

## 网络系统管理（B-1）- 评分标准

### 模块 B: Windows 环境（300 分）

要求：使用下面指令查看其运行状态，并使用 FSCapture 截图软件进行截图，将输入结果的截图插入到文档中。

注：

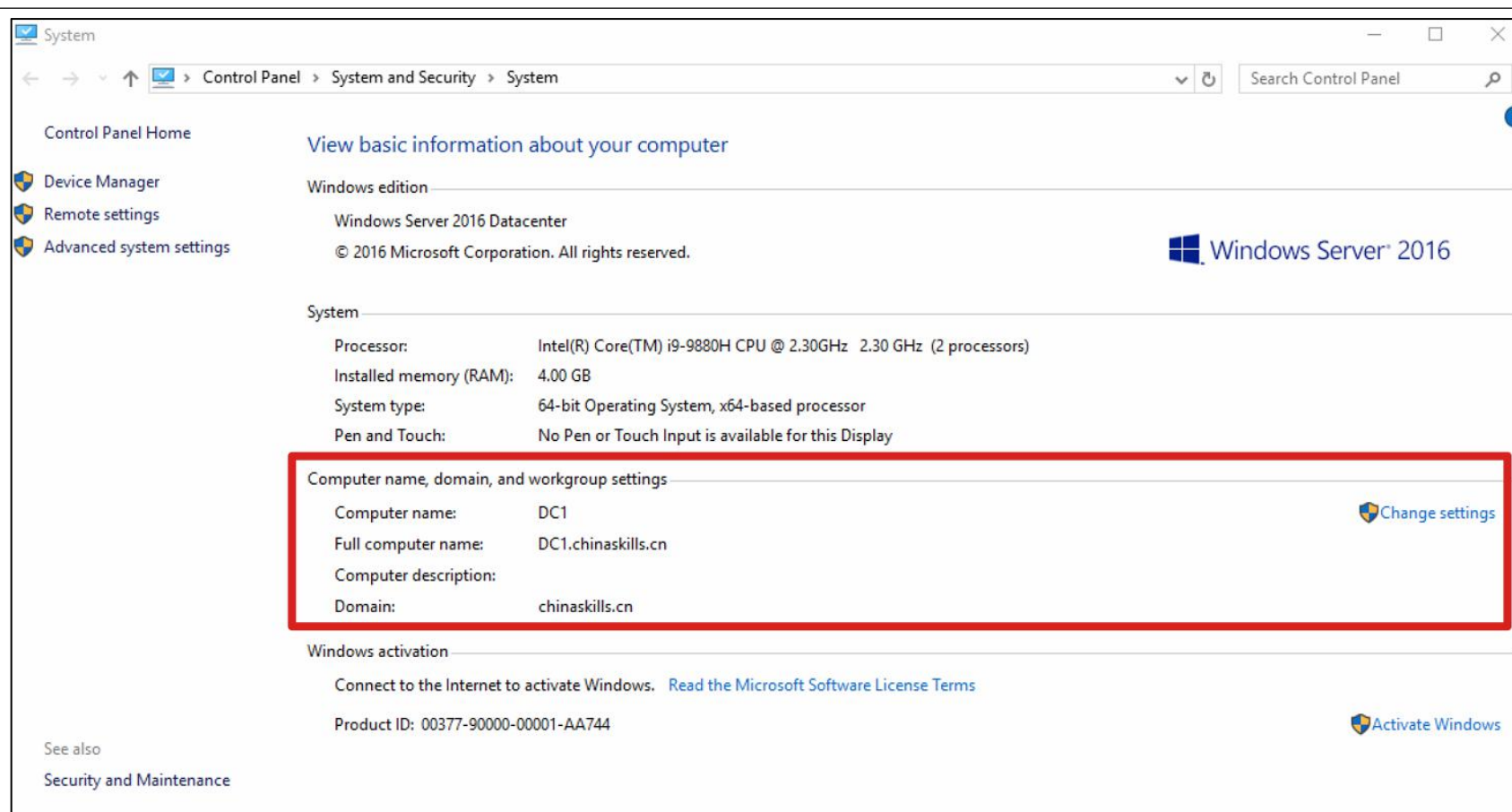
✧ 在测试报告中，如果整个大题没有截图则整个大题不得分，未使用抓图工具截图的或截图不完整不清晰，则不给分。

### 基础配置分（10 分）

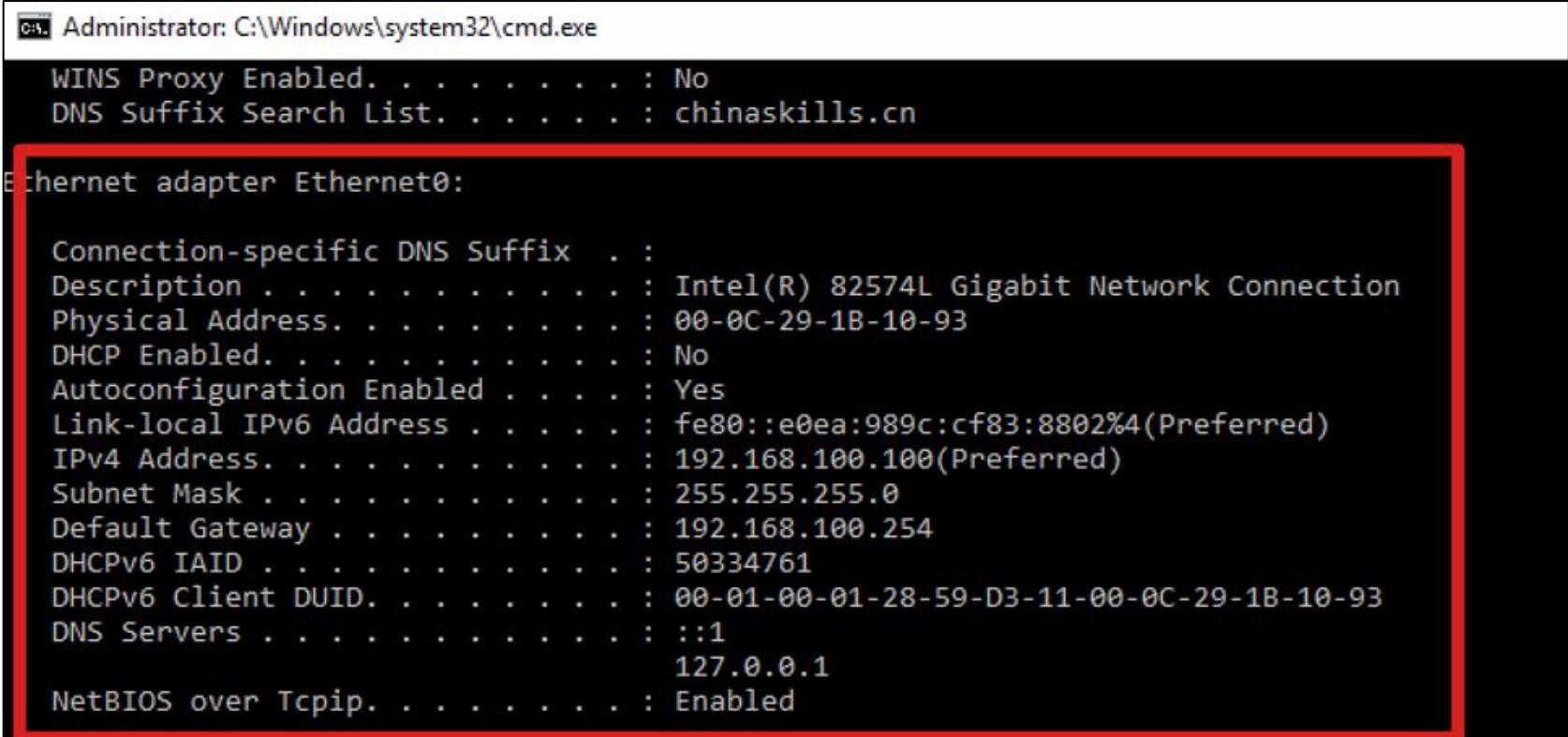
评分要点	分值	评分
1、截图文档整洁规范，根据题目要求进行截图。	10	
文档简洁，截图清晰有序即可得满分。		

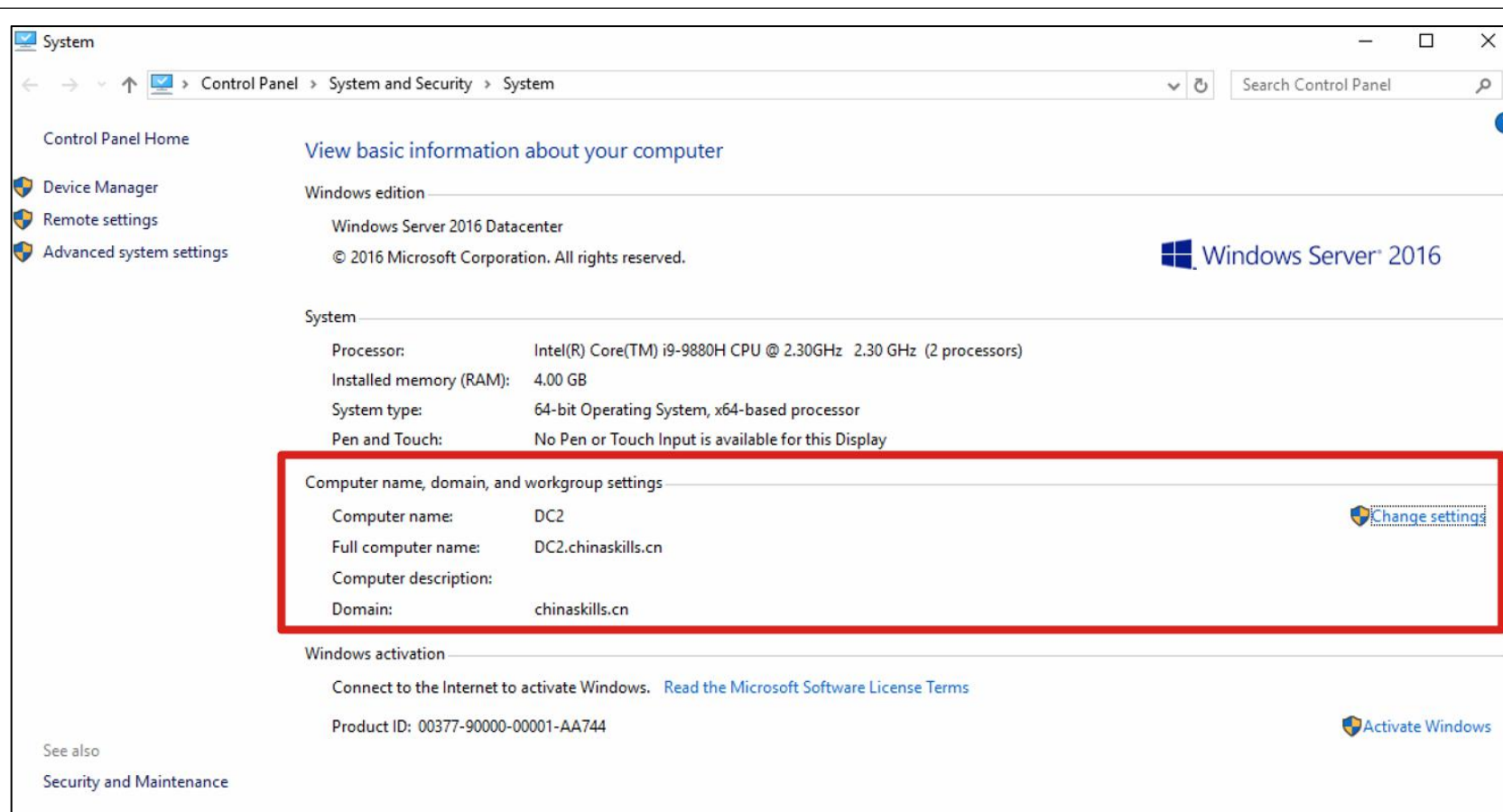
### 网络地址规划（35 分）

评分要点	分值	评分
1、DC1：（1）完全限定域名（在 DC1 上打开“This PC”属性页面进行截图）；【1 分】（2）网络地址/掩码/网关/DNS（在 DC1 上打开 cmd 并执行指令：ipconfig /all）。【4 分】	5	
（1）完全限定域名：（评分要点：主机名和域名不需要区分大小写，完成主机名为“DC1.chinaskills.cn”。）		

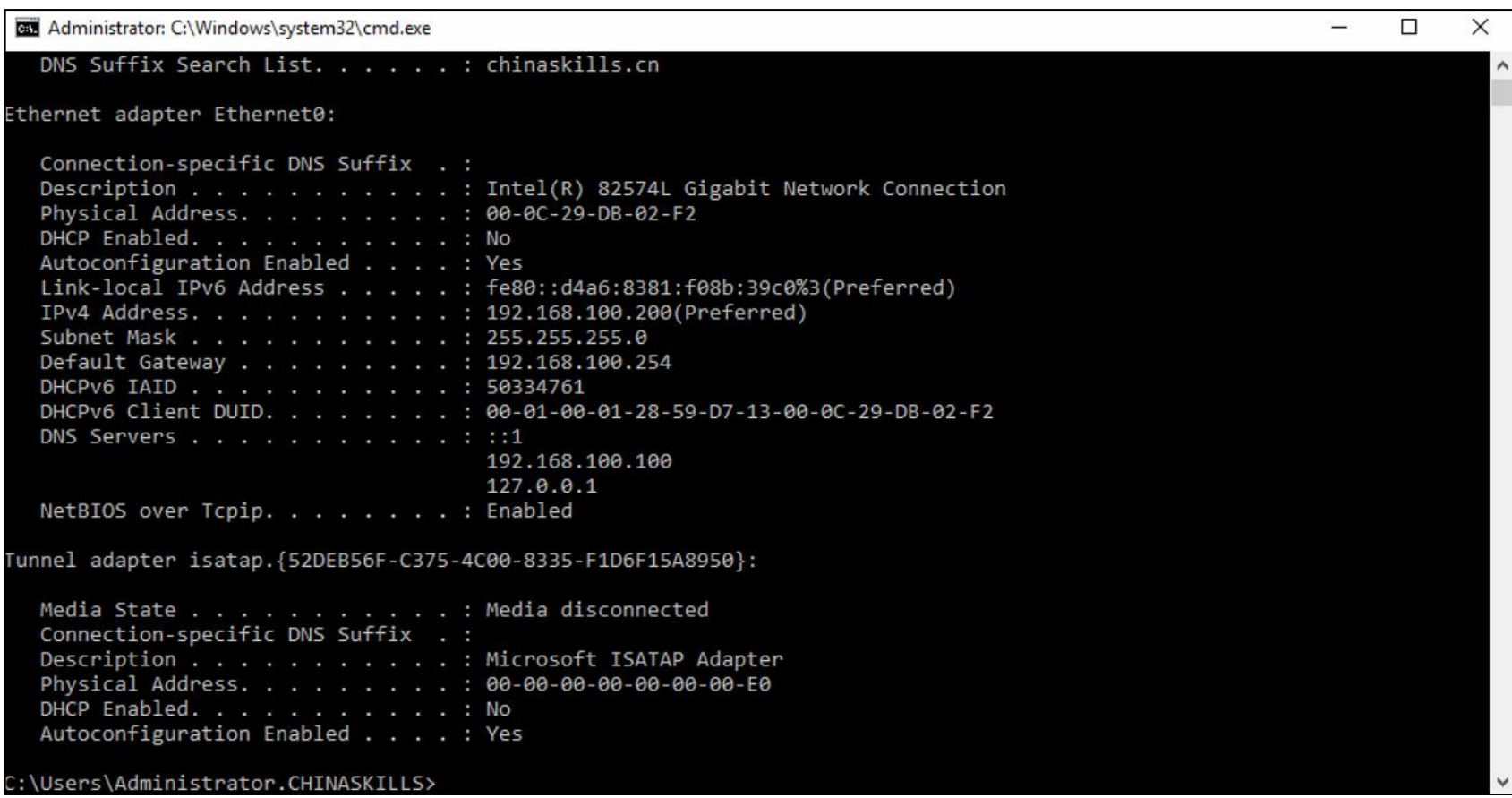


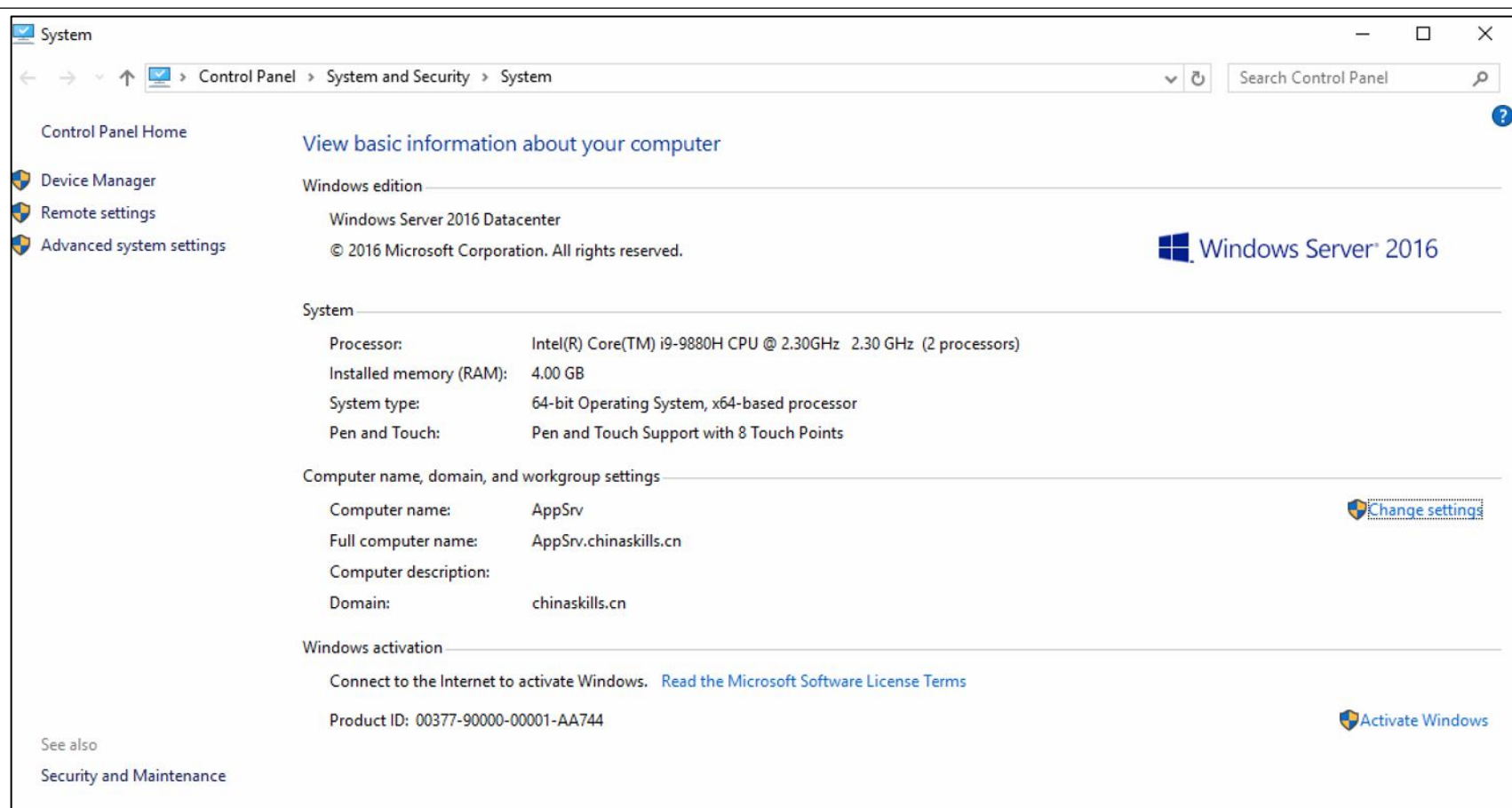
(1) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 192.168.100.100, 掩码为 255.255.255.0, 网关地址为 192.168.100.254, DNS 设置为 127.0.0.1。)

		
<p>2、DC2: (1) 完全限定域名 (在 DC2 上打开 “This PC” 属性页面进行截图): 【1 分】 (2) 网络地址/掩码/网关/DNS (在 DC2 上打开 cmd 并执行指令: ipconfig /all)。【4 分】</p>	5	
<p>(1) 完全限定域名: (评分要点: 主机名和域名不需要区分大小写, 完成主机名为 “DC2.chinaskills.cn”。)</p>		



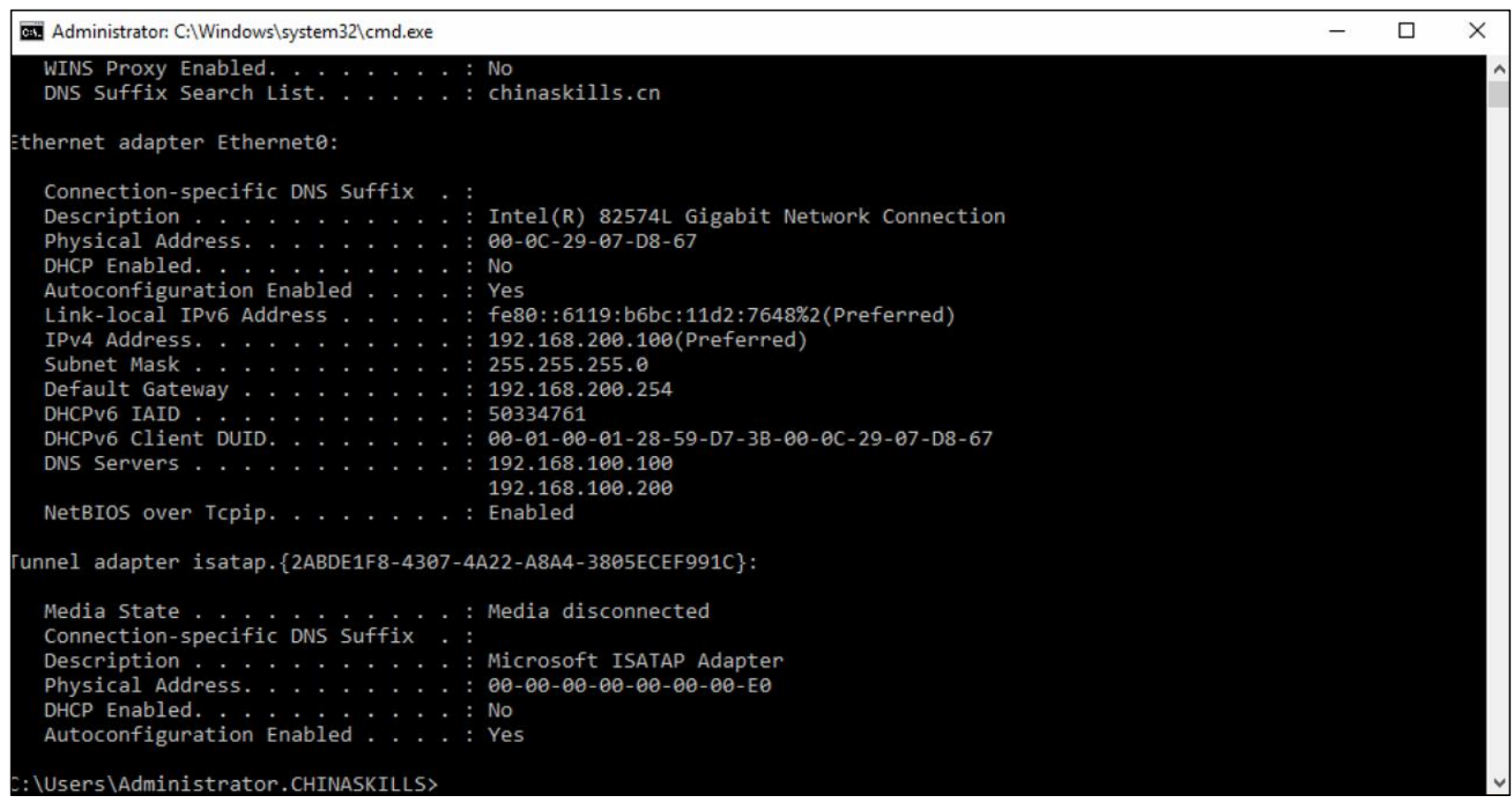
(2) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 192.168.100.200, 掩码为 255.255.255.0, 网关地址为 192.168.100.254, DNS 设置为 127.0.0.1。)

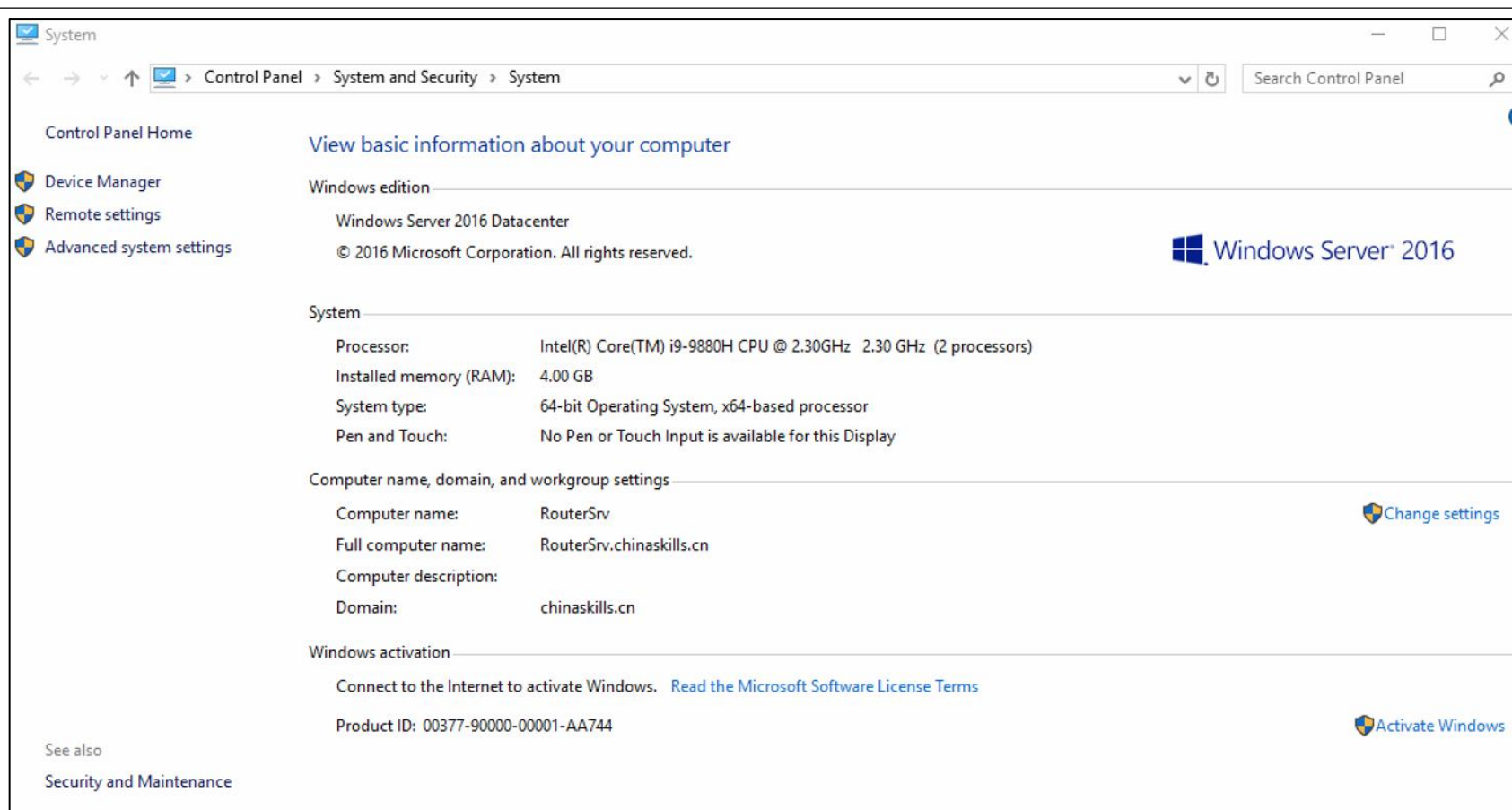
 <p>Administrator: C:\Windows\system32\cmd.exe</p> <pre> DNS Suffix Search List. . . . . : chinaskills.cn  Ethernet adapter Ethernet0:      Connection-specific DNS Suffix  . :     Description . . . . . : Intel(R) 82574L Gigabit Network Connection     Physical Address. . . . . : 00-0C-29-DB-02-F2     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes     Link-local IPv6 Address . . . . . : fe80::d4a6:8381:f08b:39c0%3(Preferred)     IPv4 Address. . . . . : 192.168.100.200(Preferred)     Subnet Mask . . . . . : 255.255.255.0     Default Gateway . . . . . : 192.168.100.254     DHCPv6 IAID . . . . . : 50334761     DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-13-00-0C-29-DB-02-F2     DNS Servers . . . . . : ::1                            192.168.100.100                            127.0.0.1     NetBIOS over Tcpip. . . . . : Enabled  Tunnel adapter isatap.{52DEB56F-C375-4C00-8335-F1D6F15A8950}:      Media State . . . . . : Media disconnected     Connection-specific DNS Suffix  . :     Description . . . . . : Microsoft ISATAP Adapter     Physical Address. . . . . : 00-00-00-00-00-00-E0     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes  C:\Users\Administrator.CHINASKILLS&gt; </pre>		
<p>3、APPSRV：（1）完全限定域名（在 appsrv 上打开“This PC”属性页面进行截图）：【1分】（2）网络地址/掩码/网关/DNS（在 appsrv 上打开 cmd 并执行指令：ipconfig /all）。【4分】</p>	5	
<p>（1）完全限定域名：（评分要点：主机名和域名不需要区分大小写，完成主机名为“AppSrv.chinaskills.cn”。）</p>		



(2) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 192.168.200.100, 掩码为 255.255.255.0, 网关地址为 192.168.200.254, DNS 设置为 192.168.100.100 和 192.168.100.200。)



 <p>Administrator: C:\Windows\system32\cmd.exe</p> <pre> WINS Proxy Enabled. . . . . : No DNS Suffix Search List. . . . . : chinaskills.cn  Ethernet adapter Ethernet0:      Connection-specific DNS Suffix  . :      Description . . . . . : Intel(R) 82574L Gigabit Network Connection     Physical Address. . . . . : 00-0C-29-07-D8-67     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes     Link-local IPv6 Address . . . . . : fe80::6119:b6bc:11d2:7648%2(Preferred)     IPv4 Address. . . . . : 192.168.200.100(Preferred)     Subnet Mask . . . . . : 255.255.255.0     Default Gateway . . . . . : 192.168.200.254     DHCPv6 IAID . . . . . : 50334761     DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-3B-00-0C-29-07-D8-67     DNS Servers . . . . . : 192.168.100.100                            192.168.100.200     NetBIOS over Tcpip. . . . . : Enabled  Tunnel adapter isatap.{2ABDE1F8-4307-4A22-A8A4-3805ECEF991C}:      Media State . . . . . : Media disconnected     Connection-specific DNS Suffix  . :      Description . . . . . : Microsoft ISATAP Adapter     Physical Address. . . . . : 00-00-00-00-00-00-E0     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes  C:\Users\Administrator.CHINASKILLS&gt; </pre>		
<p>4、ROUTERSRV：（1）完全限定域名（在 routersrv 上打开 “This PC” 属性页面进行截图）；【1 分】（2）网络地址/掩码/网关/DNS（在 routersrv 上打开 cmd 并执行指令：ipconfig /all）。【4 分】</p>	5	
<p>（1）完全限定域名：（评分要点：主机名和域名不需要区分大小写，完成主机名为 “RouterSrv.chinaskills.cn”。）</p>		



(2) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 192.168.100.254、192.168.200.254、192.168.0.254、100.100.100.251, 掩码为 255.255.255.0, 网关地址为 100.100.100.254, DNS 设置为 192.168.100.100 和 192.168.100.200。)



ca. Select Administrator: C:\Windows\system32\cmd.exe

Ethernet adapter Ethernet0:

```
Connection-specific DNS Suffix  . :  
Description . . . . . : Intel(R) 82574L Gigabit Network Connection  
Physical Address. . . . . : 00-0C-29-87-AD-87  
DHCP Enabled. . . . . : No  
Autoconfiguration Enabled . . . . : Yes  
Link-local IPv6 Address . . . . . : fe80::2814:1261:85cb:8741%7(Preferred)  
IPv4 Address. . . . . : 192.168.100.254(Preferred)  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DHCPv6 IAID . . . . . : 50334761  
DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-53-00-0C-29-87-AD-87  
DNS Servers . . . . . : 192.168.100.100  
                          192.168.100.200  
NetBIOS over Tcpip. . . . . : Enabled
```

Ethernet adapter Ethernet1:

```
Connection-specific DNS Suffix  . :  
Description . . . . . : Intel(R) 82574L Gigabit Network Connection #2  
Physical Address. . . . . : 00-0C-29-87-AD-91  
DHCP Enabled. . . . . : No  
Autoconfiguration Enabled . . . . : Yes  
Link-local IPv6 Address . . . . . : fe80::25bf:3527:7337:f022%9(Preferred)  
IPv4 Address. . . . . : 192.168.0.254(Preferred)  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DHCPv6 IAID . . . . . : 67111977  
DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-53-00-0C-29-87-AD-87  
DNS Servers . . . . . : fec0:0:0:ffff::1%1  
                          fec0:0:0:ffff::2%1  
                          fec0:0:0:ffff::3%1  
NetBIOS over Tcpip. . . . . : Enabled
```

```

ca. Select Administrator: C:\Windows\system32\cmd.exe

NetBIOS over Tcpip. . . . . : Enabled
                                fec0:0:0:ffff::3%1

Ethernet adapter Ethernet2:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : Intel(R) 82574L Gigabit Network Connection #3
    Physical Address. . . . . : 00-0C-29-87-AD-9B
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::7814:3b98:872c:9bef%5(Preferred)
    IPv4 Address. . . . . : 192.168.200.254(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 
    DHCPv6 IAID . . . . . : 83889193
    DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-53-00-0C-29-87-AD-87
    DNS Servers . . . . . : fec0:0:0:ffff::1%1
                                fec0:0:0:ffff::2%1
                                fec0:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled

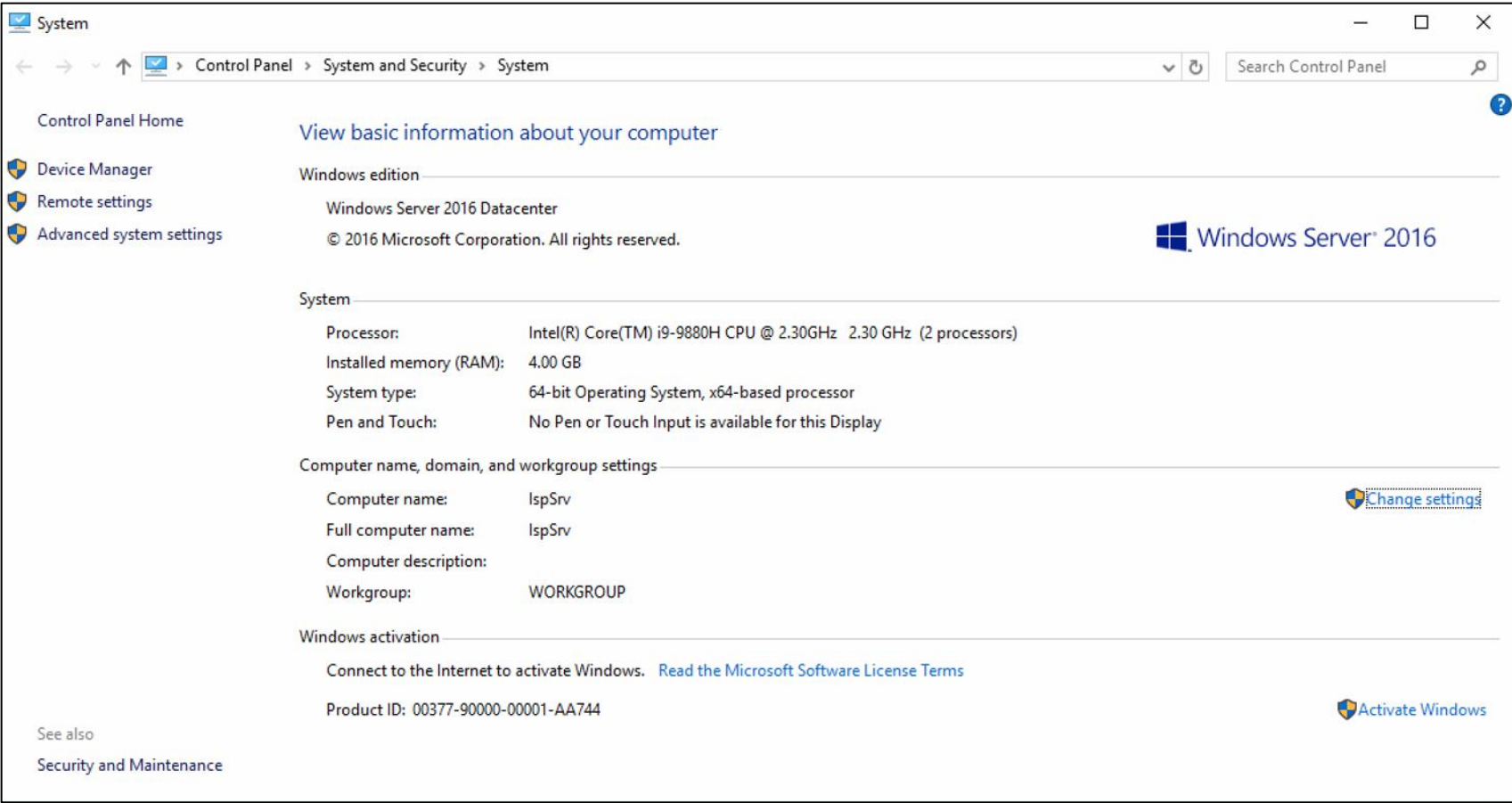
Ethernet adapter Ethernet3:

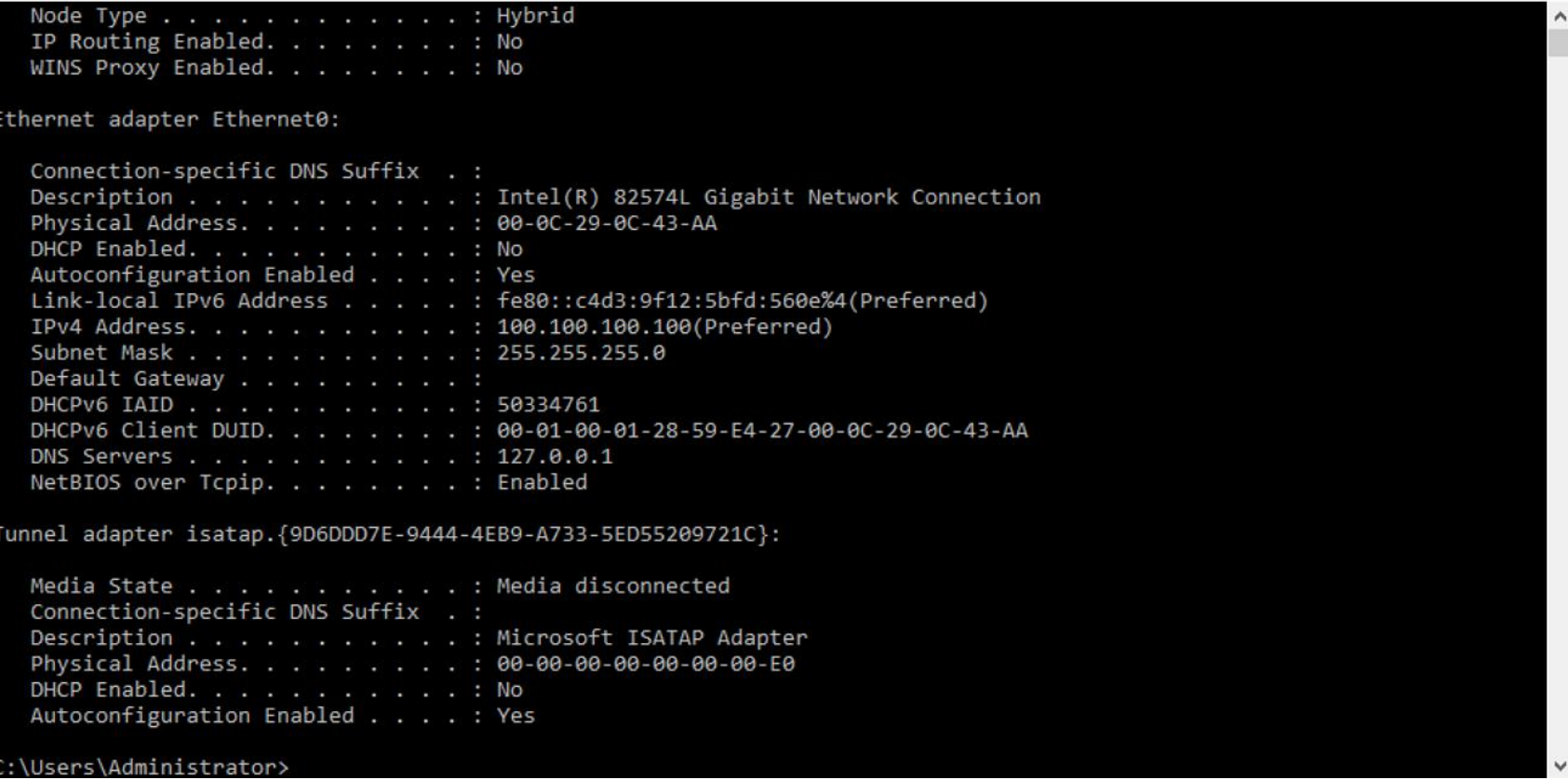
    Connection-specific DNS Suffix  . : 
    Description . . . . . : Intel(R) 82574L Gigabit Network Connection #4
    Physical Address. . . . . : 00-0C-29-87-AD-A5
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::a407:d113:8e60:e691%8(Preferred)
    IPv4 Address. . . . . : 100.100.100.251(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 100.100.100.254
    DHCPv6 IAID . . . . . : 100666409
    DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D7-53-00-0C-29-87-AD-87
    DNS Servers . . . . . : fec0:0:0:ffff::1%1
                                fec0:0:0:ffff::2%1
                                fec0:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled

PPP adapter RAS (Dial In) Interface:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : RAS (Dial In) Interface
    Physical Address. . . . . : 
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    IPv4 Address. . . . . : 192.168.1.200(Preferred)
    Subnet Mask . . . . . : 255.255.255.255
    Default Gateway . . . . . : 
    NetBIOS over Tcpip. . . . . : Enabled

```

<p>5、ISPSRV：（1）完全限定域名（在 ispsrv 上打开 “This PC” 属性页面进行截图）；【1 分】（2）网络地址/掩码/网关/DNS（在 ispsrv 上打开 cmd 并执行指令：ipconfig /all）。【4 分】</p>	5	
<p>（1）完全限定域名：（评分要点：主机名和域名不需要区分大小写，完成主机名为 “IspSrv”。）</p>  <p>The screenshot shows the Windows 'System' settings window. The breadcrumb path is 'Control Panel &gt; System and Security &gt; System'. The 'System' section displays hardware information: Processor (Intel(R) Core(TM) i9-9880H CPU @ 2.30GHz), Installed memory (RAM) (4.00 GB), System type (64-bit Operating System, x64-based processor), and Pen and Touch (No Pen or Touch Input is available for this Display). The 'Computer name, domain, and workgroup settings' section shows 'Computer name: IspSrv', 'Full computer name: IspSrv', 'Computer description:', and 'Workgroup: WORKGROUP'. There is a 'Change settings' link next to the computer name. The 'Windows activation' section at the bottom shows 'Connect to the Internet to activate Windows.' with a link to 'Read the Microsoft Software License Terms' and 'Product ID: 00377-90000-00001-AA744'. A link to 'Activate Windows' is also present.</p> <p>（2）网络地址/掩码/网关/DNS：（评分要点：IP 地址为 100.100.100.100，掩码为 255.255.255.0，不配置网关地址，DNS 设置为 127.0.0.1。）</p>		

 <p>Administrator: C:\Windows\system32\cmd.exe</p> <pre> Node Type . . . . . : Hybrid IP Routing Enabled. . . . . : No WINS Proxy Enabled. . . . . : No  Ethernet adapter Ethernet0:      Connection-specific DNS Suffix  . :      Description . . . . . : Intel(R) 82574L Gigabit Network Connection     Physical Address. . . . . : 00-0C-29-0C-43-AA     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes     Link-local IPv6 Address . . . . . : fe80::c4d3:9f12:5bfd:560e%4(Preferred)     IPv4 Address. . . . . : 100.100.100.100(Preferred)     Subnet Mask . . . . . : 255.255.255.0     Default Gateway . . . . . :      DHCPv6 IAID . . . . . : 50334761     DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-E4-27-00-0C-29-0C-43-AA     DNS Servers . . . . . : 127.0.0.1     NetBIOS over Tcpip. . . . . : Enabled  Tunnel adapter isatap.{9D6DDD7E-9444-4EB9-A733-5ED55209721C}:      Media State . . . . . : Media disconnected     Connection-specific DNS Suffix  . :      Description . . . . . : Microsoft ISATAP Adapter     Physical Address. . . . . : 00-00-00-00-00-00-E0     DHCP Enabled. . . . . : No     Autoconfiguration Enabled . . . . : Yes  C:\Users\Administrator&gt; </pre>		
<p>6、OUTSIDECLI: (1) 完全限定域名 (在 outsidecli 上打开 “This PC” 属性页面进行截图); 【1 分】 (2) 网络地址/掩码/网关/DNS (在 outsidecli 上打开 cmd 并执行指令: ipconfig /all)。【4 分】</p>	5	
<p>(1) 完全限定域名: (评分要点: 主机名和域名不需要区分大小写, 完成主机名为 “OutsideCli”。)</p>		

System

Control Panel > System and Security > System

Search Control Panel

Control Panel Home

Device Manager

Remote settings

System protection

Advanced system settings

View basic information about your computer

Windows edition

Windows 10 Enterprise

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System

Processor: Intel(R) Core(TM) i9-9880H CPU @ 2.30GHz 2.30 GHz (2 processors)

Installed memory (RAM): 4.00 GB

System type: 64-bit Operating System, x64-based processor

Pen and Touch: Touch Support with 8 Touch Points

Computer name, domain, and workgroup settings

Computer name: OutsideCli

Full computer name: OutsideCli

Computer description:

Workgroup: WORKGROUP

Change settings

Windows activation

Windows is not activated. [Read the Microsoft Software License Terms](#)

Product ID: 00329-00000-00003-AA539

Activate Windows

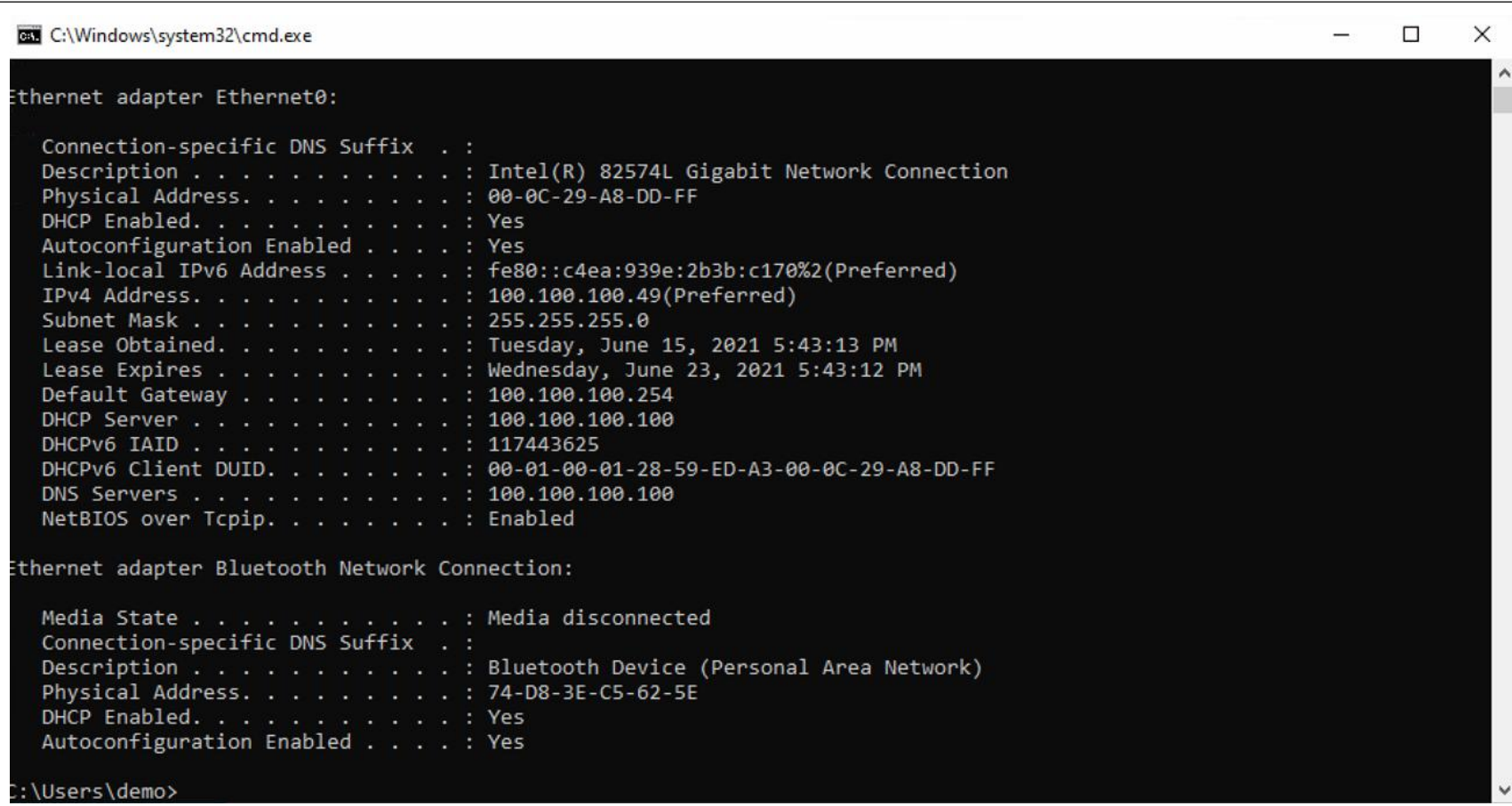
See also

Security and Maintenance

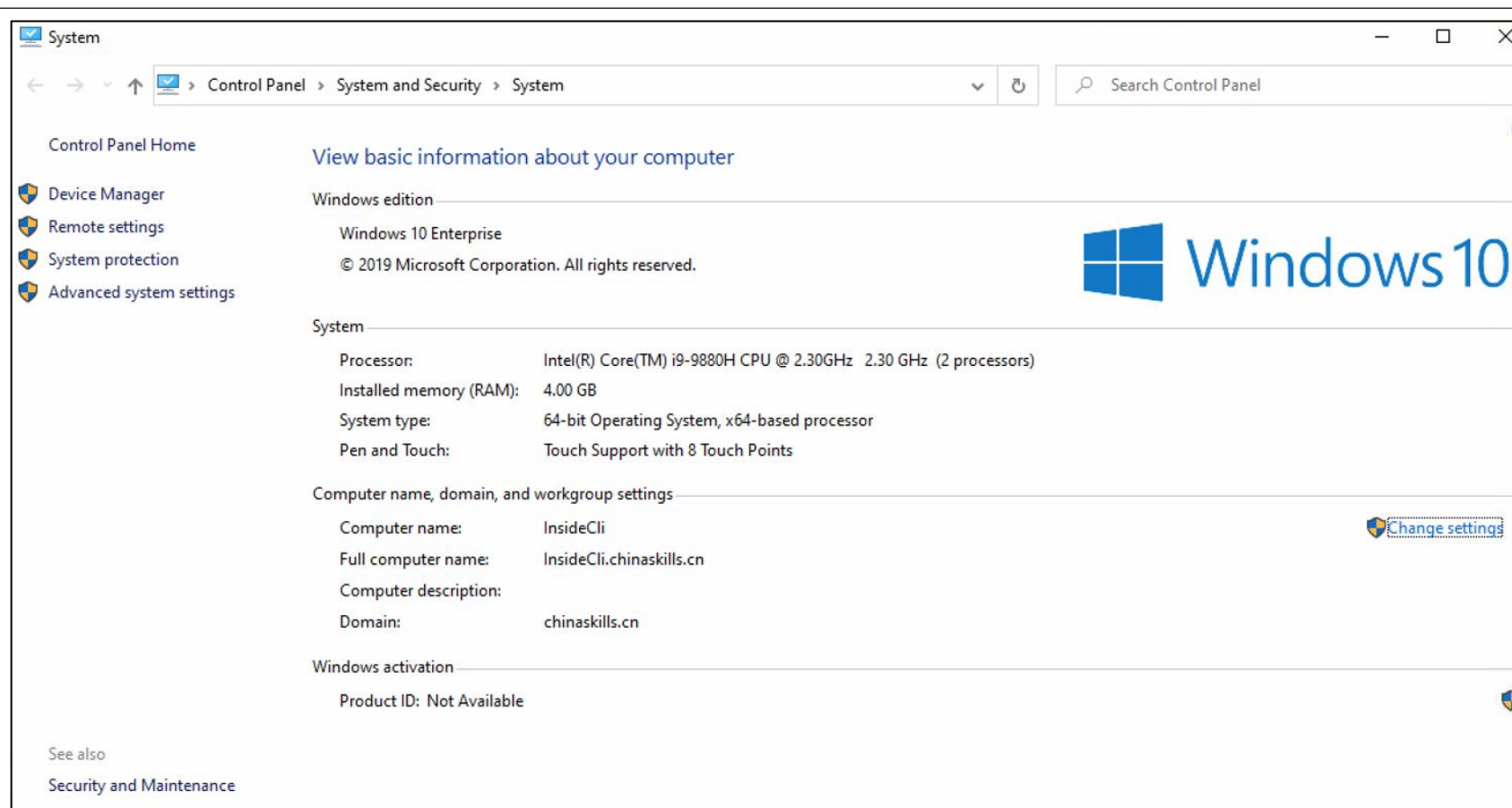
(2) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 100.100.100.49 (并且通过 dhcp 获取的), 掩码为 255.255.255.0, 网关地址为 100.100.100.254, DNS 设置为 100.100.100.100。)

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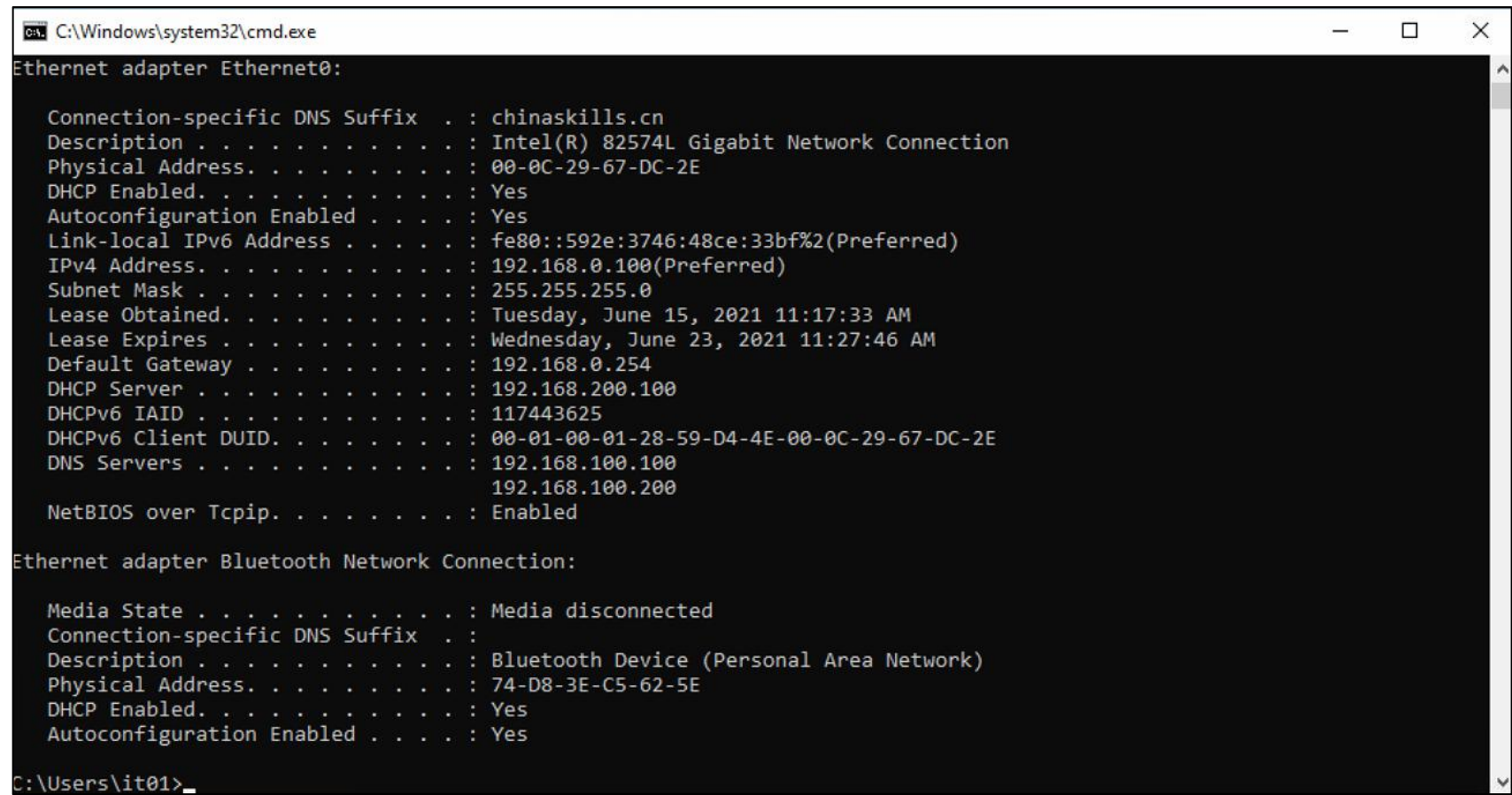


 <p>The screenshot shows a Windows command prompt window titled "C:\Windows\system32\cmd.exe". It displays the output of the 'ipconfig' command. The first section is for 'Ethernet adapter Ethernet0:', showing details like Description (Intel(R) 82574L Gigabit Network Connection), Physical Address (00-0C-29-A8-DD-FF), IPv4 Address (100.100.100.49), and Subnet Mask (255.255.255.0). The second section is for 'Ethernet adapter Bluetooth Network Connection:', showing Media State (Media disconnected) and Physical Address (74-D8-3E-C5-62-5E). The prompt is at 'C:\Users\demo&gt;'.</p>		
<p>7、INSIDECLI: (1) 完全限定域名 (在 insidecli 上打开 “This PC” 属性页面进行截图); 【1 分】 (2) 网络地址/掩码/网关/DNS (在 insidecli 上打开 cmd 并执行指令: ipconfig /all)。 【4 分】</p>	5	
<p>(1) 完全限定域名: (评分要点: 主机名和域名不需要区分大小写, 完成主机名为 “InsideCli”。)</p>		



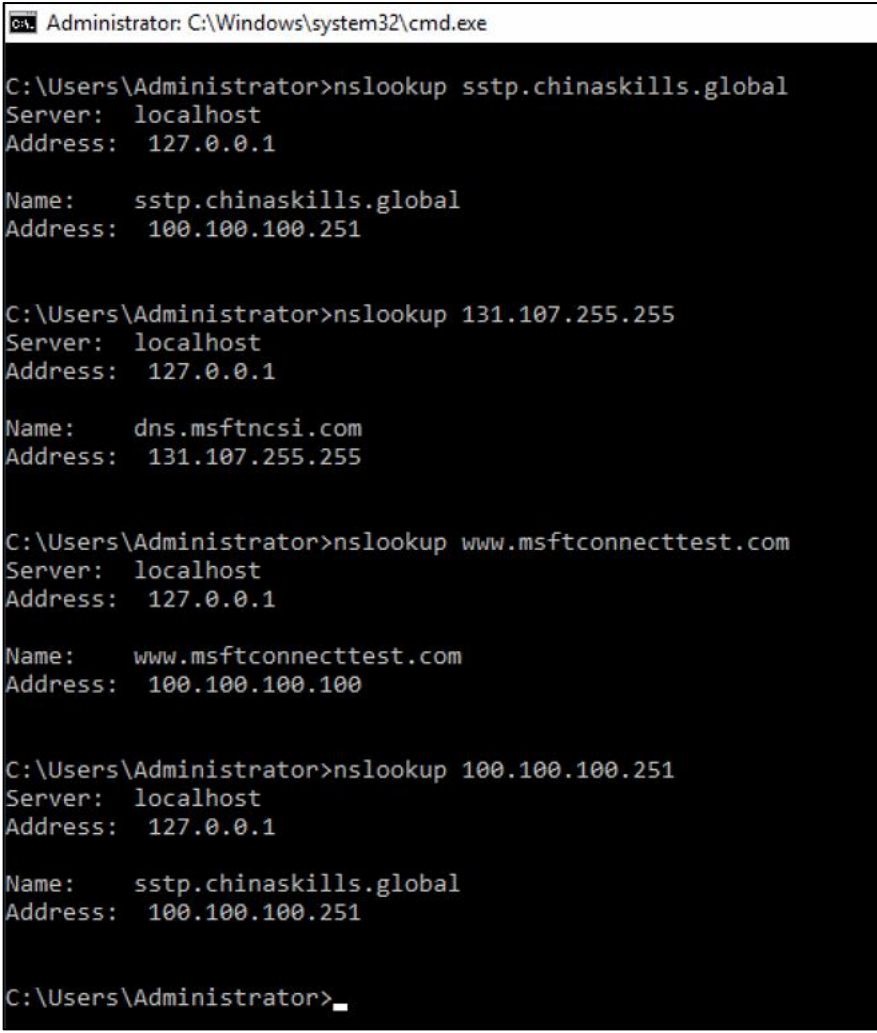


(2) 网络地址/掩码/网关/DNS: (评分要点: IP 地址为 192.168.0.X(X 为任意数字), 掩码为 255.255.255.0, 网关地址为 192.168.0.254, DNS 设置为 192.168.100.100 和 192.168.100.200。)

 <pre> C:\Windows\system32\cmd.exe Ethernet adapter Ethernet0:      Connection-specific DNS Suffix  . : chinaskills.cn     Description . . . . . : Intel(R) 82574L Gigabit Network Connection     Physical Address. . . . . : 00-0C-29-67-DC-2E     DHCP Enabled. . . . . : Yes     Autoconfiguration Enabled . . . . : Yes     Link-local IPv6 Address . . . . . : fe80::592e:3746:48ce:33bf%2(Preferred)     IPv4 Address. . . . . : 192.168.0.100(Preferred)     Subnet Mask . . . . . : 255.255.255.0     Lease Obtained. . . . . : Tuesday, June 15, 2021 11:17:33 AM     Lease Expires . . . . . : Wednesday, June 23, 2021 11:27:46 AM     Default Gateway . . . . . : 192.168.0.254     DHCP Server . . . . . : 192.168.200.100     DHCPv6 IAID . . . . . : 117443625     DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D4-4E-00-0C-29-67-DC-2E     DNS Servers . . . . . : 192.168.100.100                            : 192.168.100.200     NetBIOS over Tcpip. . . . . : Enabled  Ethernet adapter Bluetooth Network Connection:      Media State . . . . . : Media disconnected     Connection-specific DNS Suffix  . :     Description . . . . . : Bluetooth Device (Personal Area Network)     Physical Address. . . . . : 74-D8-3E-C5-62-5E     DHCP Enabled. . . . . : Yes     Autoconfiguration Enabled . . . . : Yes  C:\Users\it01&gt;_ </pre>		
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ISPSRV 工作任务（38 分）

评分要点	分值	评分
1、DNS：（1）创建必要的正向和反向区域，并添加对应的 A 记录和 PRT 记录：（在 ispsrv 上使用 nslookup 测试必要的 a 记录和 prt 记录）【10 分】（2）创建 test1.com~test100.com 的域名解析。（在 ispsrv 上打开 powershell 并执行执行：get-dnsserverzone   findstr.exe test   measure,	20	

执行成功再执行：nslookup test48.com) 【10 分】		
(1) 创建必要的正向和反向区域，并添加对应的 A 记录和 PTR 记录：(评分要点：至少能够解析 sstp.chinaskills.global->100.100.100.251; 131.107.255.25->dns.msftncsi.com; www.msftconnecttest.com->100.100.100.100; 100.100.100.100.251->sstp.chinaskills.global。)		
 <pre>Administrator: C:\Windows\system32\cmd.exe  C:\Users\Administrator&gt;nslookup sstp.chinaskills.global Server: localhost Address: 127.0.0.1  Name: sstp.chinaskills.global Address: 100.100.100.251  C:\Users\Administrator&gt;nslookup 131.107.255.255 Server: localhost Address: 127.0.0.1  Name: dns.msftncsi.com Address: 131.107.255.255  C:\Users\Administrator&gt;nslookup www.msftconnecttest.com Server: localhost Address: 127.0.0.1  Name: www.msftconnecttest.com Address: 100.100.100.100  C:\Users\Administrator&gt;nslookup 100.100.100.251 Server: localhost Address: 127.0.0.1  Name: sstp.chinaskills.global Address: 100.100.100.251  C:\Users\Administrator&gt;</pre>		
(2) 创建 test1.com~test100.com 的域名解析：(评分要点：通过筛选，Count 的数量不能少于 101；nslookup test48.com 需要解析到 100.100.100.100 这个地址。)		

```
PS C:\Users\Administrator> Get-DnsServerZone | findstr.exe test | measure
```

```
Count      : 101
Average    :
Sum        :
Maximum    :
Minimum    :
Property   :
```

```
PS C:\Users\Administrator> nslookup test48.com
Server: localhost
Address: 127.0.0.1
```

```
Name:     test48.com
Address:  100.100.100.100
```

2、DHCP：（1）DHCP 地址池信息；（查看配置）【2 分】（2）DHCP 网关和 DNS 选项；（查看配置）【2 分】（3）分配固定地址；（查看配置）【2 分】（4）仅允许 OutsideCli 获取地址；（查看配置）【3 分】（5）dhcp 备份。（查看配置）【3 分】

12

（1）DHCP 地址池信息：（评分要点：地址池范围在 100.100.100.10-100.100.100.50。）

DHCP	Start IP Address	End IP Address	Description
ispsrv	100.100.100.10	100.100.100.50	Address range for distribution
IPv4			
Server Options			
Scope [100.100.100.0] internet_pool			
Address Pool			

（2）DHCP 网关和 DNS 选项：（评分要点：网关地址设置为 100.100.100.254，dns 设置为 100.100.100.100。）

DHCP	Option Name	Vendor	Value	Policy Name
ispsrv	003 Router	Standard	100.100.100.254	None
IPv4	006 DNS Servers	Standard	100.100.100.100	None
Server Options				
Scope [100.100.100.0] internet_pool				
Address Pool				
Address Leases				
Reservations				
Scope Options				
Policies				

（3）分配固定地址：（评分要点：固定分配地址为 100.100.100.49。）

DHCP

ispsrv

IPv4

Server Options

Scope [100.100.100.0] internet\_pool

Address Pool

Address Leases

Reservations

[100.100.100.49] OutsideCli

Scope Options

Policies

Policies

Filters

IPv6

Option Name

Vendor

Value

Class / Policy Name

003 Router

Standard

100.100.100.254

None

006 DNS Servers

Standard

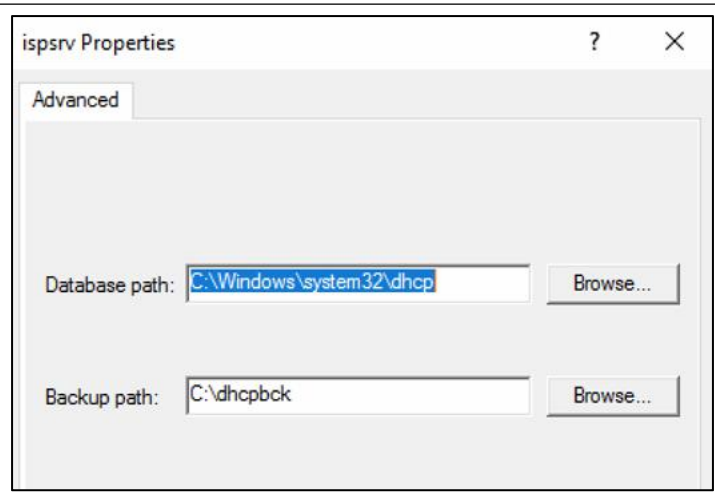
100.100.100.100

None

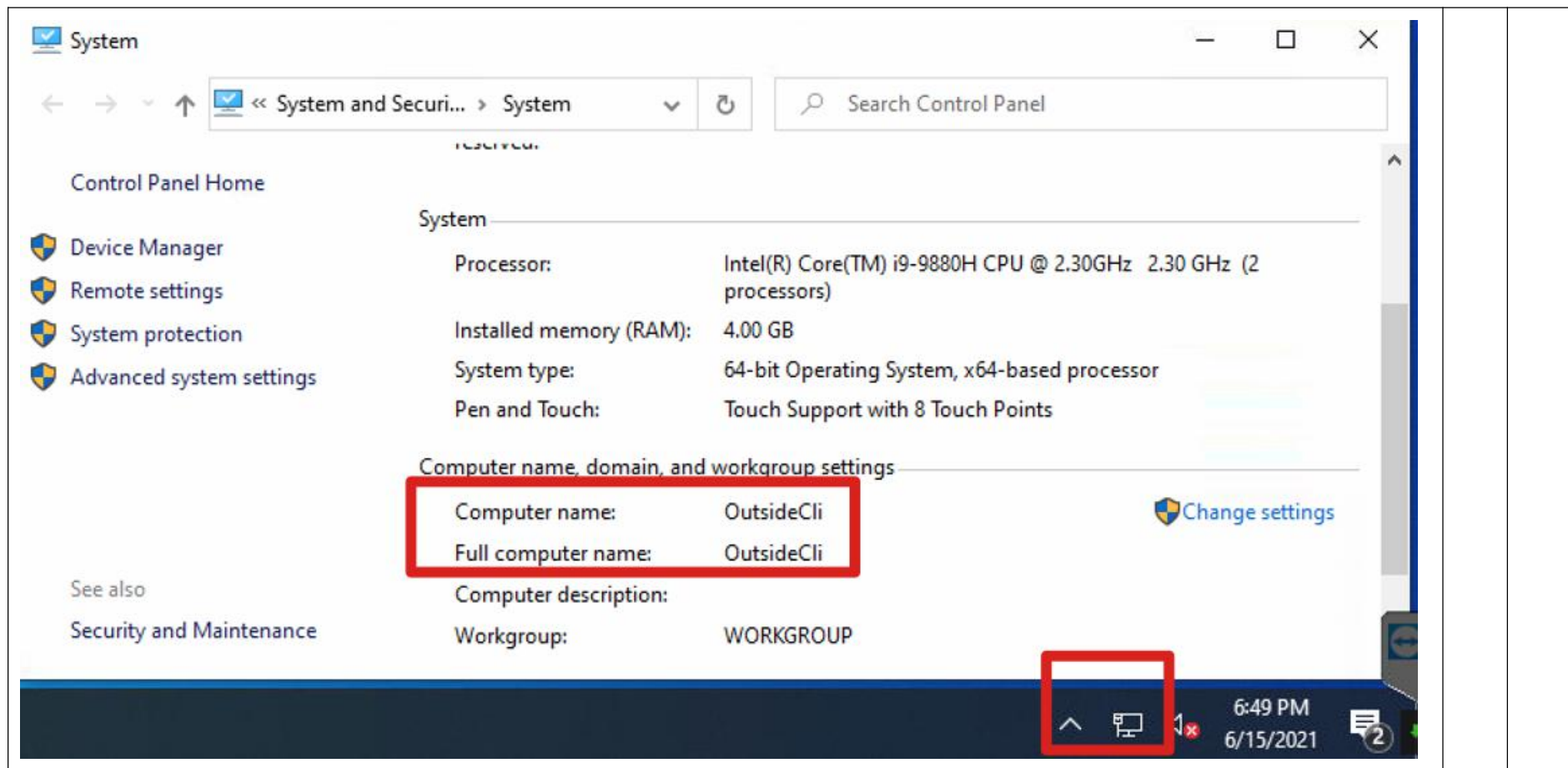
(4) 仅允许 OutsideCli 获取地址：
 (评分要点：存在 MAC 筛选规则。)

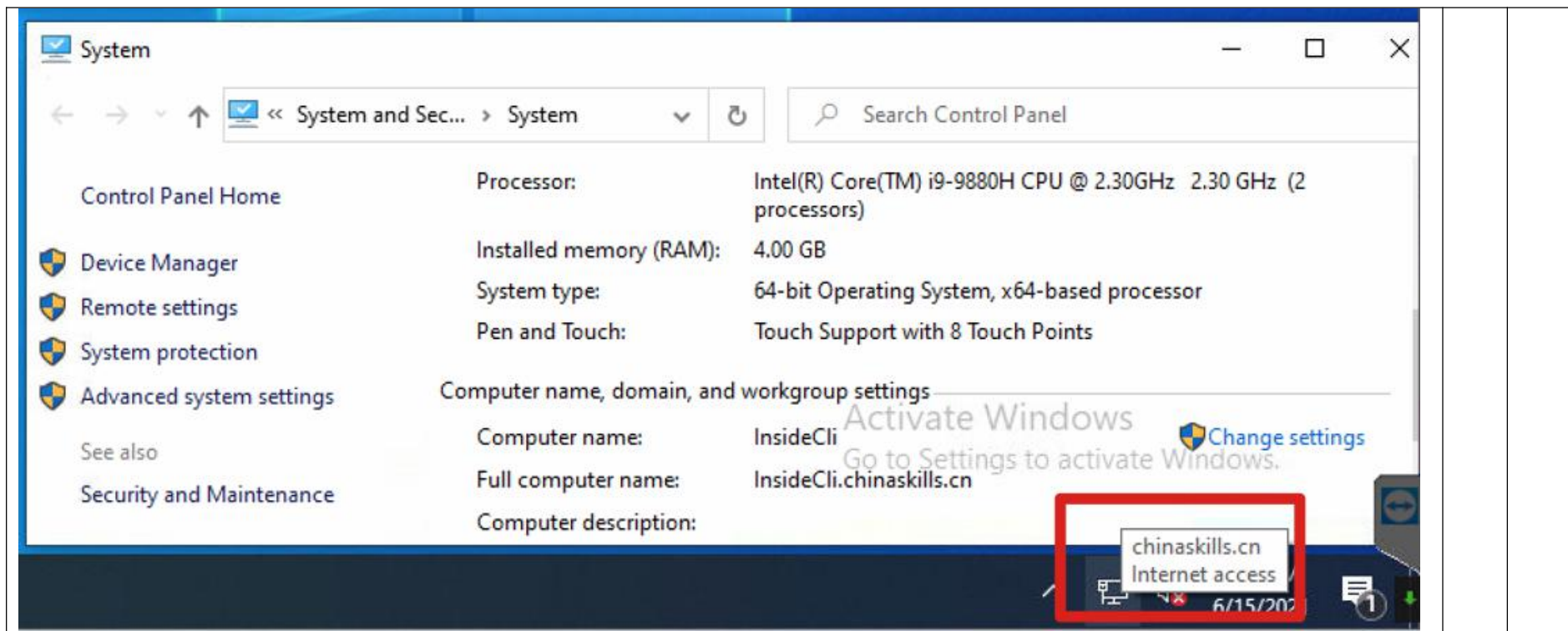
	<table> <thead> <tr> <th>MAC Address</th><th>Description</th></tr> </thead> <tbody> <tr> <td>00-0C-29-A8-DD-FF</td><td>OutsideCli</td></tr> </tbody> </table>	MAC Address	Description	00-0C-29-A8-DD-FF	OutsideCli
MAC Address	Description				
00-0C-29-A8-DD-FF	OutsideCli				

(5) dhcp 备份：
 (评分要点：DHCP 备份目录设置为 c:\dhcpbck。)

			
3、互联网检测服务：（1）在 OutsideCli 和 InsideCli 上功能性测试：（查看功能展示图）【6 分】		6	
（1）在 OutsideCli 和 InsideCli 上功能性测试：（评分要点：在 OutsideCli 和 Insidecli 上的任务栏中显示 Internet Access 图标。）			







# ROUTERSRV 工作任务（35 分）

评分要点	分值	评分
1、路由功能：（1）开启路由转发；（在 InsideCli 上使用 ping 测试 dc1 和 appsrv 的连通性。）【2 分】（2）配置网络地址转换；（在 insidecli 上使用 ping 测试 ispsrv 的连通性，然后再 routersrv 上查看 nat 转换信息。）【3 分】	5	
（1）开启路由转发：（评分要点：在 Insidecli 上 ping 192.168.100.100 和 192.168.200.100 均成功。）		

```

C:\Windows\system32\cmd.exe
C:\Users\it01>ncpa.cpl

C:\Users\it01>ping 192.168.100.100

Pinging 192.168.100.100 with 32 bytes of data:
Reply from 192.168.100.100: bytes=32 time=1ms TTL=127
Reply from 192.168.100.100: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.100.100:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
Control-C
^C
C:\Users\it01>ping 192.168.200.100

Pinging 192.168.200.100 with 32 bytes of data:
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.200.100:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

```

(2) 配置网络地址转换: (评分要点: 在 Insidecli 上 ping 100.100.100.100 成功, 然后查看 nat 转换状态, 存在内部和外部的转换信息。)

```

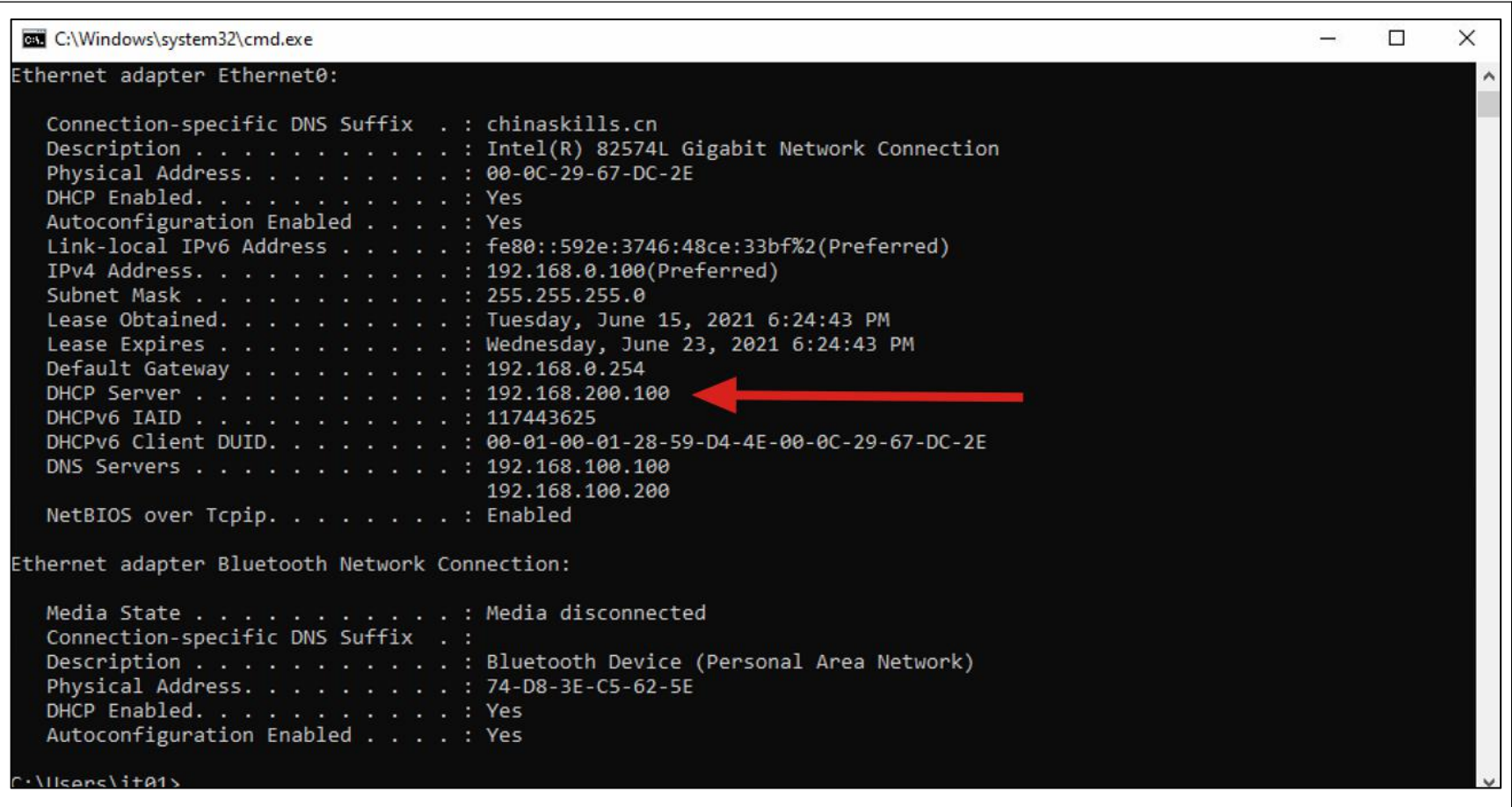
C:\Users\it01>ping 100.100.100.100

Pinging 100.100.100.100 with 32 bytes of data:
Reply from 100.100.100.100: bytes=32 time<1ms TTL=127
Reply from 100.100.100.100: bytes=32 time<1ms TTL=127
Reply from 100.100.100.100: bytes=32 time<1ms TTL=127
Reply from 100.100.100.100: bytes=32 time<1ms TTL=127

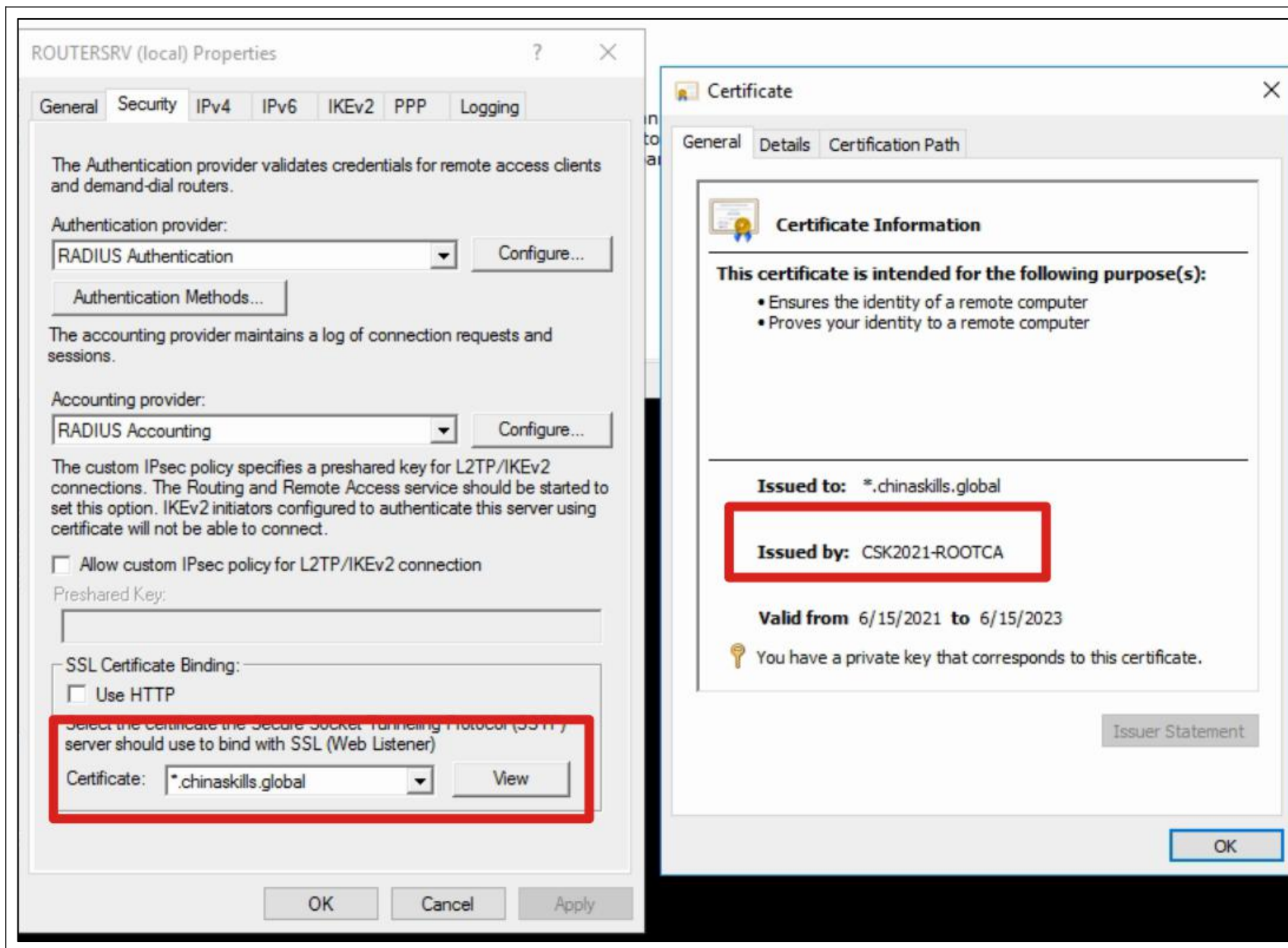
Ping statistics for 100.100.100.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

```

<div><div>Routing and Remote Access</div><div>File Action View Help</div><div><div>Routing and Remote Access</div><div>Server Status</div><div>ROUTERSRV (local)</div><div>Network Interfaces</div><div>Ports</div><div>Remote Access Clients (0)</div><div>Remote Access Logging</div><div>IPv4</div><div>General</div><div>Static Routes</div><div>DHCP Relay Agent</div><div>IGMP</div><div>NAT</div><div>IPv6</div><div>General</div><div>Static Routes</div></div><div><div>NAT</div><table><thead><tr><th>Interface</th><th>Total mappings</th><th>Inbound packets translated</th><th>Inbound packets rejected</th><th>Outbound packets translated</th><th>Outbound packets rejected</th></tr></thead><tbody><tr><td>Ethernet3</td><td>9</td><td>1,200</td><td>0</td><td>1,821</td><td>0</td></tr><tr><td>Ethernet2</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Ethernet1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Ethernet0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></tbody></table></div></div>	Interface	Total mappings	Inbound packets translated	Inbound packets rejected	Outbound packets translated	Outbound packets rejected	Ethernet3	9	1,200	0	1,821	0	Ethernet2	0	0	0	0	0	Ethernet1	0	0	0	0	0	Ethernet0	0	0	0	0	0		
Interface	Total mappings	Inbound packets translated	Inbound packets rejected	Outbound packets translated	Outbound packets rejected																											
Ethernet3	9	1,200	0	1,821	0																											
Ethernet2	0	0	0	0	0																											
Ethernet1	0	0	0	0	0																											
Ethernet0	0	0	0	0	0																											
2、DHCP 中继：（1）启用 DHCP 中继，客户端成功获取地址。（在 insidecli 上执行指令 ipconfig /all）【3 分】	3																															
（1）启用 DHCP 中继，客户端成功获取地址：（评分要点：Insidecli 客户端能通过 192.168.200.100 的 dhcp 服务器获取地址。）																																

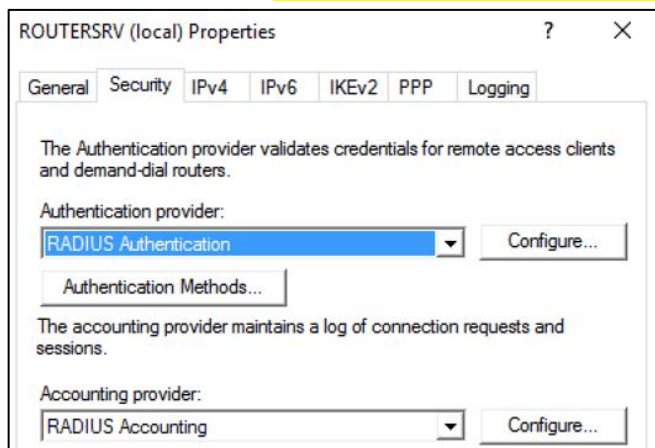
 <pre> C:\Windows\system32\cmd.exe Ethernet adapter Ethernet0:      Connection-specific DNS Suffix  . : chinaskills.cn     Description . . . . . : Intel(R) 82574L Gigabit Network Connection     Physical Address. . . . . : 00-0C-29-67-DC-2E     DHCP Enabled. . . . . : Yes     Autoconfiguration Enabled . . . . : Yes     Link-local IPv6 Address . . . . . : fe80::592e:3746:48ce:33bf%2(Preferred)     IPv4 Address. . . . . : 192.168.0.100(Preferred)     Subnet Mask . . . . . : 255.255.255.0     Lease Obtained. . . . . : Tuesday, June 15, 2021 6:24:43 PM     Lease Expires . . . . . : Wednesday, June 23, 2021 6:24:43 PM     Default Gateway . . . . . : 192.168.0.254     DHCP Server . . . . . : 192.168.200.100     DHCPv6 IAID . . . . . : 117443625     DHCPv6 Client DUID. . . . . : 00-01-00-01-28-59-D4-4E-00-0C-29-67-DC-2E     DNS Servers . . . . . : 192.168.100.100                            : 192.168.100.200     NetBIOS over Tcpip. . . . . : Enabled  Ethernet adapter Bluetooth Network Connection:      Media State . . . . . : Media disconnected     Connection-specific DNS Suffix  . :     Description . . . . . : Bluetooth Device (Personal Area Network)     Physical Address. . . . . : 74-D8-3E-C5-62-5E     DHCP Enabled. . . . . : Yes     Autoconfiguration Enabled . . . . : Yes  C:\Users\it01&gt; </pre>		
<p>3、虚拟专用网络：（1）启用 SSTPVPN，并检查证书来源：（查看 SSTPVPN 证书调用，查看证书颁发者信息。）【3 分】；（2）配置 NPS 认证：（查看 SSTPVPN 调用 NPS 认证。）【2 分】；（3）查看 VPN 客户端地址池。（查看配置）【2 分】</p>	7	
<p>（1）启用 SSTPVPN，并检查证书来源：（评分要点：SSTPVPN 的证书由 CSK2021-ROOTCA 颁发。）</p>		



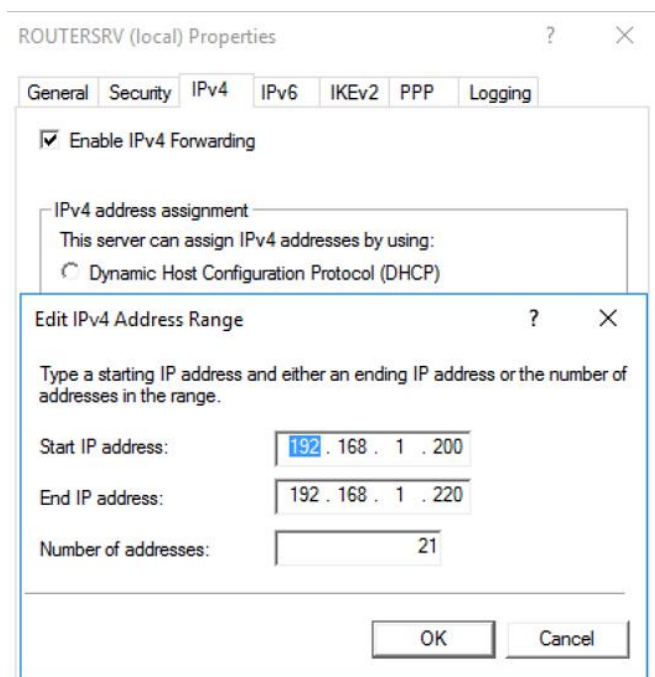




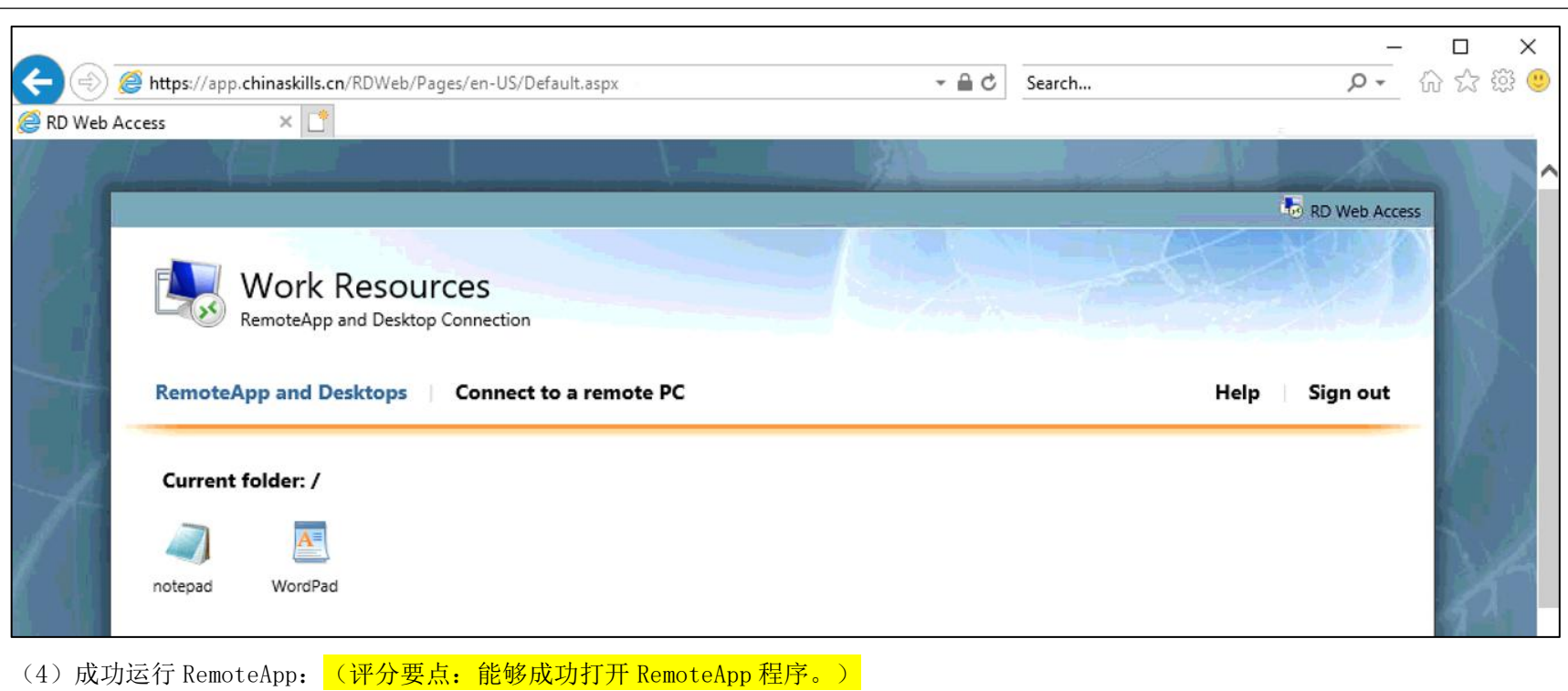
(2) 配置 NPS 认证: (评分要点: Authentication 和 Accounting 均交给 RADIUS 进行管理。)



(3) 查看 VPN 客户端地址池: (评分要点: VPN 地址池范围为 192.168.1.200-192.168.1.220)

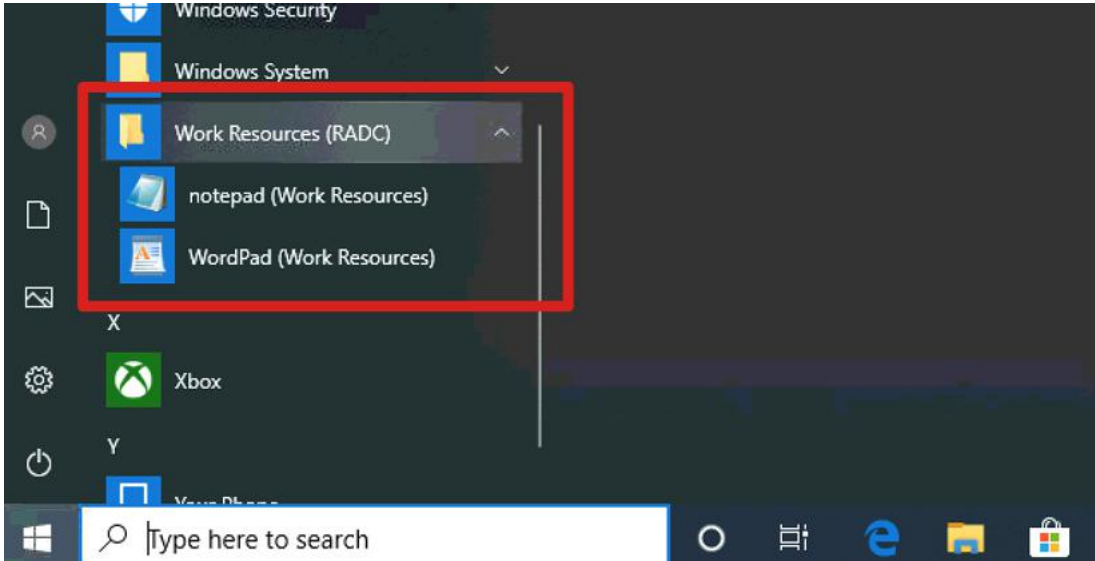


4、RDS：（1）RdWeb 服务器；【2 分】（在 RouterSrv 上打开 Server Manager 面板，找到 Deployment Servers）（2）RDS 资源服务器；（在 RouterSrv 上打开 Server Manager 面板，找到 Deployment Servers）【2 分】（3）浏览器访问 RDS；（在 Insidecli 上使用浏览器访问 RDS 站点，并成功登录。）【5 分】；（4）成功运行 RemoteApp；（运行成功后，截图需要记录 notepad 截面+任务栏图标）【5 分】（5）开始菜单访问 RemoteApp。（在开始菜单中找到对应的 RemoteApp 程序）【6 分】	20																	
<p>（1）RdWeb 服务器：（评分要点：RouterSrv 为 RD Web Access 服务器。）</p> <div><div>DEPLOYMENT SERVERS</div><div>Last refreshed on 6/15/2021 12:09:58 PM   All RDS role services   3 total</div><div><div>Filter</div><div><div></div><div></div><div></div></div></div><table><thead><tr><th>Server FQDN</th><th>Installed Role Service</th></tr></thead><tbody><tr><td>APPSRV.CHINASKILLS.CN</td><td>RD Connection Broker</td></tr><tr><td>APPSRV.CHINASKILLS.CN</td><td>RD Session Host</td></tr><tr><td>RouterSrv.chinaskills.cn</td><td>RD Web Access</td></tr></tbody></table></div> <p>（2）RDS 资源服务器：（评分要点：APPSRV 为 RD Connection Broker 和 RD Session Host 服务器。）</p> <div><div>DEPLOYMENT SERVERS</div><div>Last refreshed on 6/15/2021 12:09:58 PM   All RDS role services   3 total</div><div><div>Filter</div><div><div></div><div></div><div></div></div><div>TASKS</div><div></div></div><table><thead><tr><th>Server FQDN</th><th>Installed Role Service</th></tr></thead><tbody><tr><td>APPSRV.CHINASKILLS.CN</td><td>RD Connection Broker</td></tr><tr><td>APPSRV.CHINASKILLS.CN</td><td>RD Session Host</td></tr><tr><td>RouterSrv.chinaskills.cn</td><td>RD Web Access</td></tr></tbody></table></div> <p>（3）浏览器访问 RDS：（评分要点：在 RDS 页面能够看到存在 notepad 和 WordPad 程序。）</p>	Server FQDN	Installed Role Service	APPSRV.CHINASKILLS.CN	RD Connection Broker	APPSRV.CHINASKILLS.CN	RD Session Host	RouterSrv.chinaskills.cn	RD Web Access	Server FQDN	Installed Role Service	APPSRV.CHINASKILLS.CN	RD Connection Broker	APPSRV.CHINASKILLS.CN	RD Session Host	RouterSrv.chinaskills.cn	RD Web Access		
Server FQDN	Installed Role Service																	
APPSRV.CHINASKILLS.CN	RD Connection Broker																	
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Server FQDN	Installed Role Service																	
APPSRV.CHINASKILLS.CN	RD Connection Broker																	
APPSRV.CHINASKILLS.CN	RD Session Host																	
RouterSrv.chinaskills.cn	RD Web Access																	

 <p>(4) 成功运行 RemoteApp: (评分要点: 能够成功打开 RemoteApp 程序。)</p>	
--	--

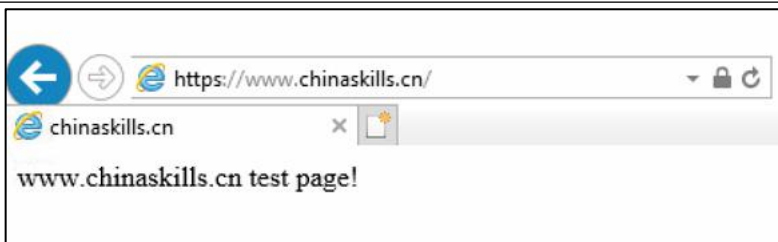
The screenshot shows a web browser window with the address <https://app.chinaskills.cn/RDWeb/Pages/en-US/Default.aspx>. The page title is 'RD Web Access'. The main content area is titled 'Work Resources' and 'RemoteApp and Desktop Connection'. It features a sidebar with 'Current folder: /' and icons for 'notepad' and 'WordPad'. A 'Connect to a remote PC' button is visible. A 'Help' and 'Sign out' link is in the top right. A 'Close window' button is at the bottom center. A red arrow points to the taskbar icon for the Notepad application.

(5) 开始菜单访问 RemoteApp: (评分要点: 在开始菜单的 Work Resources (RADC) 中能够找到 notepad 和 wordpad 程序。)

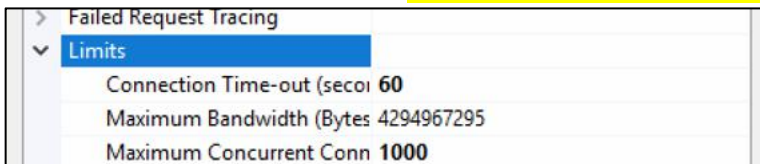
		
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## APPSRV 工作任务（78 分）

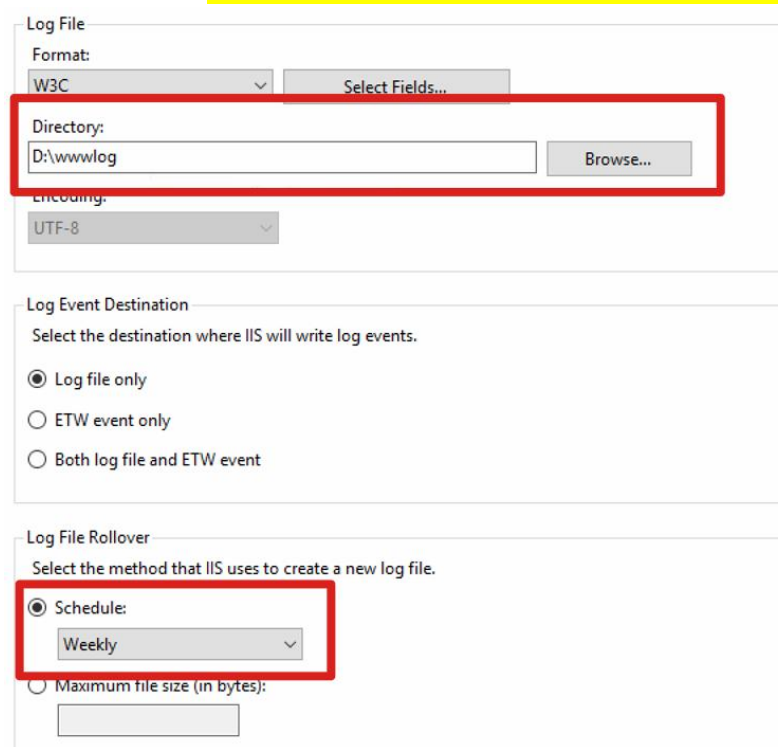
评分要点	分 值	评 分
<p>1、万维网服务：（1）启用 HTTPS 站点（在 Insidecli 上只用浏览器访问 <a href="https://www.chinaskills.cn/">https://www.chinaskills.cn/</a>）；【2 分】（2）网站最大连接数+超时时间；（查看配置）【5 分】（3）日志管理；（查看配置）【5 分】（4）仅允许一个会话访问 ftp 服务；（在 insidecli 上打开两个 cmd 界面，启用个界面成功登录到 ftp，然后再用另一个 cmd 访问 ftp。）【5 分】（5）ftp chroot 功能；（在 insidecli 上使用 cmd 访问 ftp，登录成功后执行 pwd。）【3 分】（6）FTP 登录 banner。（在 insidecli 上使用 cmd 访问 ftp，登录成功后执行 pwd。）【2 分】（7）Plus+测试页面；（在 Insidecli 上只用浏览器访问 <a href="https://www.chinaskills.cn/wwwplus+.html">https://www.chinaskills.cn/wwwplus+.html</a>）【10 分】</p>	32	
<p>（1）启用 HTTPS 站点：（评分要点：站点证书不存在不信任等问题，页面内容正确。）</p>		



(2) 网站最大连接数+超时时间: (评分要点: Maximum Concurrent 设置为 1000, Connection Time-out 设置为 60。)

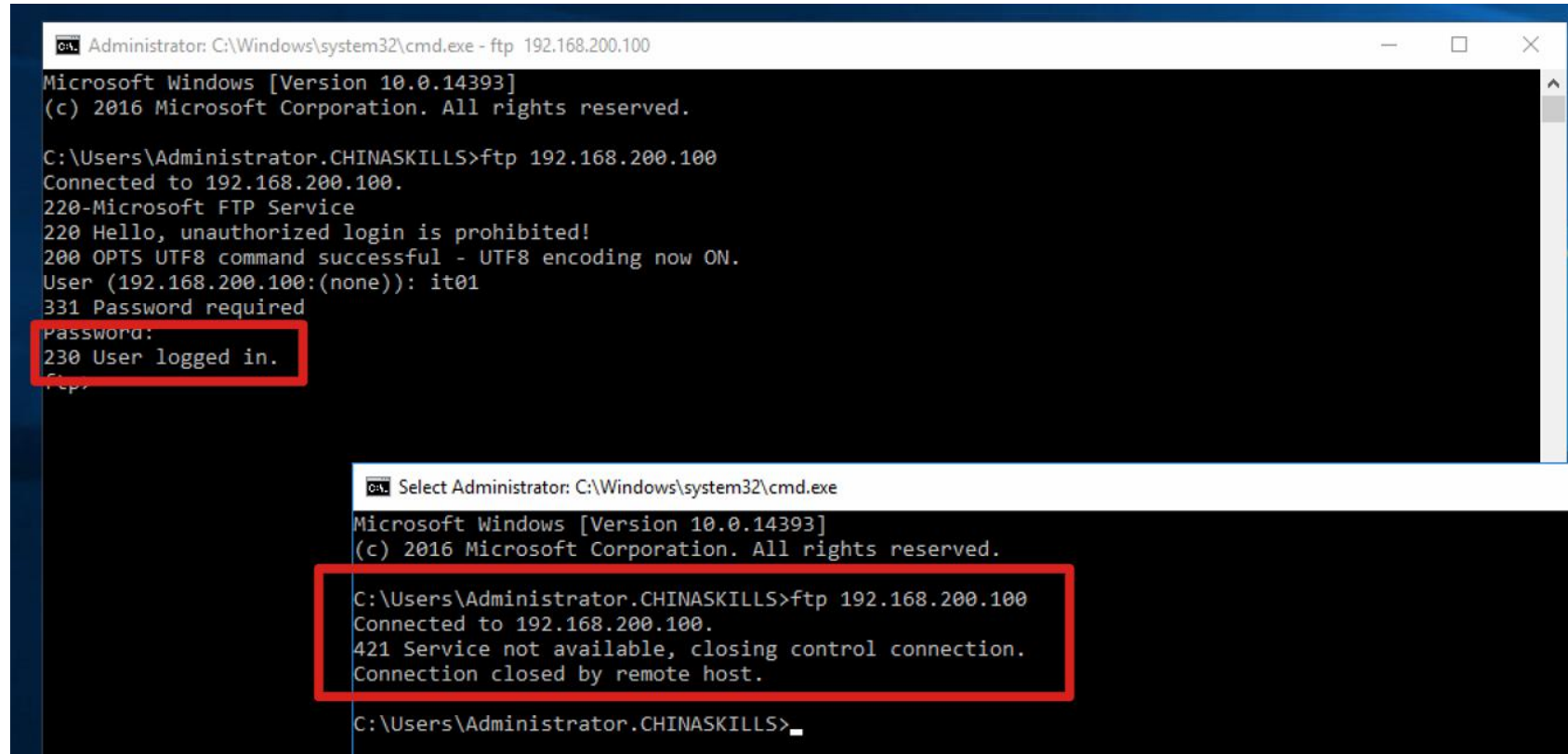


(3) 日志管理: (评分要点: 网站日志目录设置为 d:\wwwlog, 日志文件切割设置为 Weekly。)





(4) 仅允许一个会话访问 ftp 服务: (评分要点: 打开 ftp 会话, 其中一个正常登陆显示 “230 User logged in.”, 另一个会话则提示 421。)



```
Administrator: C:\Windows\system32\cmd.exe - ftp 192.168.200.100
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.CHINASKILLS>ftp 192.168.200.100
Connected to 192.168.200.100.
220-Microsoft FTP Service
220 Hello, unauthorized login is prohibited!
200 OPTS UTF8 command successful - UTF8 encoding now ON.
User (192.168.200.100:(none)): it01
331 Password required
Password:
230 User logged in.
ftp>

Select Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.CHINASKILLS>ftp 192.168.200.100
Connected to 192.168.200.100.
421 Service not available, closing control connection.
Connection closed by remote host.

C:\Users\Administrator.CHINASKILLS>
```

(5) ftp chroot 功能: (评分要点: 执行 pwd 后提示 “257 “/” is current directory.”)

```
C:\Users\Administrator.CHINASKILLS>ftp 192.168.200.100
Connected to 192.168.200.100.
220-Microsoft FTP Service
220 Hello, unauthorized login is prohibited!
200 OPTS UTF8 command successful - UTF8 encoding now ON.
User (192.168.200.100:(none)): it01
331 Password required
Password:
230 User logged in.
ftp> pwd
257 "/" is current directory.
ftp>
```

(6) FTP 登录 banner: (评分要点: 在登录提示信息中能够找到“220 Hello, unauthorized login is prohibited!”语句。)

```
C:\Users\Administrator.CHINASKILLS>ftp 192.168.200.100
Connected to 192.168.200.100.
220-Microsoft FTP Service
220 Hello, unauthorized login is prohibited!
200 OPTS UTF8 command successful - UTF8 encoding now ON.
User (192.168.200.100:(none)): it01
331 Password required
Password:
230 User logged in.
ftp> pwd
257 "/" is current directory.
ftp>
```

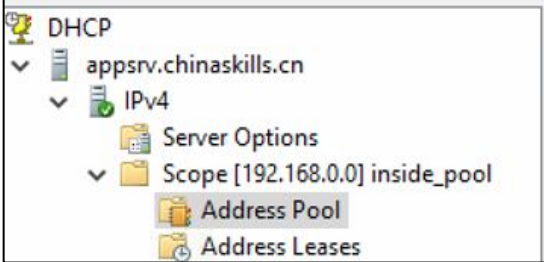
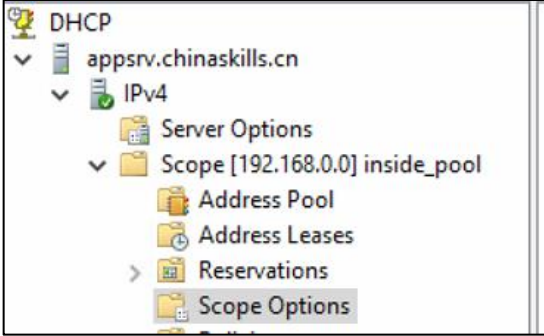
(7) Plus+测试页面: (评分要点: 要求网站路径必须包含 wwwplus+.html 信息; 要求页面内容保持一致。)

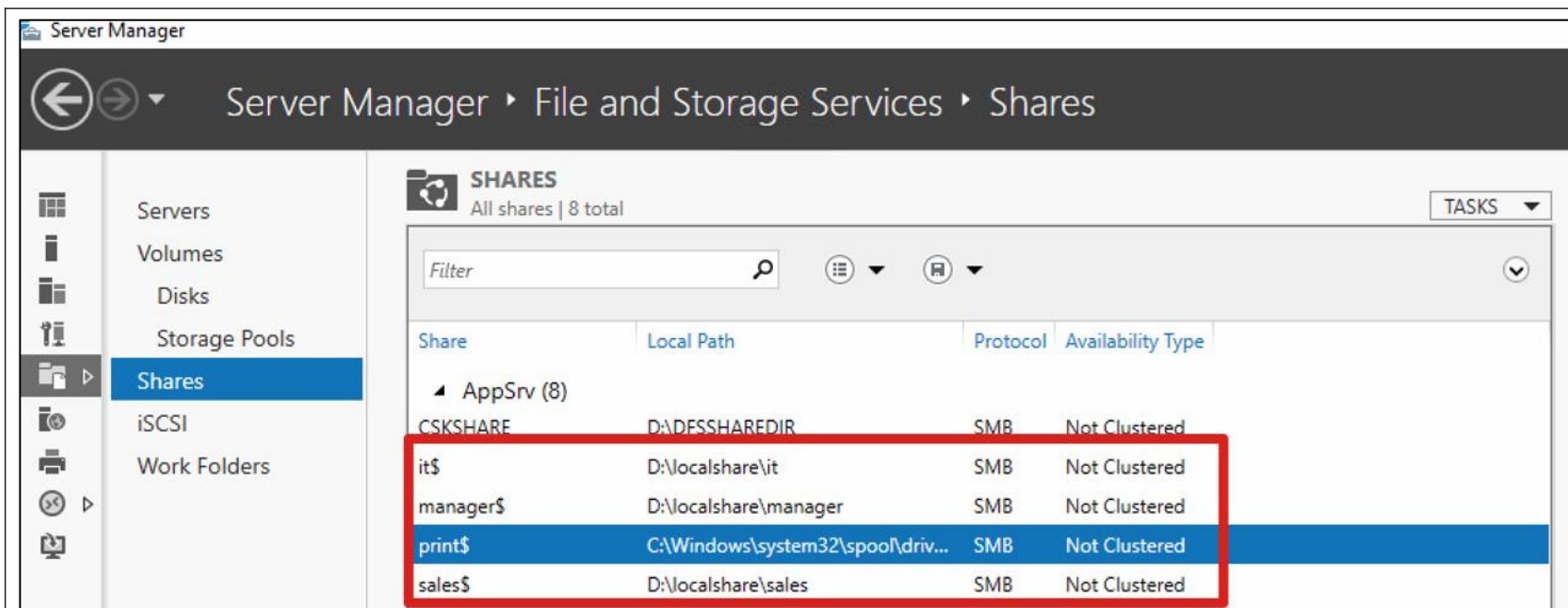


2、动态地址分配服务: (1) 配置地址池; (查看配置) 【2分】 (2) 网关和 dns 选项。 (查看配置) 【3分】

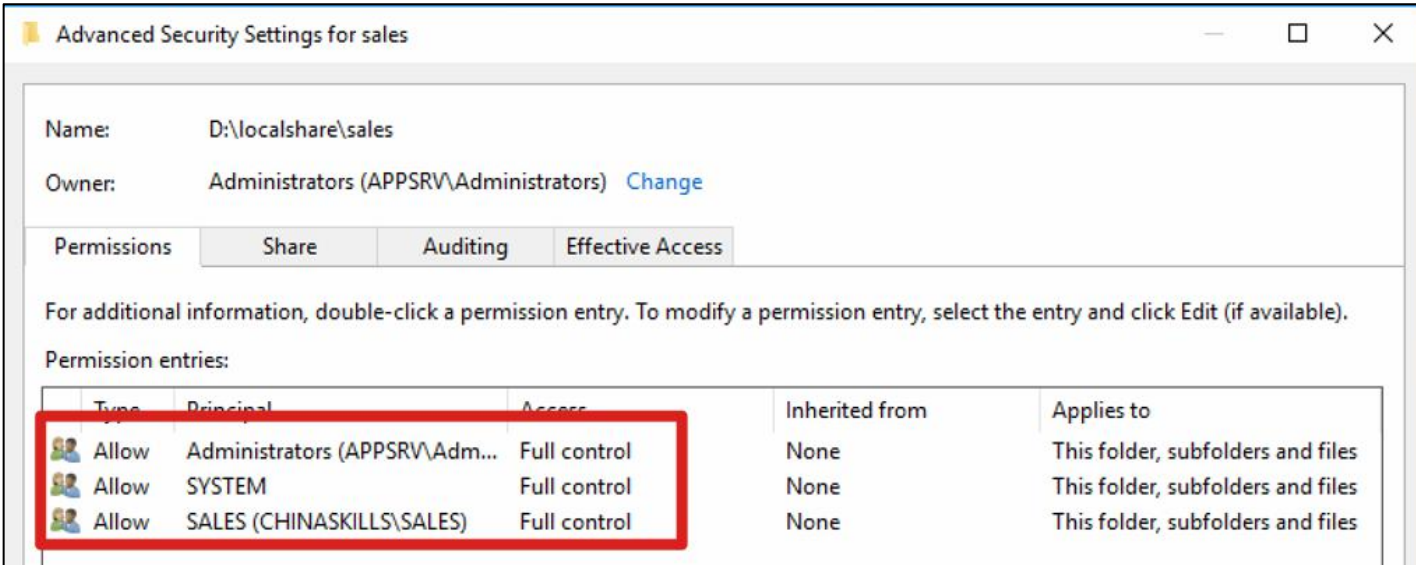
5

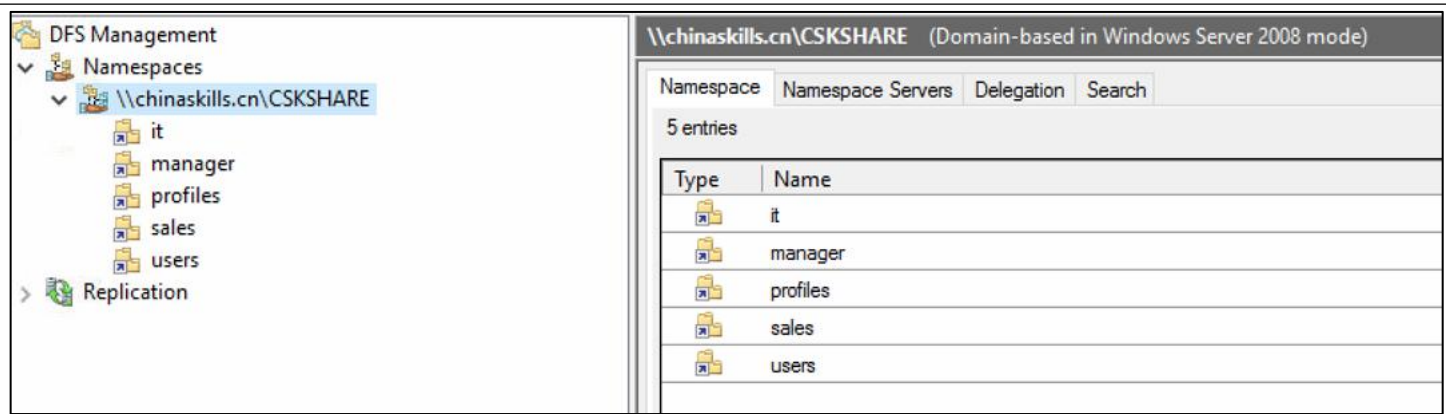
(1) 配置地址池: (评分要点: 地址池范围为 192.168.0.100-192.168.0.200)

	<table><thead><tr><th>Start IP Address</th><th>End IP Address</th><th>Description</th></tr></thead><tbody><tr><td>192.168.0.100</td><td>192.168.0.200</td><td>Address range for distribution</td></tr></tbody></table>	Start IP Address	End IP Address	Description	192.168.0.100	192.168.0.200	Address range for distribution												
Start IP Address	End IP Address	Description																	
192.168.0.100	192.168.0.200	Address range for distribution																	
(2) 网关和 dns 选项: (评分要点: 网关设置为 192.168.0.254, dns 设置为 192.168.100.100 和 192.168.100.200。)																			
	<table><thead><tr><th>Option Name</th><th>Vendor</th><th>Value</th><th>Policy Name</th></tr></thead><tbody><tr><td>003 Router</td><td>Standard</td><td>192.168.0.254</td><td>None</td></tr><tr><td>006 DNS Servers</td><td>Standard</td><td>192.168.100.100, 192.168.100.200</td><td>None</td></tr><tr><td>015 DNS Domain Name</td><td>Standard</td><td>chinaskills.cn</td><td>None</td></tr></tbody></table>	Option Name	Vendor	Value	Policy Name	003 Router	Standard	192.168.0.254	None	006 DNS Servers	Standard	192.168.100.100, 192.168.100.200	None	015 DNS Domain Name	Standard	chinaskills.cn	None		
Option Name	Vendor	Value	Policy Name																
003 Router	Standard	192.168.0.254	None																
006 DNS Servers	Standard	192.168.100.100, 192.168.100.200	None																
015 DNS Domain Name	Standard	chinaskills.cn	None																
3、Local File Share: (1) 本地文件共享; (打开服务器管理器->文件和存储服务->共享。)【3分】(2) 配置权限; (打开 sales 文件共享的 ntfs 权限页面)【5分】																			
(1) 本地文件共享: (评分要点: 存在 it\$, manager\$, sales\$文件共享, 并且要求目录一致。)																			
		8																	

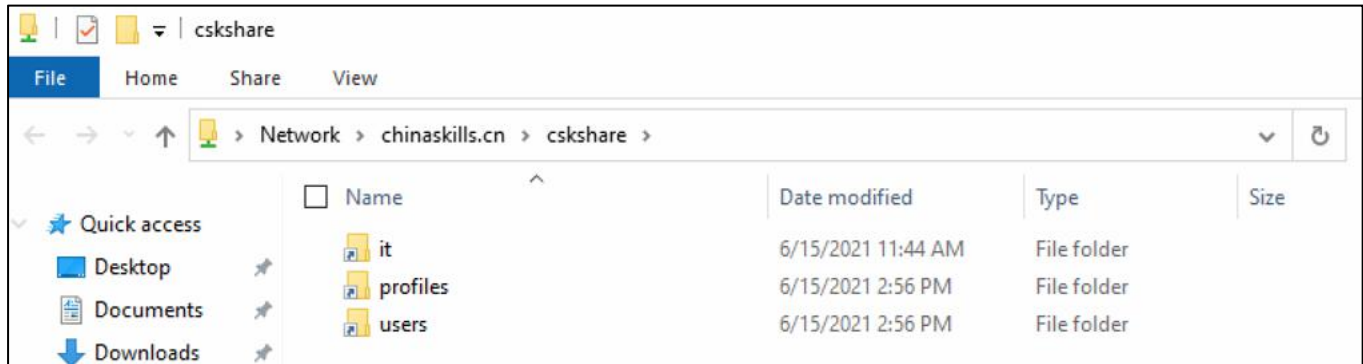


(2) 配置权限: (评分要点: NTFS 权限仅对 Administrators 和 SALES 进行授权 (SYSTEM 忽略), 且权限设置为 Full control。)

		
<p>4、DFS：（1）DFS命名空间；（在appsrv上打开powershell执行执行：get-dfsroottarget -path \\chinaskills.cn\cskshare,然后再执行：get-smbshare -name cskshare）【3分】（2）部门共享文件；（在appsrv上打开dfs管理器页面，列出所有dfs共享文件夹。）【2分】（3）启用共享枚举。（在insidecli上使用IT组成员访问\\chinaskills.cn\cskshare）【5分】</p>	10	
<p>（1）DFS 命名空间：（评分要点：存在\\chinaskills.cn\CSKshare 的 DFS 共享，并且 CSKSHARE 共享的物理路径为 D:\DFSSHAREDIR。）</p> <pre> PS C:\Users\Administrator.CHINASKILLS&gt; Get-DfsnRootTarget -Path \\chinaskills.cn\CSKshare  Path                TargetPath                State ReferralPriorityClass ReferralPriorityRank ----                - \\chinaskills.cn\CSKshare  \\APPSRV.chinaskills.cn\CSKSHARE Online sitecost-normal 0  PS C:\Users\Administrator.CHINASKILLS&gt; Get-SmbShare -Name cskshare  Name    ScopeName Path            Description ----    - CSKSHARE *      D:\DFSSHAREDIR </pre> <p>（2）部门共享：（评分要点：在 DFS 控制台中能够找到 it, manage, sales 文件夹。）</p>		

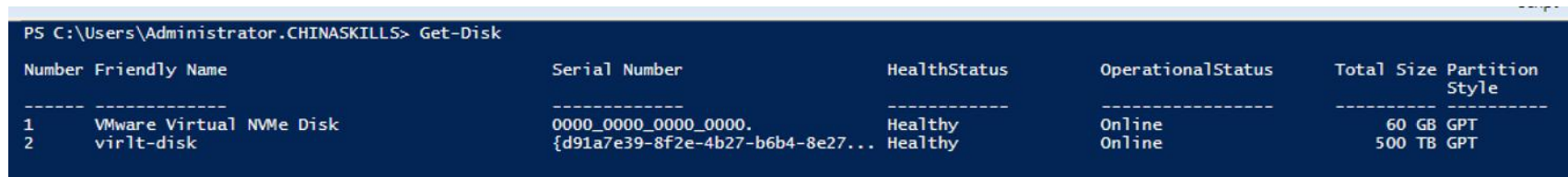


(3) 启用共享枚举: (评分要点: 客户端访问\\chinaskills.cn、cskshare 只能看到 it 部门共享, 看不到 sales 和 manager 部门共享。如果第二点没有完成第三点不做评分。)



5、磁盘管理: (1) 500TB 磁盘; (在 Appsrv 上打开 powershell 执行指令: get-disk) 【5 分】(2) 挂载到 D 卷。(在 Appsrv 上打开 powershell 执行指令: get-volume -driveletter D) 【3 分】

(1) 500TB 磁盘: (评分要点: 能够在输出结果中找到一个 500TB 的虚拟硬盘。)



(2) 挂载到 D 卷: (评分要点: 挂载到 D 卷并且 FileSystemLabel 设置为 iSCSI。)



DriveLetter	FileSystemLabel	FileSystem	DriveType	HealthStatus	OperationalStatus	SizeRemaining	Size
D	iSCSI	NTFS	Fixed	Healthy	OK	48.9 GB	50 GB

7

Server Manager

Server Manager ▸ File and Storage Services ▸ iSCSI

**iSCSI VIRTUAL DISKS**  
All iSCSI virtual disks | 1 total

Filter

Path	Status	Virtual Disk Status	Target Name	Target Status	Initiator ID	Size
AppSrv (1)						
D:\iscsidata\dc1.vhdx	Connected		dc1	Connected	IPAddress:192.168.100.100	500 GB

(2) DC1 挂载使用: (评分要点: 在 DC1 上连接 iSCSI 磁盘, 并挂载到 D 卷。)

Server Manager

File and Storage Services

Volumes

Disks

Servers

Volumes

Disks

Storage Pools

Shares

iSCSI

Work Folders

DISKS

All disks | 2 total

Filter

Number	Virtual Disk	Status	Capacity	Unallocated	Partition	Read Only	Clustered	Subsystem	Bus Type	Name
DC1 (2)										
1		Online	500 GB	0.00 B	GPT			iSCSI		MSFT Virtual HD
0		Online	500.0 GB	0.00 B	GPT				NVMe	VMware Virtual NVMe...

Last refreshed on 6/16/2021 12:34:27 AM

VOLUMES

Related Volumes | 1 total

Filter

Volume	Status	Provisioning	Capacity	Free Space	Deduplication Rate	Deduplication Savings	Percent Used
DC1 (1)							
D:	Fixed		500 GB	499 GB			

Go to Volumes Overview >

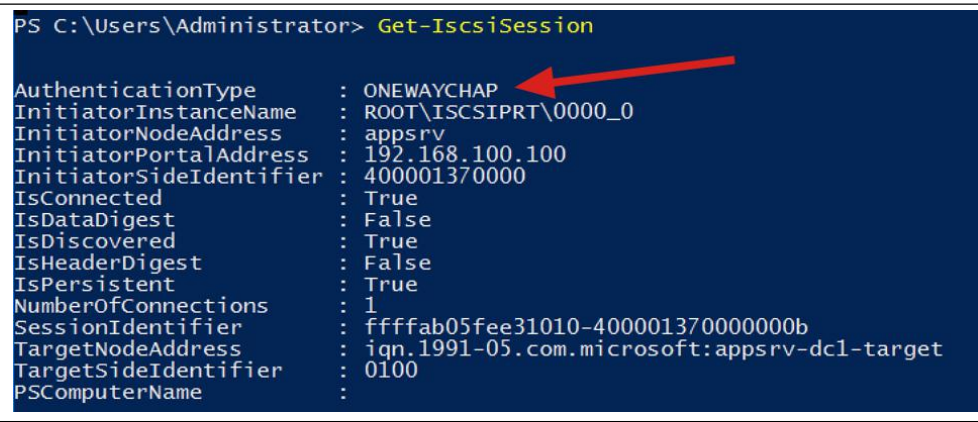
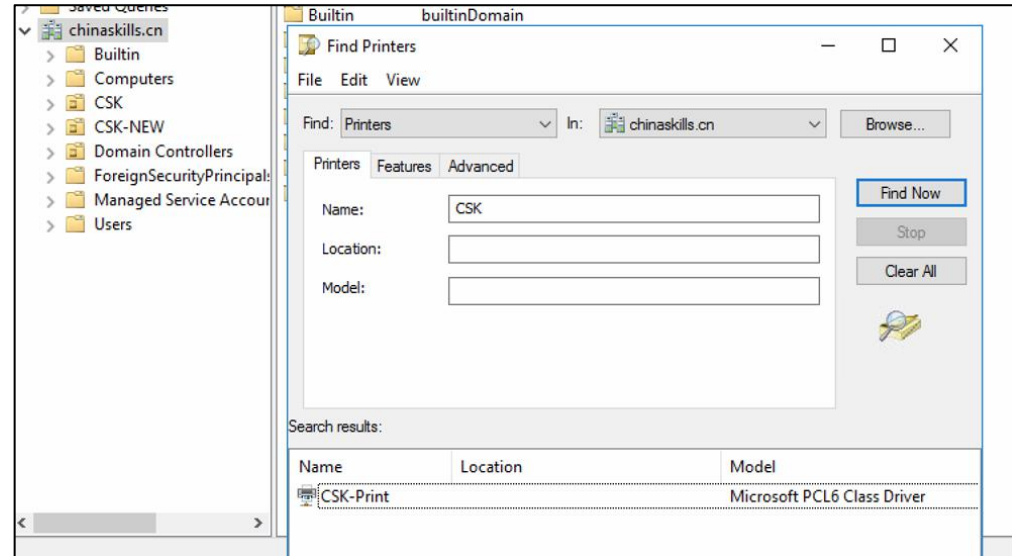
STORAGE POOL

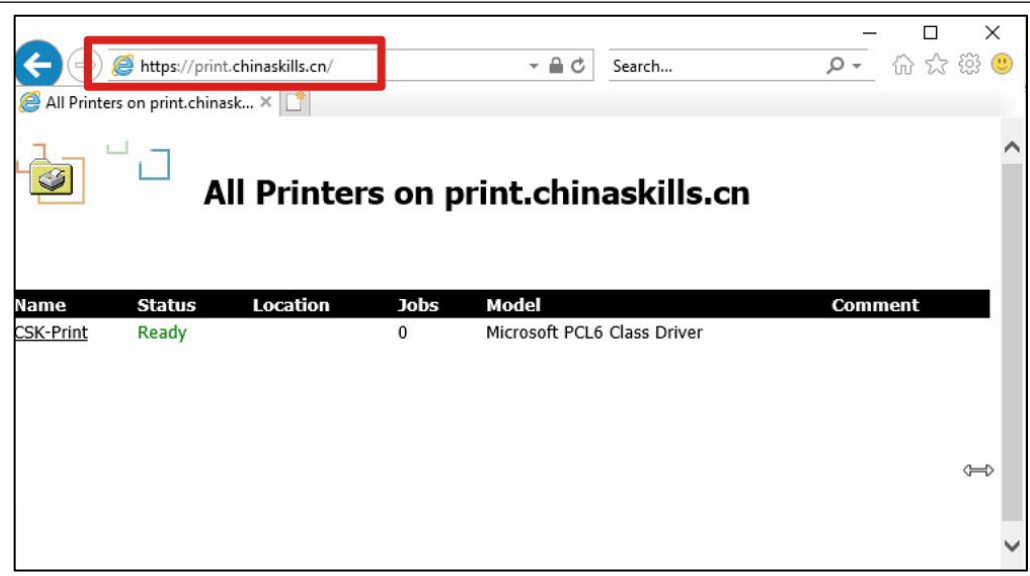
MSFT Virtual HD on DC1

Go to Storage Pools Overview >

(3) 启用 CHAP 认证:

(评分要点: 会话中存在 CHAP 认证即可。)

 <pre> PS C:\Users\Administrator&gt; Get-IscsiSession  AuthenticationType      : ONEWAYCHAP InitiatorInstanceName   : ROOT\ISCSIPRT\0000_0 InitiatorNodeAddress     : appsrv InitiatorPortAddress    : 192.168.100.100 InitiatorSideIdentifier : 400001370000 IsConnected             : True IsDataDigest            : False IsDiscovered            : True IsHeaderDigest          : False IsPersistent            : True NumberOfConnections     : 1 SessionIdentifier       : fffffab05fee31010-4000013700000000b TargetNodeAddress       : iqn.1991-05.com.microsoft:appsrv-dc1-target TargetSideIdentifier    : 0100 PSComputerName          : </pre>		
<p>7、Web Print: (1) 创建域共享打印机; (在 DC1 上打开 dsa.msc 然后搜索 CSK-Print 打印机。) 【3 分】 (2) 通过网页查看 CSK-Print 打印机。(在 insidecli 上使用浏览器打开 <a href="https://print.chinaskills.cn/">https://print.chinaskills.cn/</a>) 【5 分】</p>	8	
<p>(1) 创建域共享打印机: (评分要点: 在活动目录中能够搜索出 CSK-Print 打印机。)</p>  <p>(2) 通过网页查看 CSK-Print 打印机: (评分要点: 网页路径需要 <a href="https://print.chinaskills.cn/">https://print.chinaskills.cn/</a> 没有其他后缀, 能够在页面中查看到 CSK-Print 打印机。)</p>		

		
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## DC1&DC2 工作任务（75 分）

评分要点	分 值	评 分
<p>1、活动目录域服务：（1）AD 域搭建；（在 dc1 和 dc2 上执行 systeminfo 指令。）【2 分】（2）用户和组管理；（在 dc1 上使用 net group 指令检查 IT、SALES、MANAGER 用户和组的创建情况。）【3 分】（3）自定义 UPN；（查看配置）【2 分】（4）限制访问 C 盘；（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（5）禁止运行 run.exe 程序；（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（6）移除关机 and 重启按钮；（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（7）移除桌面垃圾桶；（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（8）禁止使用 cmd 和 bat；（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（9）不显示登录记录；（在 insidecli 上查看效果。）【2 分】（10）自定义 IE 首页。（在 insidecli 上使用 SALES 组的用户登录后查看效果。）【2 分】（11）创建域备份；（通过 cmd 命令行列出所有域备份。）【5 分】（12）修改活动目录与备份路径；（通过 cmd 命令行列出域备份路径信息。）【5 分】（13）修改活动目录 PDC 主机。（查看配置）【5 分】</p>	36	
<p>（1）AD 域搭建：（评分要点：DC1 为 Primary Domain controller, DC2 为 Backup Domain Controller。）</p>		

```
PS C:\Users\Administrator> systeminfo
```

```
Host Name:                DC1
OS Name:                   Microsoft Windows Server 2016 Datacenter
OS Version:                10.0.14393 N/A Build 14393
OS Manufacturer:          Microsoft Corporation
OS Configuration:         Primary Domain Controller
OS Build Type:              Multiprocessor Free
```

```
PS C:\Users\Administrator.CHINASKILLS> systeminfo
```

```
Host Name:                DC2
OS Name:                   Microsoft Windows Server 2016 Datacenter
OS Version:                10.0.14393 N/A Build 14393
OS Manufacturer:          Microsoft Corporation
OS Configuration:         Additional/Backup Domain Controller
OS Build Type:              Multiprocessor Free
Registered Owner:          Windows User
Registered Organization:
```

(2) 用户和组管理: (评分要点: 用户和组的数量要求一致。)

```
PS C:\Users\Administrator> net group IT
Group name      IT
Comment
```

Members

```
-----
it01          it02          it03
it04          it05          it06
it07          it08          it09
it10          it11          it12
it13          it14          it15
it16          it17          it18
it19          it20
```

The command completed successfully.

```
PS C:\Users\Administrator> net group MANAGER
Group name      MANAGER
Comment
```

Members

```
-----
ma01          ma02          ma03
ma04          ma05          ma06
ma07          ma08          ma09
ma10          ma11          ma12
ma13          ma14          ma15
ma16          ma17          ma18
ma19          ma20
```

The command completed successfully.

```
PS C:\Users\Administrator> net group SALES
Group name      SALES
Comment
```

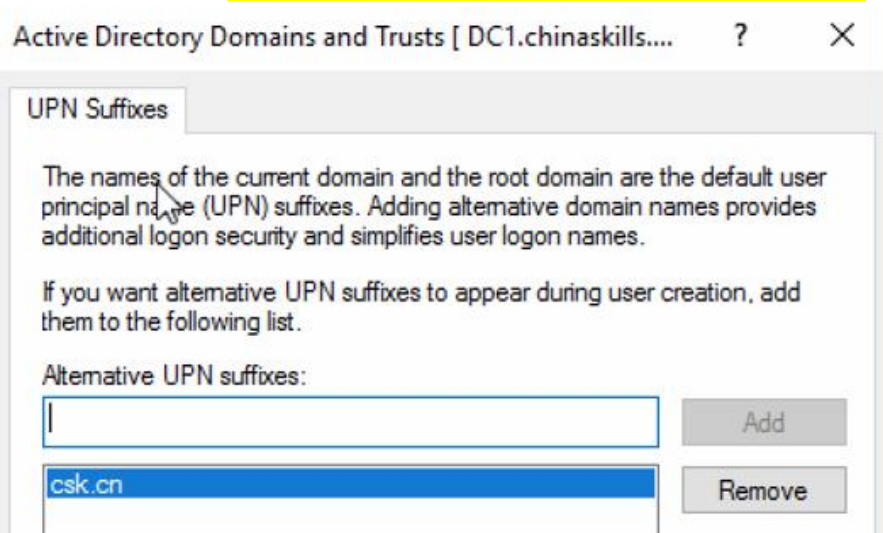
Members

```
-----
sa01          sa02          sa03
sa04          sa05          sa06
sa07          sa08          sa09
sa10          sa11          sa12
sa13          sa14          sa15
sa16          sa17          sa18
sa19          sa20
```

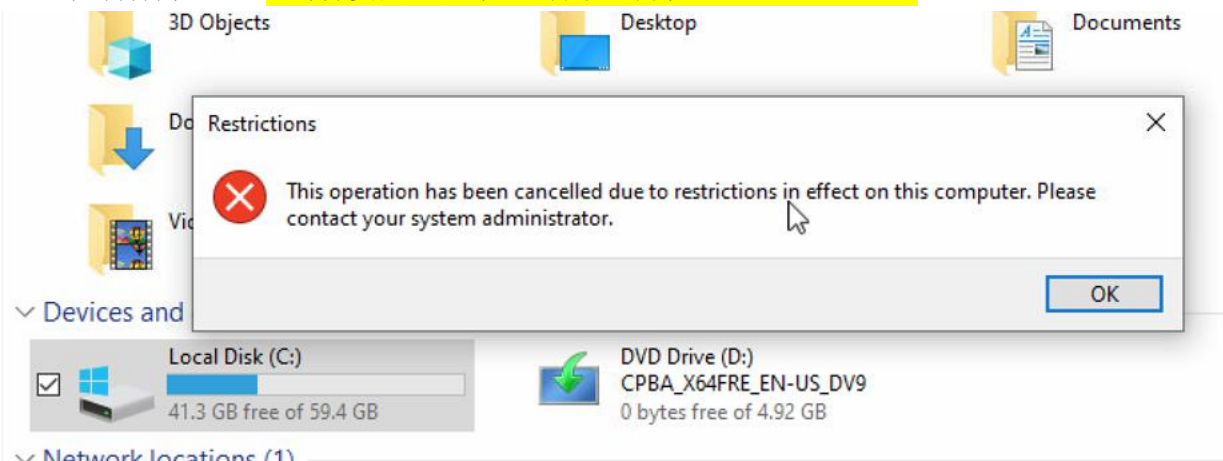
The command completed successfully.



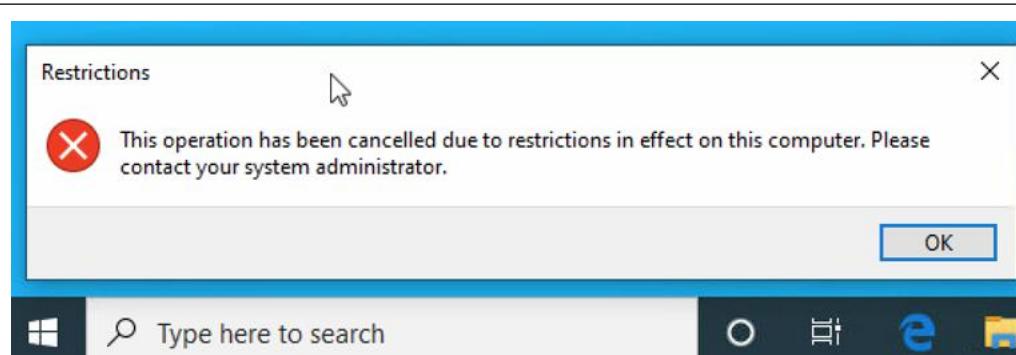
(3) 自定义 UPN: (评分要点: 能够找到 csk.cn 的 UPN Suffixes。)



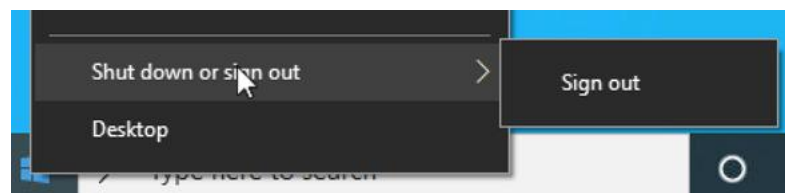
(4) 限制访问 C 盘: (评分要点: 双击 C 盘目录, 提示 Restrictions。)



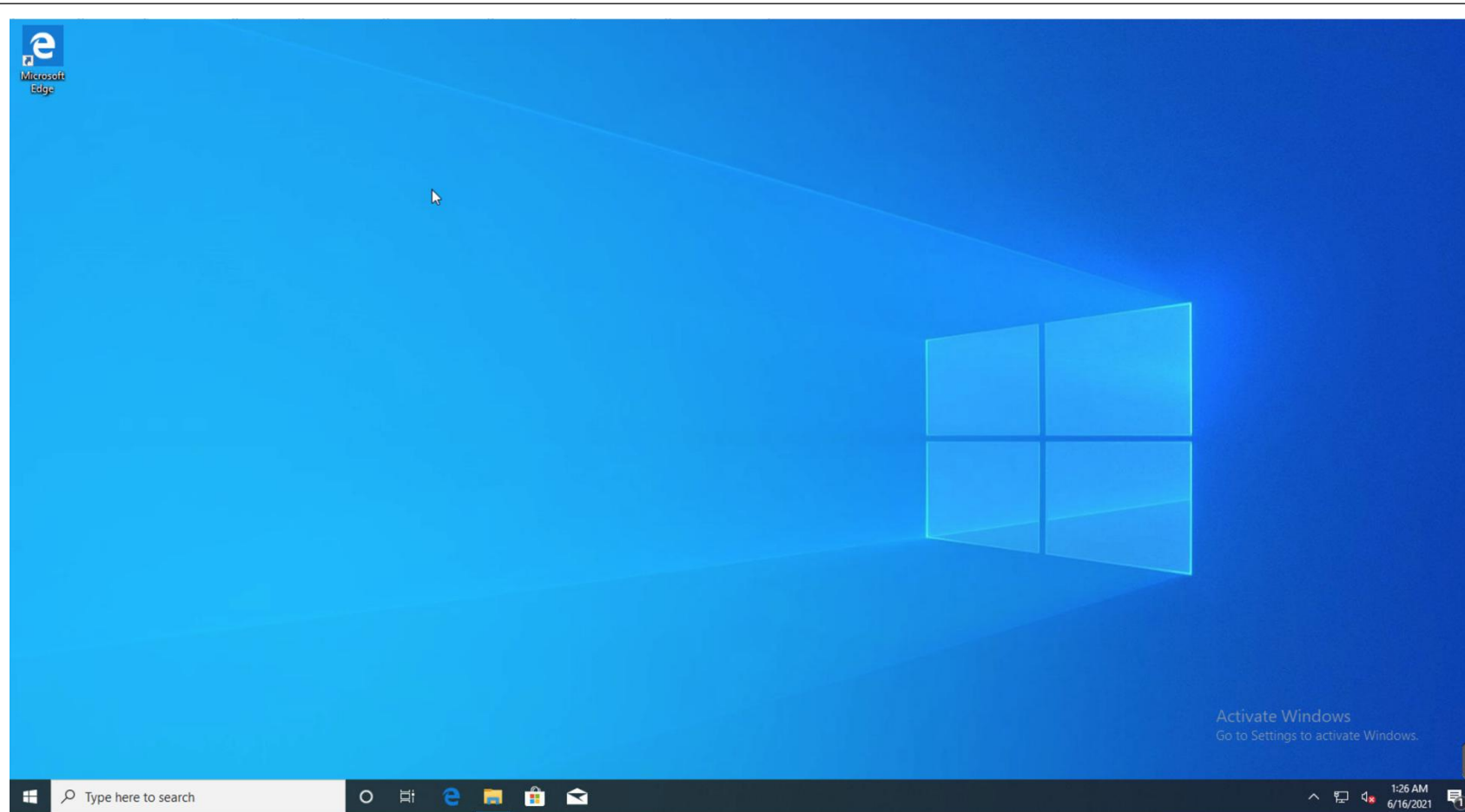
(5) 禁止运行 run.exe 程序: (评分要点: 运行 run.exe 程序是提示, Restrictions。)



(6) 移除关机 and 重启按钮: (评分要点: 点击 shutdown or sign out 按钮, 无法找到 shutdown 和 restart 按钮。)



(7) 移除桌面垃圾桶: (评分要点: 桌面找不到垃圾桶图标。)



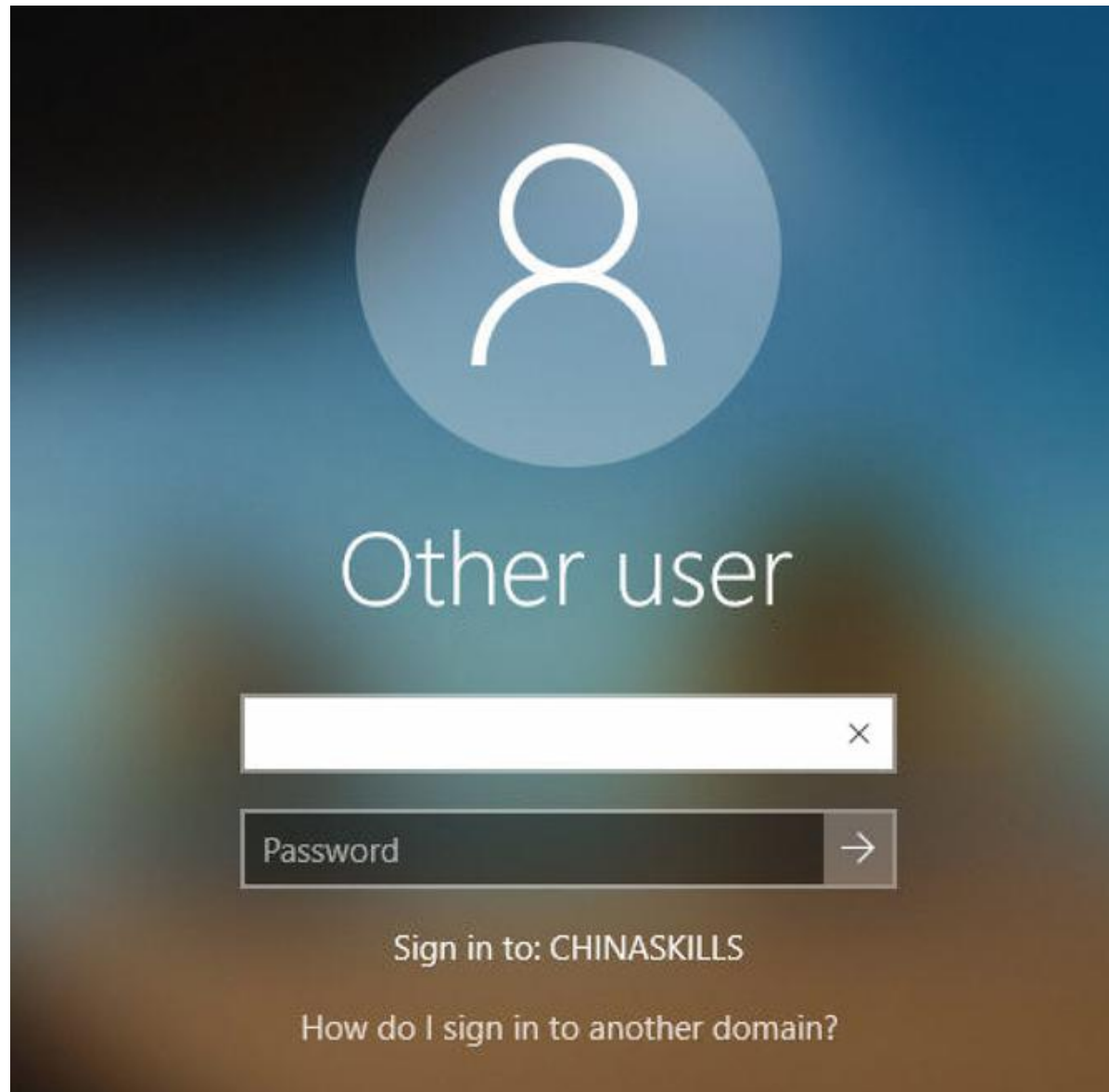
(8) 禁止使用 cmd 和 bat: (评分要点: 运行 cmd 提示禁止使用。)

```
PS H:\> cmd
Microsoft Windows [Version 10.0.18363.418]
(c) 2019 Microsoft Corporation. All rights reserved.

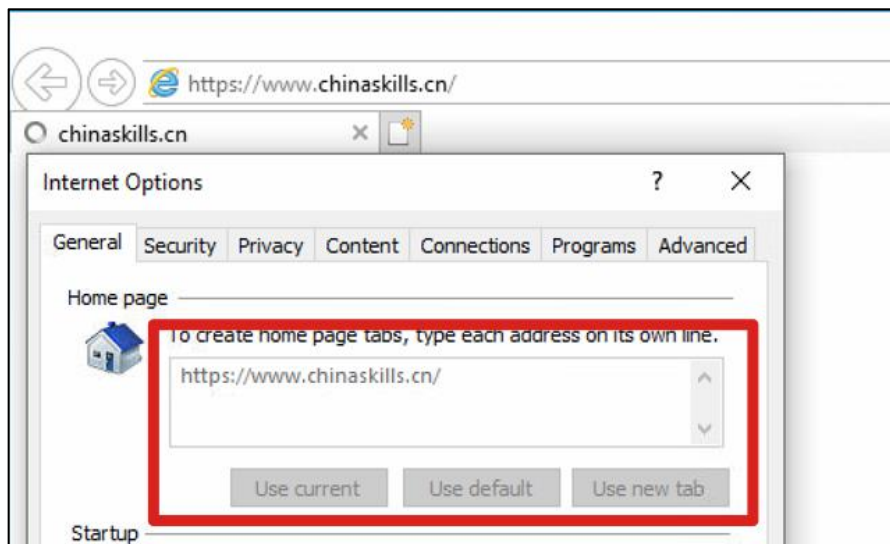
The command prompt has been disabled by your administrator.

Press any key to continue . . .
```

(9) 不显示登录记录: (评分要点: 登录界面直接显示 Other user)



(10) 自定义 IE 首页: (评分要点: 打开 IE 浏览器的主页设置, 可以看到主页不允许修改。并且主页设置为 <https://www.chinaskills.cn/>。)



(11) 创建域备份: (评分要点: 除了 C 盘的备份, 还有其他新建的备份序号。)

```
C:\Users\Administrator>ntdsutil snapshot
ntdsutil: snapshot
snapshot: list all
1: 2021/06/16:07:35 {67508dc3-6973-440d-91c0-42bafacecb2e}
2: C: {f419a186-0f03-4c3f-aa4d-6fa0e6d78617}
```

(12) 修改活动目录与备份路径: (评分要点: 域备份目录设置为 C:\ad-backup)

```
file maintenance: info
Drive Information:

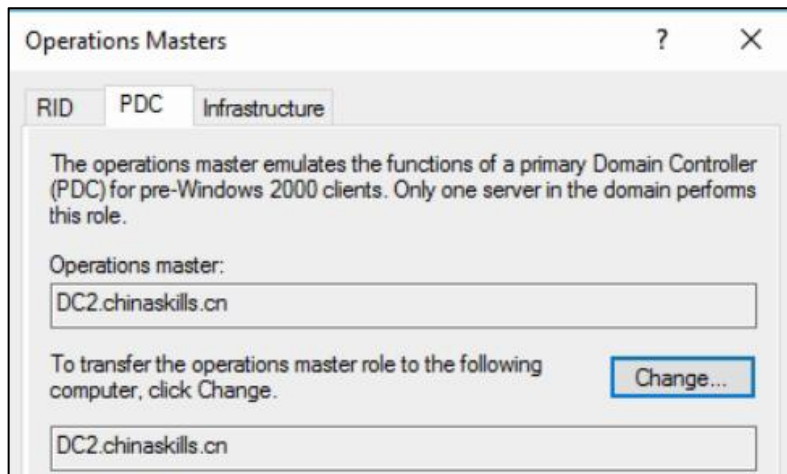
C:\ NTFS (Fixed Drive ) free(47.6 Gb) total(59.4 Gb)
D:\ NTFS (Fixed Drive ) free(473.9 Gb) total(499.8 Gb)

DS Path Information:

Database : C:\Windows\NTDS\ntds.dit - 20.0 Mb
Backup dir : c:\ad-backup
Working dir: C:\Windows\NTDS
Log dir : C:\Windows\NTDS - 50.0 Mb total
         edbtmp.log - 10.0 Mb
         edbres00002.jrs - 10.0 Mb
         edbres00001.jrs - 10.0 Mb
         edb00001.log - 10.0 Mb
         edb.log - 10.0 Mb

file maintenance:
```

(13) 修改活动目录 PDC 主机: (评分要点: Operations master 为 DC2.chinaskills.cn。)



2、NPS: (1) 仅允许 SSTP/VPN 拨号访问; (查看配置) 【3 分】 (2) 仅允许 MANAGER 进行身份验证; (查看配置) 【3 分】 (3) 日志管理。(查看配置) 【5 分】

(1) 仅允许 SSTP/VPN 拨号访问: (评分要点: Tunnel-Type 设置为 SSTP。)

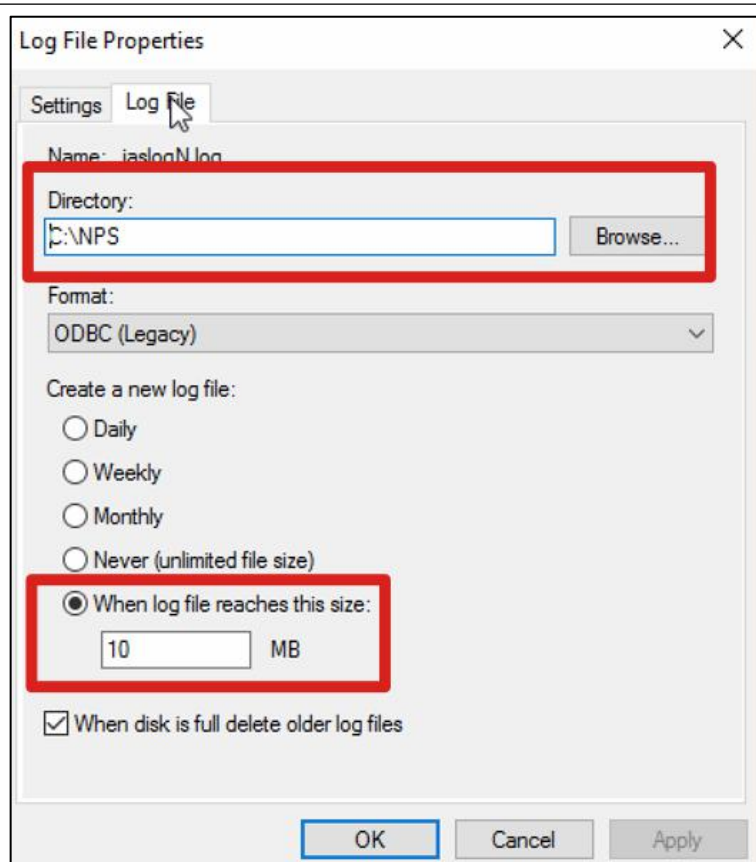


Settings - Then the following settings are applied:	
Setting	Value
Access Permission	Grant Access
Authentication Method	MS-CHAP v1 OR MS-CHAP v1 (User can change password after it has expired) O...
Tunnel-Type	Secure Socket Tunneling Protocol (SSTP)

(2) 仅允许 MANAGER 进行身份验证: (评分要点: 用户和组中仅设置 MANAGER 组)

SSTP/VPN	
Conditions - If the following conditions are met:	
Condition	Value
User Groups	CHINASKILLS\MANAGER

(3) 日志管理: (评分要点: 日志目录设置为 c:\NPS, 并且设置每当日志文教大于 10MB 时自动创建新的日志文件。)



3、DNS：（1）非对称校验；（在dc1上打开dns管理器查看加密后的dns记录）【5分】（2）未知域名转发。（在insidecli上进入nslookup模式后输入域名进行解析。）【3分】

8

（1）非对称校验：（评分要点：chinaskills.cn 存在 RRSIG 和 DNSKEY 的记录。）

DNS Manager

File Action View Help


DNS

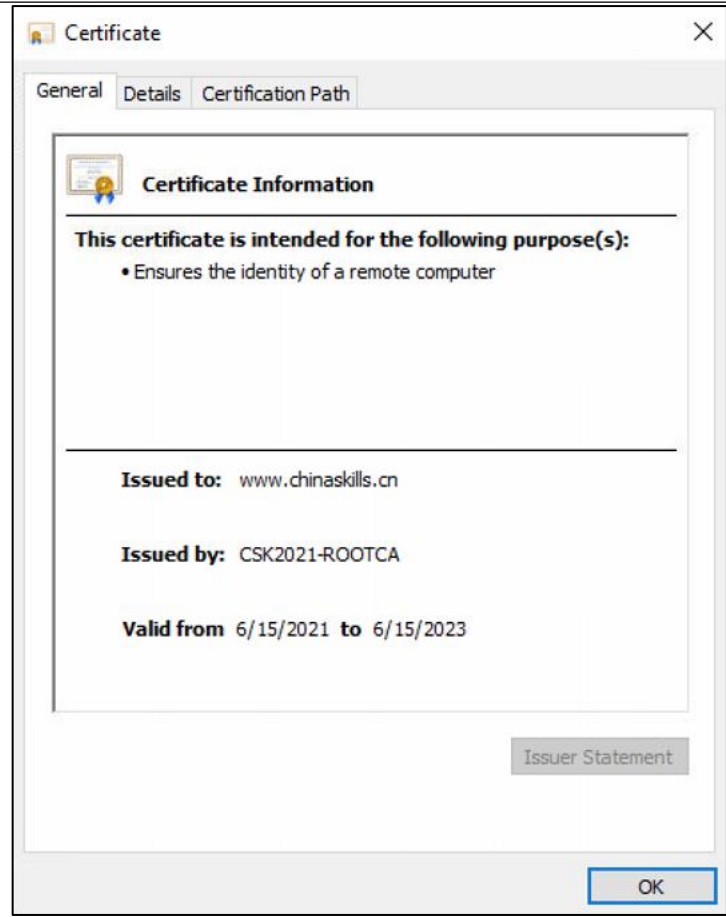
- DC1
  - Forward Lookup Zones
    - chinaskills.cn
  - Reverse Lookup Zones
  - Trust Points
  - Conditional Forwarders

Name	Type	Data	Timestamp
_msdcs			
_sites			
_tcp			
_udp			
DomainDnsZones			
ForestDnsZones			
(same as parent folder)	Start of Authority (SOA)	[58], dc1.chinaskills.cn, h...	static
(same as parent folder)	Name Server (NS)	dc2.chinaskills.cn.	static
(same as parent folder)	Name Server (NS)	dc1.chinaskills.cn.	static
(same as parent folder)	Host (A)	192.168.100.100	6/14/2021 8:00:00 PM
(same as parent folder)	Host (A)	192.168.100.200	6/14/2021 9:00:00 PM
(same as parent folder)	RR Signature (RRSIG)	[NSEC3PARAM][Inception...	static
(same as parent folder)	RR Signature (RRSIG)	[DNSKEY][Inception(UTC):...	static
(same as parent folder)	RR Signature (RRSIG)	[DNSKEY][Inception(UTC):...	static
(same as parent folder)	RR Signature (RRSIG)	[A][Inception(UTC): 6/15/...	static
(same as parent folder)	RR Signature (RRSIG)	[NS][Inception(UTC): 6/15...	static
(same as parent folder)	RR Signature (RRSIG)	[SOA][Inception(UTC): 6/1...	static
(same as parent folder)	DNS KEY (DNSKEY)	[257][DNSSEC][RSA/SHA-...	static
(same as parent folder)	DNS KEY (DNSKEY)	[257][DNSSEC][RSA/SHA-...	static
(same as parent folder)	DNS KEY (DNSKEY)	[256][DNSSEC][RSA/SHA-...	static
(same as parent folder)	DNS KEY (DNSKEY)	[256][DNSSEC][RSA/SHA-...	static

(2) 未知域名转发: (评分要点: 解析 test100.com 成功, 并且提示 Non-authoritative answer。)

<pre> PS C:\Users\it01&gt; nslookup Default Server:  dc1.chinaskills.cn Address:  192.168.100.100  &gt; test100.com Server:  dc1.chinaskills.cn Address:  192.168.100.100  Non-authoritative answer: Name:    test100.com Address:  100.100.100.100 </pre>		
4、证书颁发机构：（1）证书名称：（查看效果）【2分】（2）证书有效期。（查看效果）【4】	6	
<p>（1）证书名称：（评分要点：根证书名称为 CSK2021-ROOTCA）</p>  <p>（2）证书有效期：（评分要点：根证书有效期为 10 年，WWW 站点的 WEB 证书有效期为 3 年。）</p>		

<div><div>Certificate</div><div><div>General</div><div>Details</div><div>Certification Path</div></div><div><div><div><div></div><div>Certificate Information</div></div><div><div>This certificate is intended for the following purpose(s):</div><ul style="list-style-type: none"><li>• All issuance policies</li><li>• All application policies</li></ul></div><div><div>Issued to: CSK2021-ROOTCA</div><div>Issued by: CSK2021-ROOTCA</div><div>Valid from 6/14/2021 to 6/14/2031</div></div><div><div>Issuer Statement</div></div></div><div><div>OK</div></div></div></div>		
---	--	--

		
<p>5、文件共享：（1）隐藏共享；（在 DC1 上执行指令：net share）【2 分】（2）自动挂载用户主目录共享；（在 insidecli 上功能性测试。）【2 分】（3）用户主目录容量；（在 insidecli 上功能性测试。）【2 分】（4）禁止特定文件在用户主目录中存储；（在 insidecli 上功能性测试。）【5 分】（5）用户配置文件。（在 insidecli 上使用管理员运行 sysdm.cpl，然后打开“user profiles”。）【3 分】</p>	14	
<p>（1）隐藏共享：（评分要点：存在 users\$和 profiles\$的隐藏共享，并且目录要求一致。）</p>		



```
C:\Users\Administrator>net share

Share name      Resource                Remark
-----
C$              C:\                    Default share
D$              D:\                    Default share
IPC$            Remote IPC
users$          D:\share\users
profiles$       D:\share\profiles
ADMIN$          C:\Windows             Remote Admin
NETLOGON        C:\Windows\SYSTEM32\sysvol\chinaskills.cn\SCRIPTS
                Logon server share
SYSVOL          C:\Windows\SYSTEM32\sysvol
                Logon server share
The command completed successfully.
```

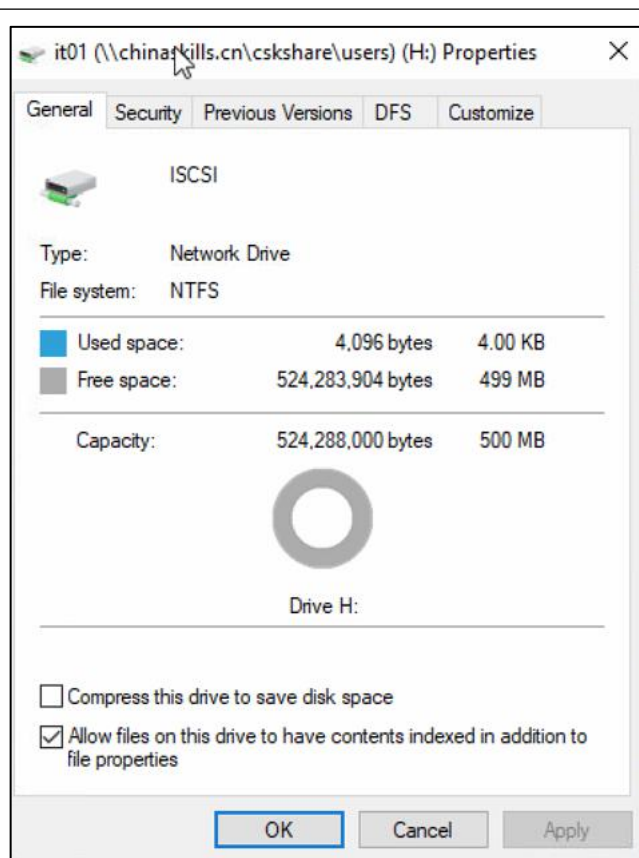
(2) 自动挂载用户主目录共享: (评分要求: 存在 H 卷, 路径要求一致, 用户名不作为评判标准。)

```
C:\Windows\system32\cmd.exe

C:\Users\it01>net use
New connections will be remembered.

Status      Local      Remote                Network
-----
H:          \\chinaskills.cn\cskshare\users\it01
                Microsoft Windows Network
The command completed successfully.
```

(3) 用户主目录容量: (评分要点: 磁盘代销为 500MB。)



(4) 禁止特定文件在用户主目录中存储: (评分要点: 需要所有后缀文件都要测试一遍。)

```
C:\Windows\system32\cmd.exe
H:\>echo test > 1.exe
Access is denied.

H:\>echo test > 1.bat
Access is denied.

H:\>echo test > 1.cmd
Access is denied.

H:\>echo test > 1.txt

H:\>ls
'ls' is not recognized as an internal or external command,
operable program or batch file.

H:\>dir
Volume in drive H is ISCSI
Volume Serial Number is 46F9-0EB2

Directory of H:\

06/16/2021  01:56 AM    <DIR>          .
06/16/2021  01:56 AM    <DIR>          ..
06/16/2021  01:56 AM                7 1.txt
               1 File(s)                7 bytes
               2 Dir(s)      524,283,904 bytes free
```

(5) 用户配置文件: (评分要点: 普通用户的用 profiles 文件的类型为 Roaming)

User Profiles

User profiles store settings for your desktop and other information related to your user account. You can create a different profile on each computer you use, or you can select a roaming profile that is the same on every computer you use.

Profiles stored on this computer:

Name	Size	Type	Status	Mod...
CHINASKILLS\Administrator	5.23 MB	Local	Local	6/16...
CHINASKILLS\it01	293 MB	Roaming	Roaming	6/16...
CHINASKILLS\sa01	2.28 MB	Roaming	Roaming	6/16...
Default Profile	1.47 MB	Local	Local	6/14...
INSIDECLI\demo	233 MB	Local	Local	6/15...

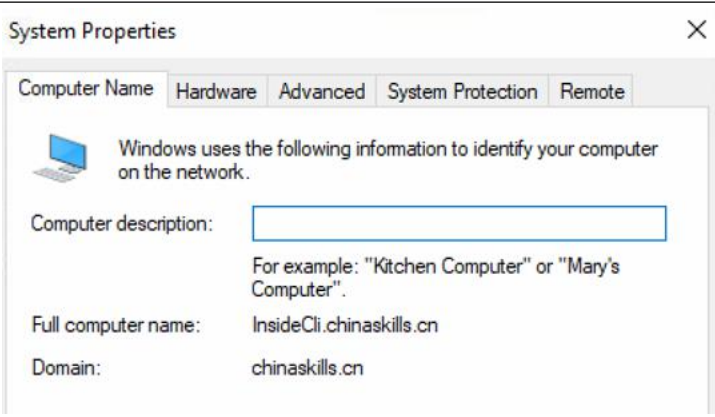
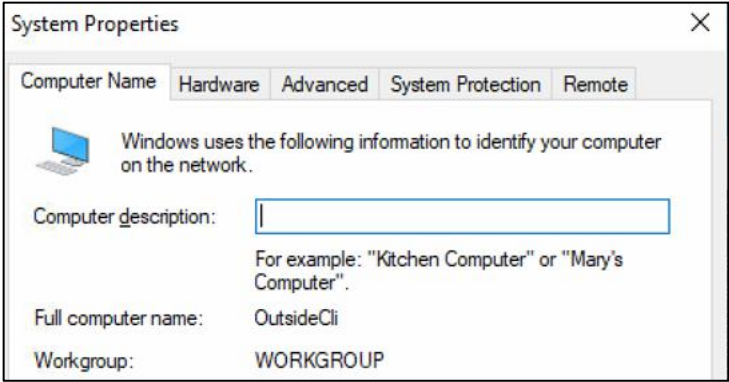
Change Type... Delete Copy To...

To create new user accounts, open [User Accounts](#) in Control Panel.

OK Cancel

## INSIDECLI 和 OUTSIDECLI 工作任务（29 分）

评分要点	分 值	评 分
1、INSIDECLI：（1）加入 chinaskills.cn 域；（在 insidecli 上执行指令 sysdm.cpl）【2 分】	2	
(1)加入 chinaskills.cn 域：（评分要点：加入 chinaskills.cn 域。）		

		
<p>2、OUTSIDECLI: (1) 不加入域, 保留工作组; (在 insidecli 上执行指令 sysdm.cpl) 【2 分】 (2) 离线加域; (在 dc1 上配置, 并保留成功凭据。) 【10 分】 (3) VPN 测试 (在 outsidecli 上使用 ma01 用户成功连接 VPN 后打开网络管理中心查看网卡状态; 查看连接器不记录 vpn 用户名和密码信息的配置。)。 【15 分】</p>	27	
<p>(1) 不加入域, 保留工作组: (评分要点: 保留在 WORKGROUP 工作组。)</p>  <p>(2) 离线加域: (评分要点: 主机名和文件路径不能错。)</p>		

```
C:\>djoin /provision /domain chinaskills.cn /machine OutsideCli /savefile OutsideCli.join  
Provisioning the computer...  
Successfully provisioned [OutsideCli] in the domain [chinaskills.cn].  
Provisioning data was saved successfully to [OutsideCli.join].  
  
Computer provisioning completed successfully.  
The operation completed successfully.
```

(3) VPN 测试: (评分要点: 存在 Connect-CSK 拨号器; 客户端成功连接 VPN, 并且显示 VPN 协议为 SSTP, 不记录用户名和密码, 需要取消勾选 “Remember my credentials”。)

