PS C:\Users\Administrator> Get-ExecutionPolicy
Unrestricted
PS C:\Users\Administrator>
```

编写一个脚本内容位netstat -ano

PS C:\Users\Administrator\Desktop> .\1.ps1

活动连接

协议	本地地址	外部地址	状态	PID	
TCP	0.0.0.0:80	0.0.0.0:0	LISTENING	4	
TCP	0.0.0.0:135	0.0.0.0:0	LISTENING	660	
TCP	0.0.0.0:445	0.0.0.0:0	LISTENING	4	
TCP	0.0.0.0:1688	0.0.0.0:0	LISTENING	2524	
TCP	0.0.0.0:3389	0.0.0.0:0	LISTENING	1440	
TCP	0.0.0.0:47001	0.0.0.0:0	LISTENING	4	
TCP	0.0.0.0:49152	0.0.0.0:0	LISTENING	372	
TCP	0.0.0.0:49153	0.0.0.0:0	LISTENING	756	
TCP	0.0.0.0:49154	0.0.0.0:0	LISTENING	804	
TCP	0.0.0.0:49155	0.0.0.0:0	LISTENING	476	
TCP	0.0.0.0:49156	0.0.0.0:0	LISTENING	1484	
TCP	0.0.0.0:49159	0.0.0.0:0	LISTENING	484	
TCP	192.168.41.20:139	0.0.0.0:0	LISTENING	4	
TCP	[::]:80	:::0	LISTENING	4	
TCP	[::]:135	:::0	LISTENING	660	
TCP	[::]:445	:::0	LISTENING	4	
TCP	[::]:1688	:::0	LISTENING	2524	
TCP	[::]:3389	:::0	LISTENING	1440	
TCP	[::]:47001	:::0	LISTENING	4	
TCP	[::]:49152	:::0	LISTENING	372	
TCP	[::]:49153	:::0	LISTENING	756	
TCP	[::]:49154	:::0	LISTENING	804	
TCP	[::]:49155	:::0	LISTENING	476	
TCP	[::]:49156	:::0	LISTENING	1484	
TCP	[::]:49159	:::0	LISTENING	484	
UDP	0.0.0.0:123	::*		856	
UDP	0.0.0.0:500	::*		804	
UDP	0.0.0.0:4500	::*		804	
UDP	0.0.0.0:5355	::*		944	
UDP	192.168.41.20:137	::*		4	
UDP	192.168.41.20:138	::*		4	
UDP	[::]:123	::*		856	
UDP	[::]:500	::*		804	
UDP	[::]:4500	::*		804	
UDP	[::]:5355	::*		944	