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**Tabela de endereços:**

Máscara de Sub-rede: 255.255.255.240

Endereço de Rede IPv4: 192.168.75.16

Faixa de Endereços IP: 192.168.75.17 a 192.168.75.30

Endereço de Broadcast: 192.168.75.31

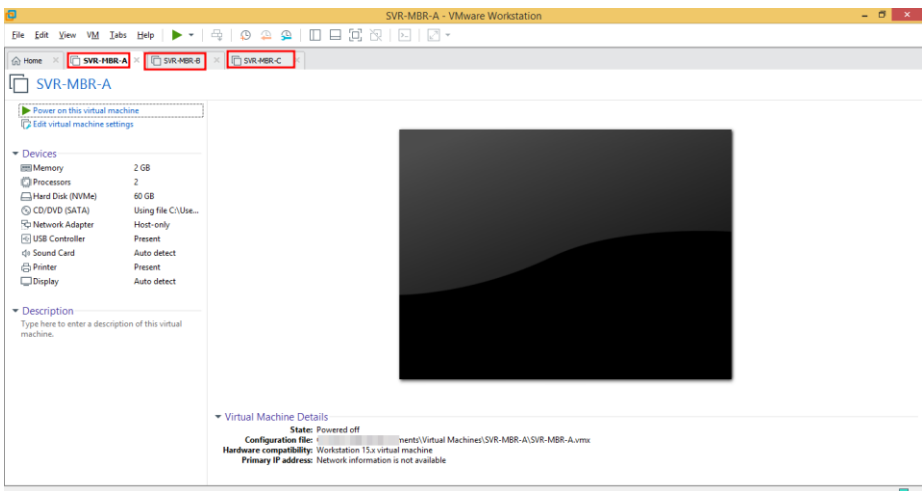
**MAC e IPV6**

Computador	Endereço MAC	Endereço IPv6
SVR-MBR-A	12-AA-BC-32-23-12	fd00::10aa:bcff:fe32:2312
SVR-MBR-B	12-AA-BC-32-23-11	fd00::10aa:bcff:fe32:2311
SVR-MBR-C	00-15-5D-01-01-C1	fd00::215:5dff:fe01:1c1

**Endereços das máquinas:**

	SVR-MBR-A	SVR-MBR-B	SVR-MBR-C
Endereço de IP	192.168.75.17	192.168.75.18	192.168.75.19
Máscara de sub-rede	255.255.255.240	255.255.255.240	255.255.255.240
Servidor DNS preferencial	192.168.75.17	192.168.75.17	192.168.75.17

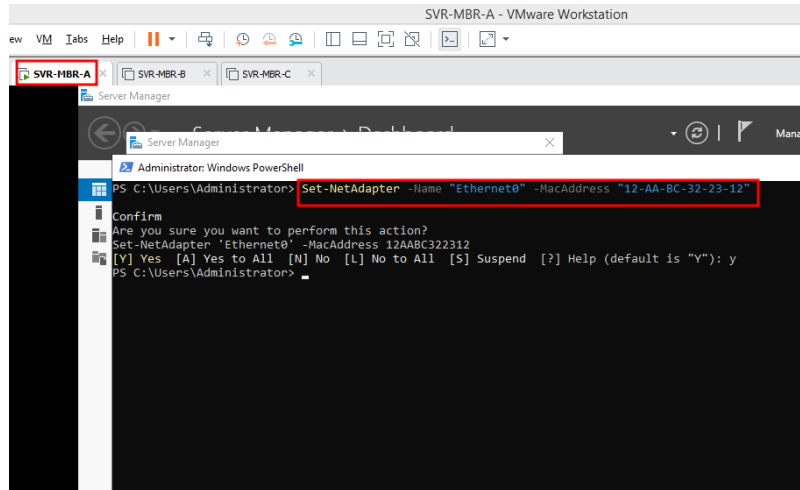
**Criando as 3 máquinas virtuais para o laboratório:**



## Configurando o MAC:

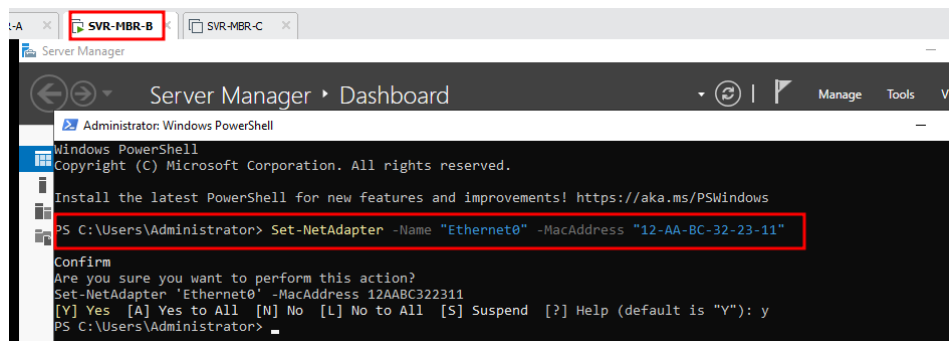
### SVR-MBR-A

Set-NetAdapter -Name "Ethernet0" -MacAddress "12-AA-BC-32-23-12"



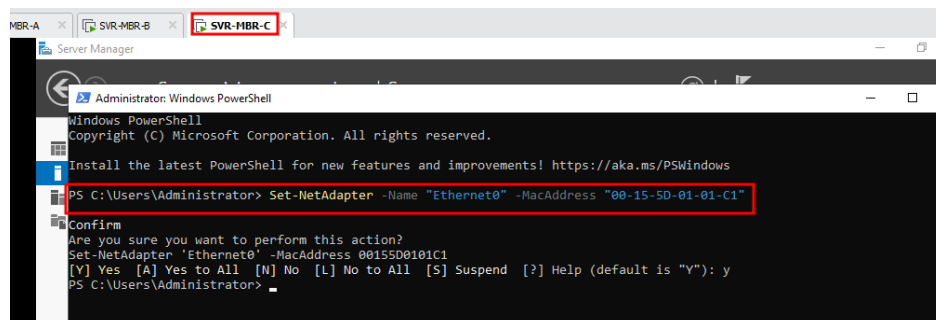
### SVR-MBR-B

Set-NetAdapter -Name "Ethernet0" -MacAddress "12-AA-BC-32-23-11"



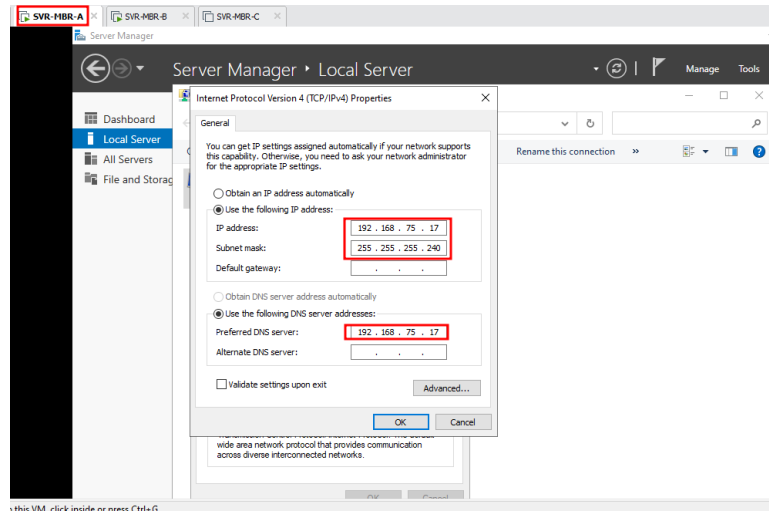
### SVR-MBR-C

Set-NetAdapter -Name "Ethernet" -MacAddress "00-15-5D-01-01-C1"

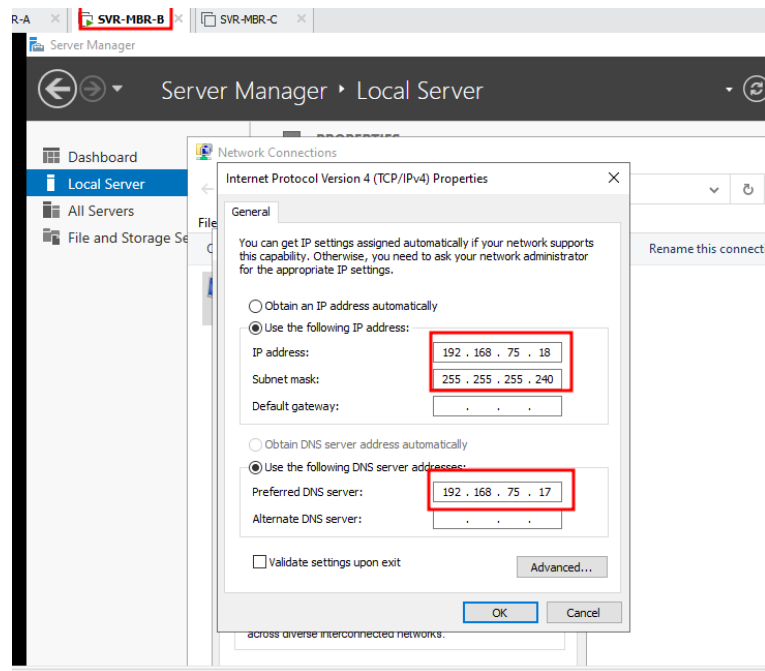


## Definindo o IP:

### SVR-MBR-A



### SVR-MBR-B



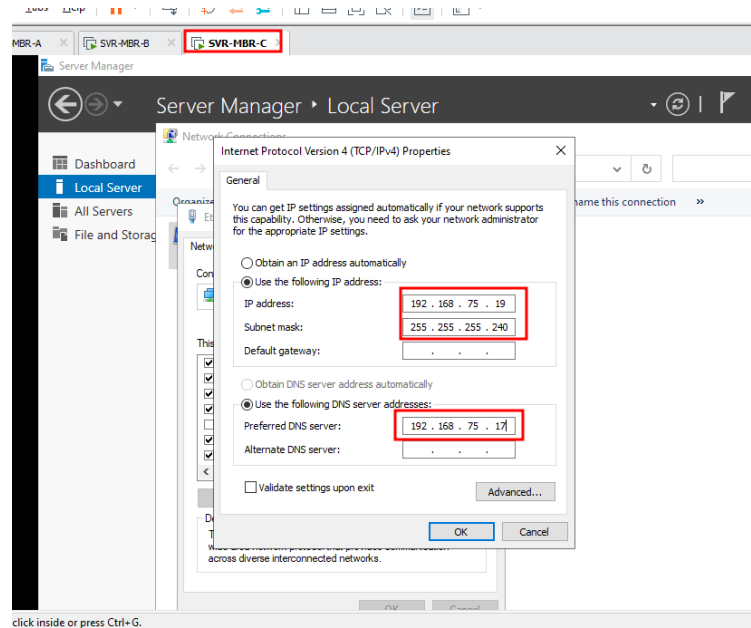
## SVR-MBR-C

Remove-NetIPAddress -InterfaceAlias "Ethernet0" -Confirm:\$false

New-NetIPAddress -InterfaceAlias "Ethernet0" -IPAddress "192.168.75.19" -PrefixLength 28 -  
DefaultGateway "0.0.0.0"

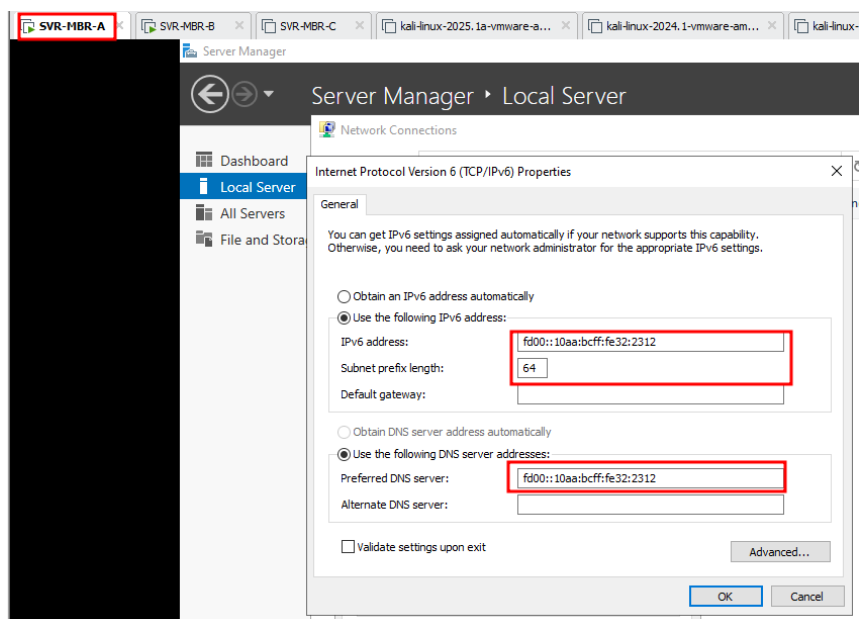
New-NetIPAddress -InterfaceAlias "Ethernet0" -IPAddress "fd00::215:5dff:fe01:1c1" -  
PrefixLength 64

Set-DnsClientServerAddress -InterfaceAlias "Ethernet0" -ServerAddresses "192.168.75.17"

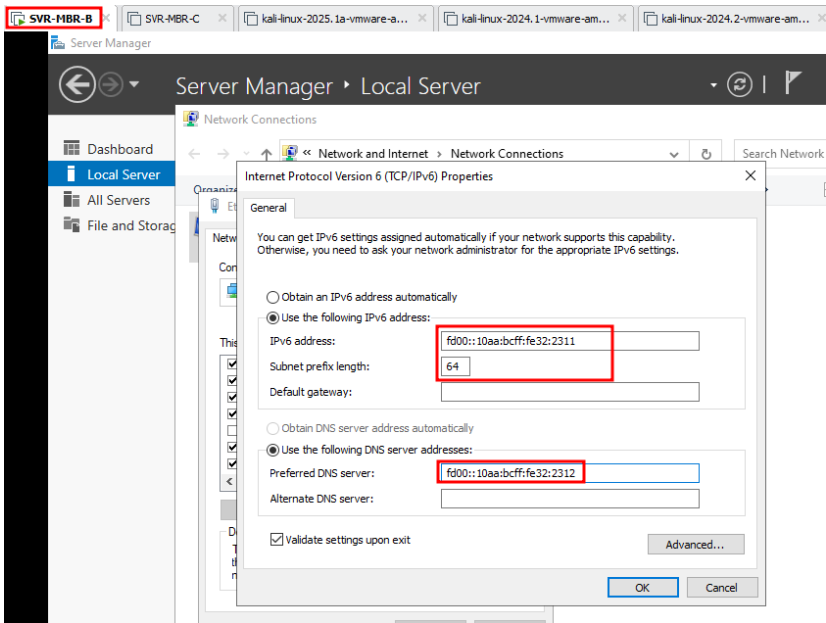


## IPV6:

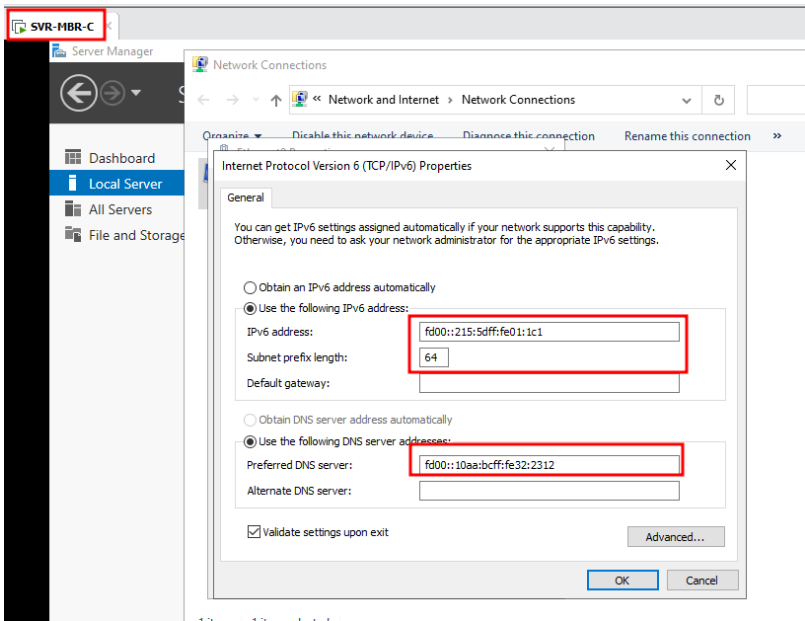
### SVR-MBR-A



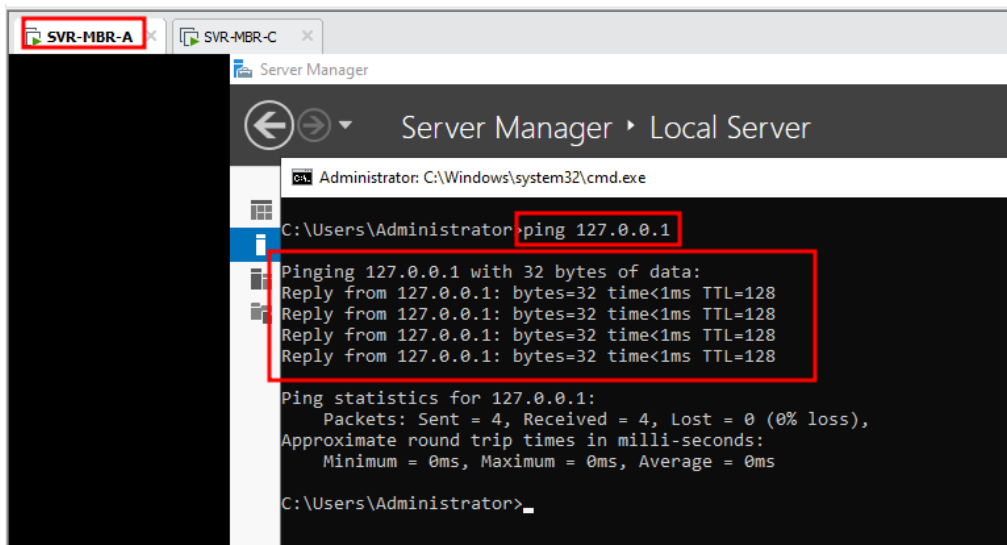
SVR-MBR-B



SVR-MBR-C



## Testando o loopback:



The screenshot shows a Windows Server Manager window with a console window open. The console window title is "Administrator: C:\Windows\system32\cmd.exe". The command prompt shows the command `ping 127.0.0.1` being executed. The output shows four successful replies from 127.0.0.1 with a time of less than 1ms and a TTL of 128. The ping statistics show 4 packets sent, 4 received, and 0% loss.

```
C:\Users\Administrator>ping 127.0.0.1

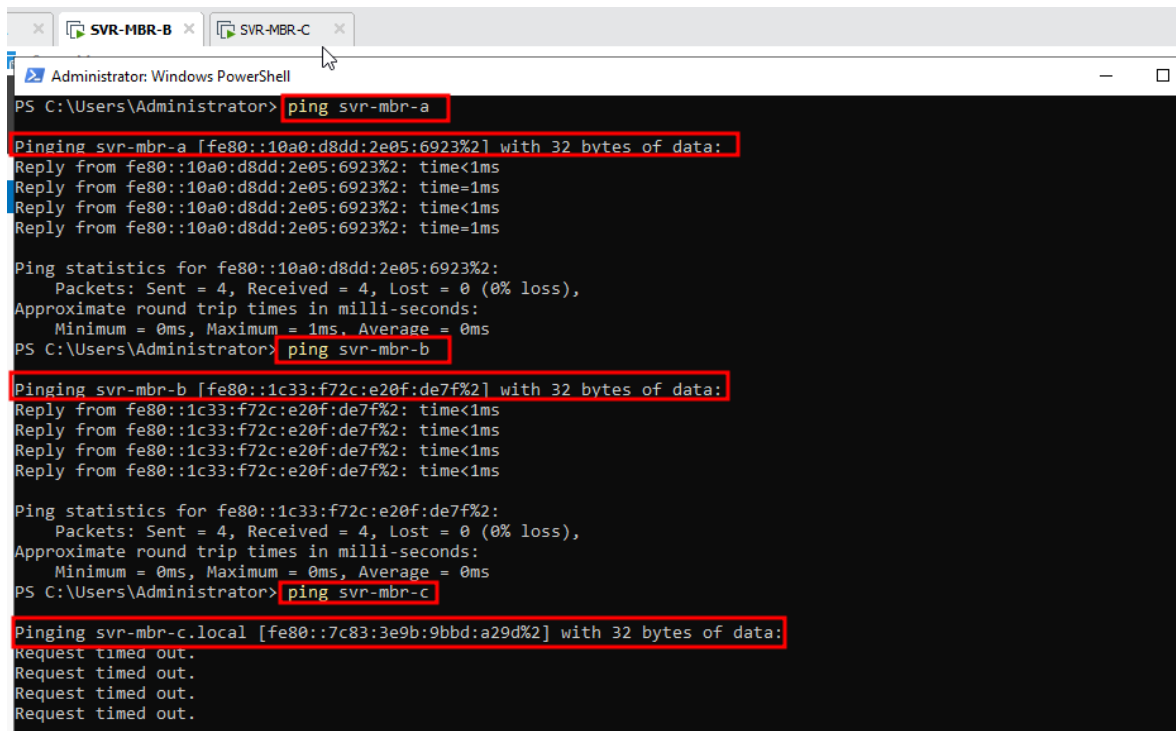
Pinging 127.0.0.1 with 32 bytes of data:
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 127.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

## Testando o ping entre as máquinas já com resolução de nome:

- B para A (Sucesso)
- B para B (Sucesso)
- B para C (Falhou)



The screenshot shows a Windows PowerShell console window with three tabs: SVR-MBR-B, SVR-MBR-C, and SVR-MBR-A. The console window title is "Administrator: Windows PowerShell". The command prompt shows the command `ping svr-mbr-a` being executed. The output shows four successful replies from fe80::10a0:d8dd:2e05:6923%2 with a time of less than 1ms. The ping statistics show 4 packets sent, 4 received, and 0% loss. The command `ping svr-mbr-b` is also executed, showing four successful replies from fe80::1c33:f72c:e20f:de7f%2 with a time of less than 1ms. The ping statistics show 4 packets sent, 4 received, and 0% loss. The command `ping svr-mbr-c` is executed, showing four failed replies (Request timed out).

```
PS C:\Users\Administrator>ping svr-mbr-a

Pinging svr-mbr-a [fe80::10a0:d8dd:2e05:6923%2] with 32 bytes of data:
Reply from fe80::10a0:d8dd:2e05:6923%2: time<1ms
Reply from fe80::10a0:d8dd:2e05:6923%2: time<1ms
Reply from fe80::10a0:d8dd:2e05:6923%2: time<1ms
Reply from fe80::10a0:d8dd:2e05:6923%2: time<1ms

Ping statistics for fe80::10a0:d8dd:2e05:6923%2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\Administrator>ping svr-mbr-b

Pinging svr-mbr-b [fe80::1c33:f72c:e20f:de7f%2] with 32 bytes of data:
Reply from fe80::1c33:f72c:e20f:de7f%2: time<1ms
Reply from fe80::1c33:f72c:e20f:de7f%2: time<1ms
Reply from fe80::1c33:f72c:e20f:de7f%2: time<1ms
Reply from fe80::1c33:f72c:e20f:de7f%2: time<1ms

Ping statistics for fe80::1c33:f72c:e20f:de7f%2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
PS C:\Users\Administrator>ping svr-mbr-c

Pinging svr-mbr-c.local [fe80::7c83:3e9b:9bbd:a29d%2] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
```

### **Pergunta 1: Como o computador obteve seu IP atual?**

Se for DHCP, foi atribuído automaticamente. Verifique com `ipconfig /all`.

### **Pergunta 2: Qual parâmetro omitir para não resolver nomes?**

O Servidor DNS. Sem ele, não se resolve nomes de domínio para IP.

### **Pergunta 3: O que o resultado do ping 127.0.0.1 prova?**

Este teste prova que a pilha do protocolo TCP/IP está instalada e funcionando corretamente na máquina local. É um teste de loopback que não depende da conexão física de rede.

### **Pergunta 4: Qual seria o resultado se você desligasse o cabo de rede antes de executar o ping 127.0.0.1?**

O teste de loopback é interno ao sistema operacional e não envia pacotes para a rede externa.

### **Pergunta 5: O que o resultado do ping svr-mbr-a (feito a partir do SVR-MBR-B) prova?**

Prova que existe conectividade de ponta a ponta entre os dois servidores, e que a resolução de nomes está funcionando.

### **Pergunta 6: Como o computador conseguiu resolver o nome do svr-mbr-a em seu endereço IP?**

Ele conseguiu resolver o nome porque configuramos o SVR-MBR-B para usar o SVR-MBR-A (192.168.75.17) como seu servidor DNS.

### **Pergunta 7: Por que alguns pings falharam, quando os testes anteriores funcionaram?**

Resposta: A causa mais provável é o Firewall do Windows no computador de destino (SVR-MBR-C). Por padrão, o firewall do Windows Server bloqueia solicitações de ping (ICMP Echo Request) vindas de outras máquinas.