

Equipamento	Nome	IP	Mascara	Serviços
Servidor*	Srvdc	172.16.0.1	255.255.0.0	Domain Controler, DNS, DHCP
Servidor	SrvWeb01	172.16.0.10	255.255.0.0	WEBSERVER, FTP
Cliente*	PC-cliente1	IP Automatico		
Servidor	SrvRouter01	172.16.0.254	255.255.0.0	Router
		10.0.0.254	255.0.0.0	
		30.0.0.254	255.0.0.0	
Cliente	PC-cliente2	IP Automatico	255.0.0.0	
Servidor	SrvServicos	30.0.0.1	255.0.0.0	DHCP,DNS
Cliente	PC-cliente2	IP Automatico	255.0.0.0	

*Servidor – Windows server 2022 Datacenter desktop Experience

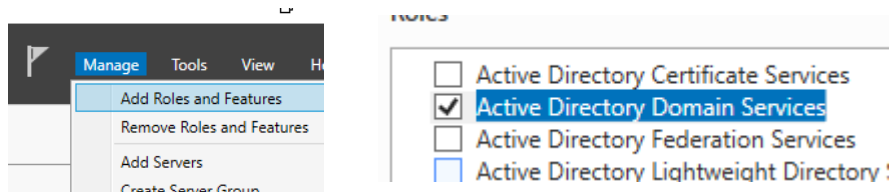
*Cliente – Windows 10 Education

No Srvdc:

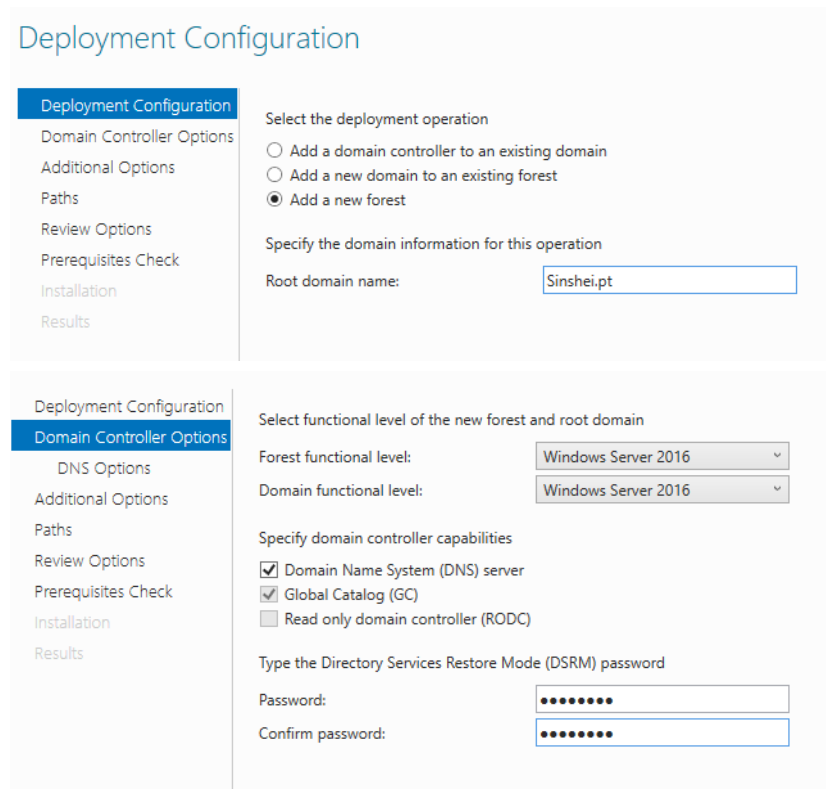
1. Crie um domínio no Active directory de nome Sinshei.pt

Retirar IPv6, colocar IP, máscara e DNS.

instalar o ADDS e passar a controlador de domínio.

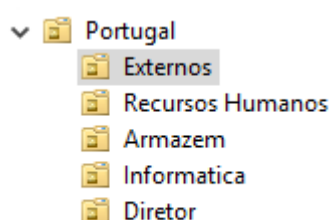
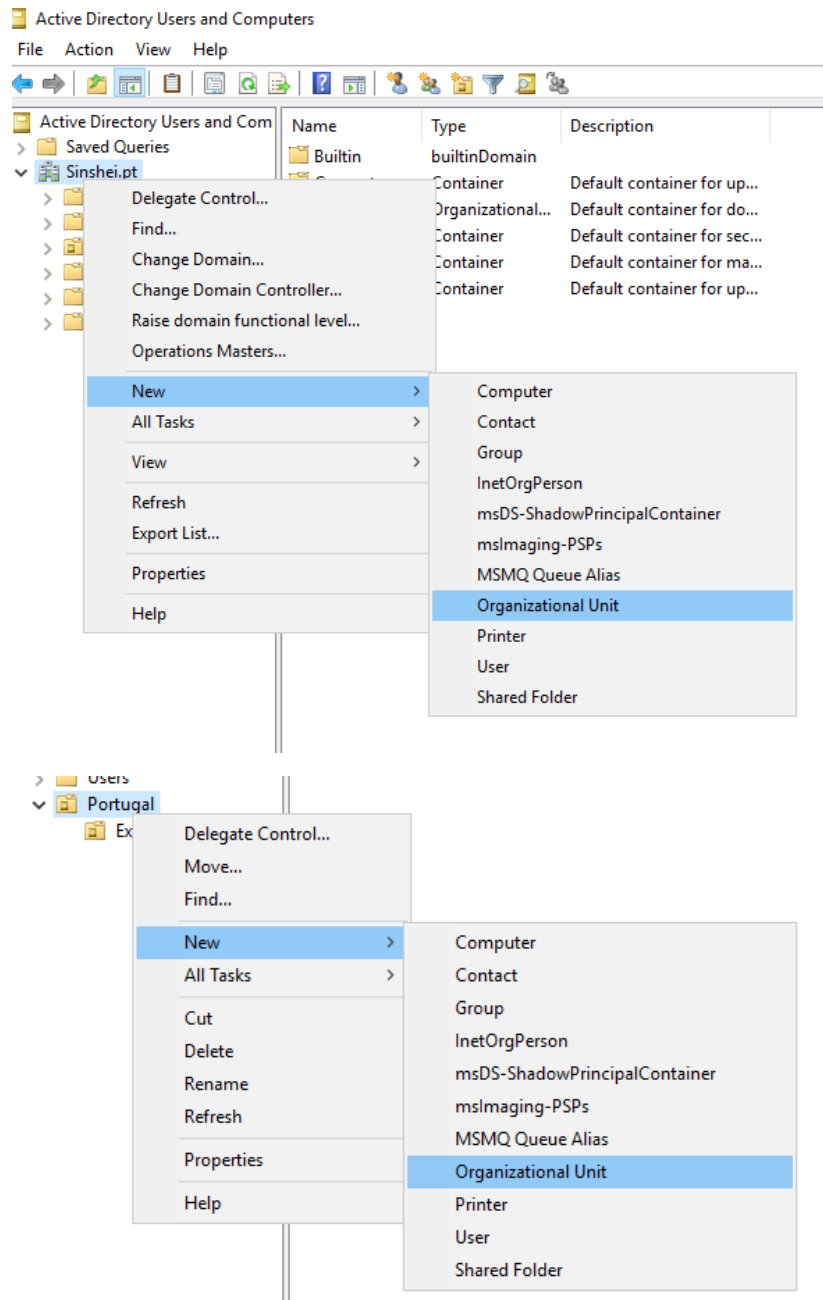
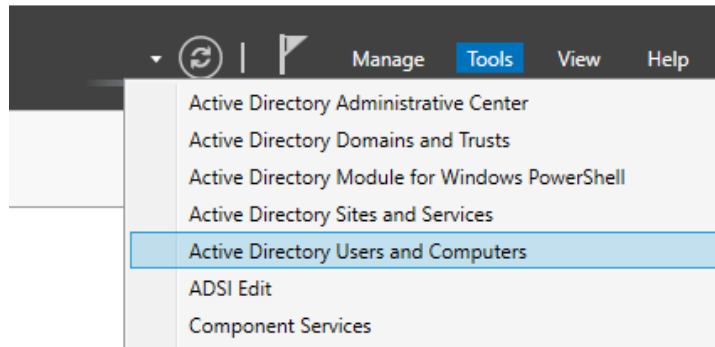


Promote to domain controller

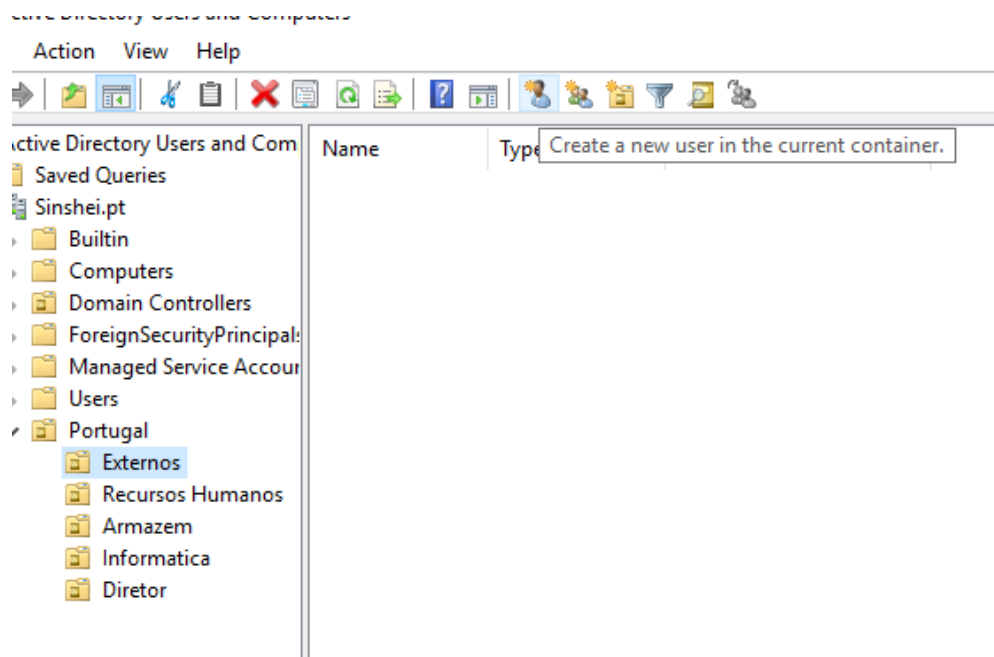


2. Crie a seguinte estrutura de Unidades Organizacionais





3. Crie um utilizador e grupo por departamento. (Se achar conveniente criar mais grupos noutras localizações pode fazê-lo).



New Object - User

Create in: Sinshei.pt/Portugal/Externos

First name: user Initials:

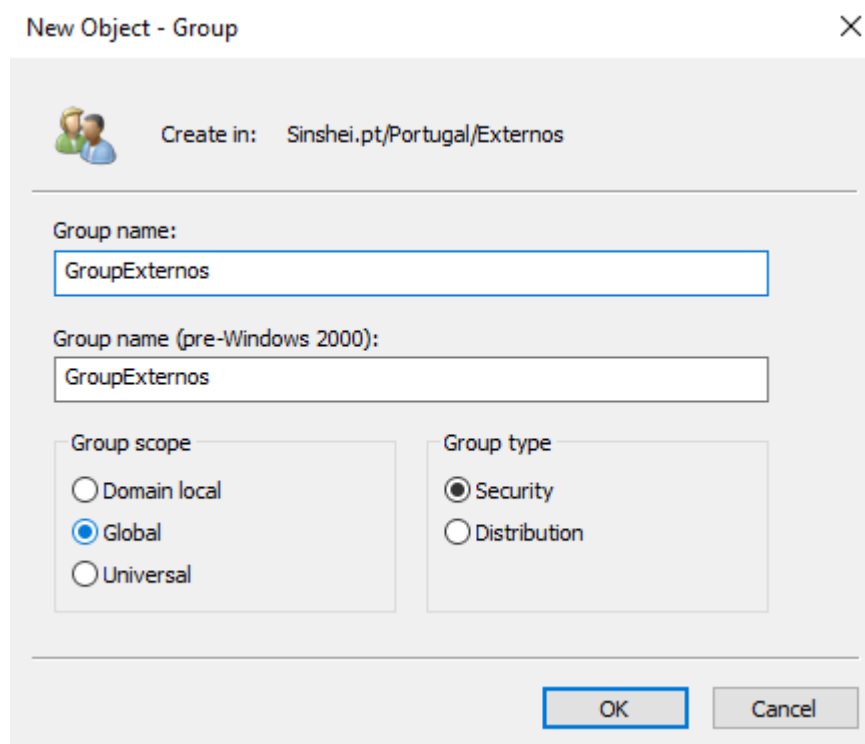
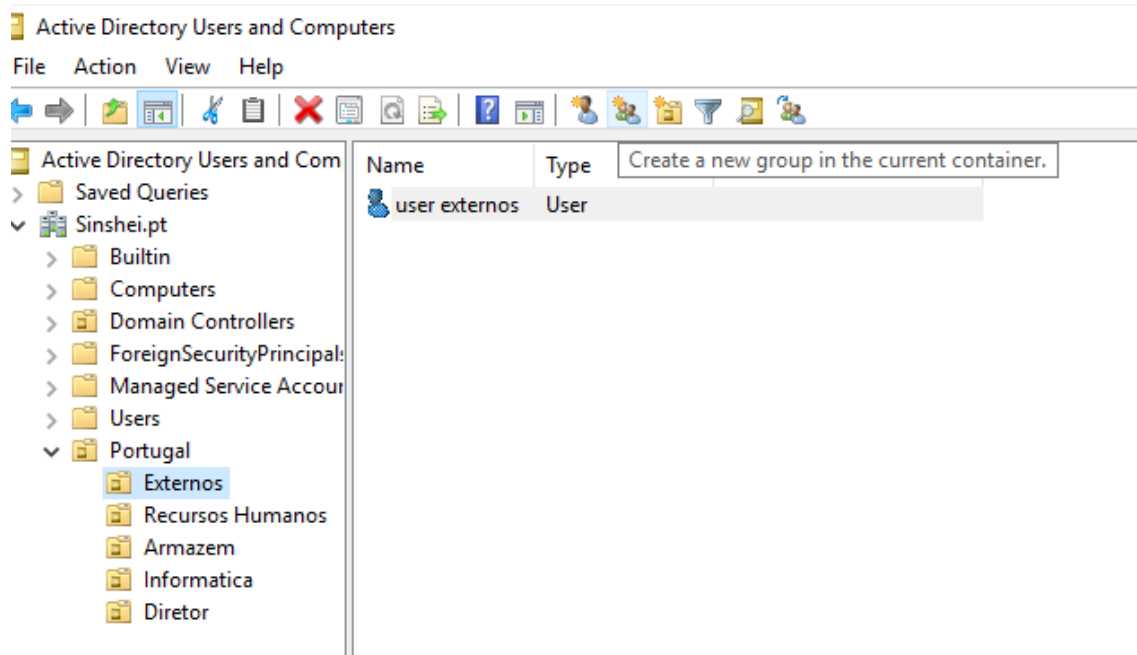
Last name: extemos

Full name: user extemos

User logon name: user_extemos @Sinshei.pt

User logon name (pre-Windows 2000): SINSHEI\ user_extemos

< Back Next > Cancel



FAZER PARA TODAS AS OUs

4. Todos os computadores terão de pertencer ao domínio Sinshei.pt exceto o computador SrvRouter01

Para ligar ao domínio, é preciso colocar IP da mesma rede do domínio (172.16...) e o DNS (172.16.0.1)

5. Todos os equipamentos do esquema com IP assinalado, deverão de ser configurados manualmente.

Configurar os IPs conforme tabela

6. Atribua os nomes corretos (como se encontra no esquema e na tabela) aos sistemas operativos das VM's.

No **SrvRouter**:

Instalar a **VMWare Tools**.

Desativar as **Firewalls**.

Retirar IPv6, colocar IP, máscara e DNS, mudar o nome da máquina.

Instalar mais placas de rede (172, 10, 30)

Instalar o **Router** (**Remote Access** -> -> -> **routing**).

No **SrvWeb01**:

Instalar a **VMWare Tools**.

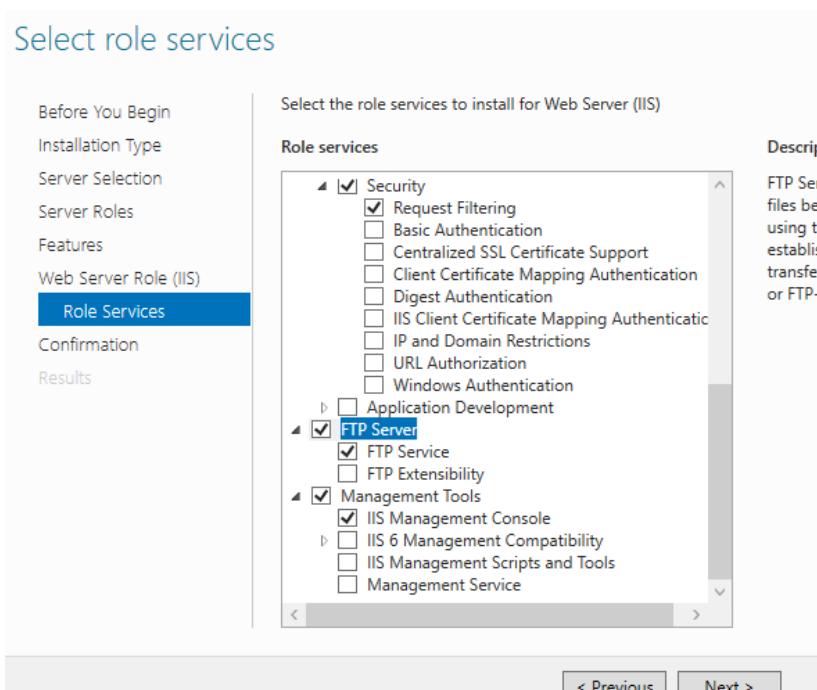
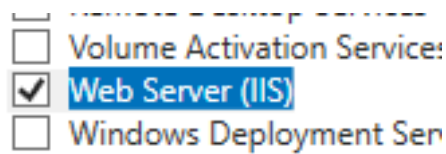
Desativar as **Firewalls**.

Retirar IPv6, colocar IP, máscara, DNS, mudar o nome da máquina (reinicia)

Ligar ao domínio.

Reinicia com nome do Domínio\administrator

Instalar o **WEBSERVER, FTP**.



No SrvRServices:

Instalar a **VMWare Tools**.

Desativar as **Firewalls**.

Retirar IPv6, colocar IP, máscara, DNS, mudar o nome da máquina (reinicia).

Ligar ao domínio.

Reinicia com nomedoDominio\administrator

Instalar o DHCP e o DNS.

No PC-cliente1:

Instalar a **VMWare Tools**.

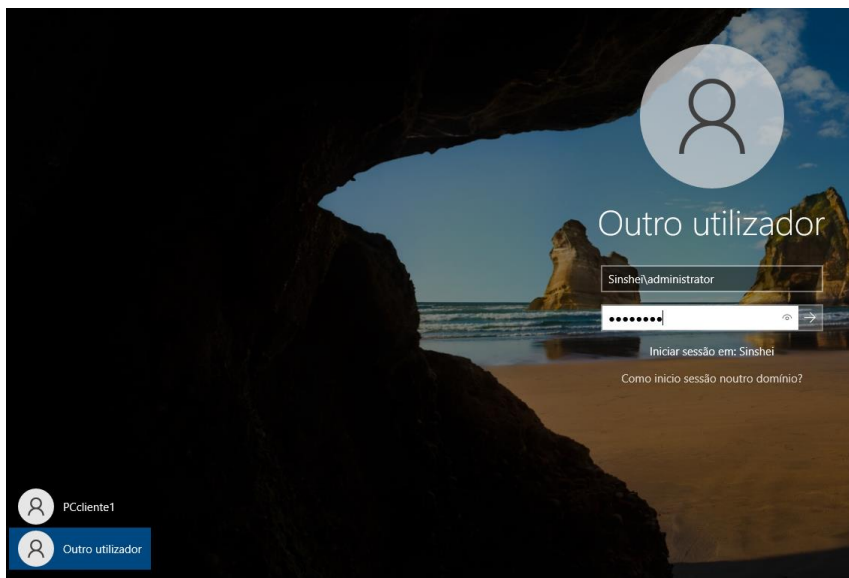
Desativar as **Firewalls**.

retirar IPv6, colocar um IP provisório (ex: 172.16.0.20), máscara de rede, DNS, mudar o nome da máquina (reinicia).

Ligar ao domínio.

Reinicia com nomedoDominio\administrator

Colocar IP automático e deixar DNS (acho eu, preciso confirmar o DNS)



No PC-cliente2:

Instalar a **VMWare Tools**.

Desativar as **Firewalls**.

retirar IPv6, colocar um IP provisório (ex: 172.16.0.20), máscara de rede, DNS, mudar o nome da máquina (reinicia).

Ligar ao domínio.

Reinicia com nomedoDominio\administrator

Colocar IP automático e deixar DNS (acho eu, preciso confirmar o DNS)

No **PC-cliente3**:

Instalar a **VMWare Tools**.

Desativar as **Firewalls**.

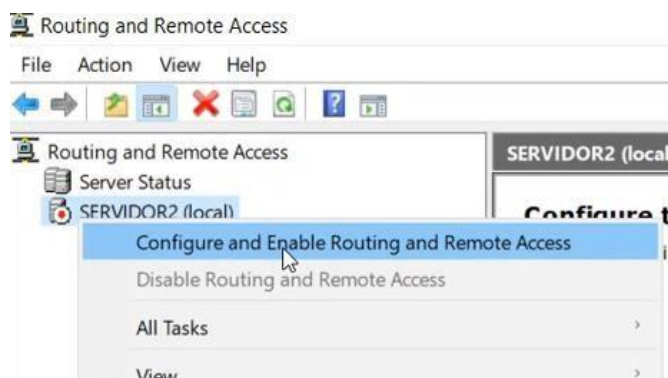
retirar IPv6, colocar um IP provisório (ex: 172.16.0.20), máscara de rede, DNS mudar o nome da máquina (reinicia).

Ligar ao domínio.

Reinicia com nomedoDominio\administrator

Colocar IP automático e deixar DNS (acho eu, preciso confirmar o DNS)

7. O SrvRouter01, fará a ligação entre os vários segmentos de rede.



Routing and Remote Access Server Setup Wizard

Configuration

You can enable any of the following combinations of services, or you can customize this server.

- ☐ Remote access (dial-up or VPN)
Allow remote clients to connect to this server through either a dial-up connection or a secure virtual private network (VPN) Internet connection.
- ☐ Network address translation (NAT)
Allow internal clients to connect to the Internet using one public IP address.
- ☐ Virtual private network (VPN) access and NAT
Allow remote clients to connect to this server through the Internet and local clients to connect to the Internet using a single public IP address.
- ☐ Secure connection between two private networks
Connect this network to a remote network, such as a branch office.
- ☒ Custom configuration
Select any combination of the features available in Routing and Remote Access.

< Back

Next >

Cancel

Routing and Remote Access Server Setup Wizard

Custom Configuration

When this wizard closes, you can configure the selected services in the Routing and Remote Access console.

Select the services that you want to enable on this server.

- ☐ VPN access
- ☐ Dial-up access
- ☐ Demand-dial connections (used for branch office routing)
- ☐ NAT
- ☒ LAN routing

< Back

Next >

Cancel

Routing and Remote Access Server Setup Wizard

Completing the Routing and Remote Access Server Setup Wizard

You have successfully completed the Routing and Remote Access Server Setup wizard.

Routing and Remote Access

Start the service

The Routing and Remote Access service is ready to use.

Start service

Cancel

the Routing and Remote Access console.

To close this wizard, click Finish.

< Back

Finish

Cancel

Routing and Remote Access

Server Status

SERVERIDOR2 (local)

Network Interfaces

Remote Access Logging & Policies

IPv4

General

Static Routes

IPv6

General

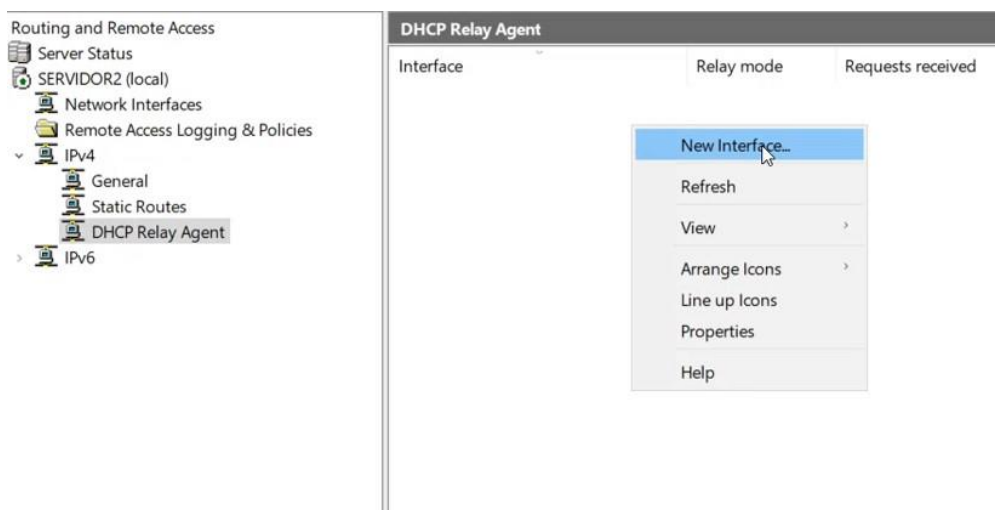
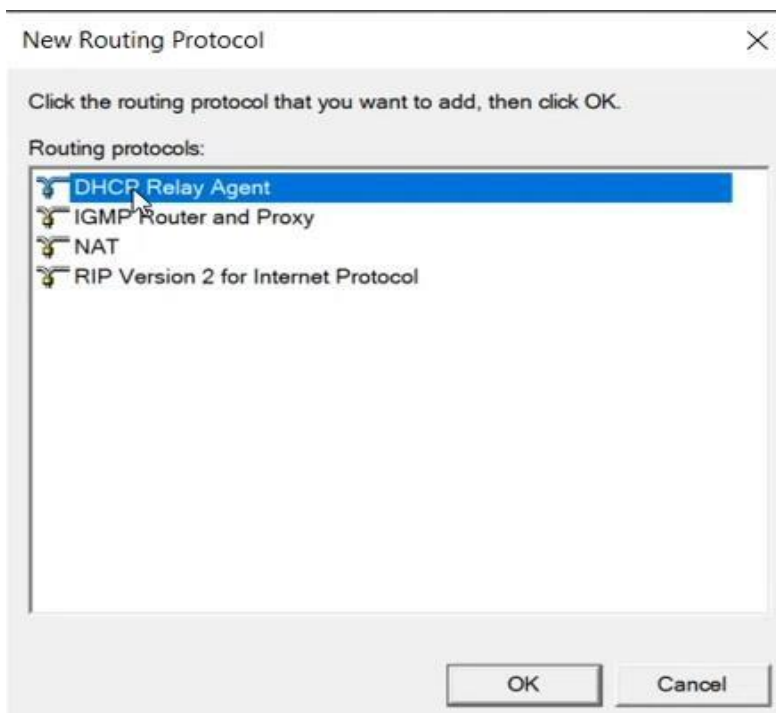
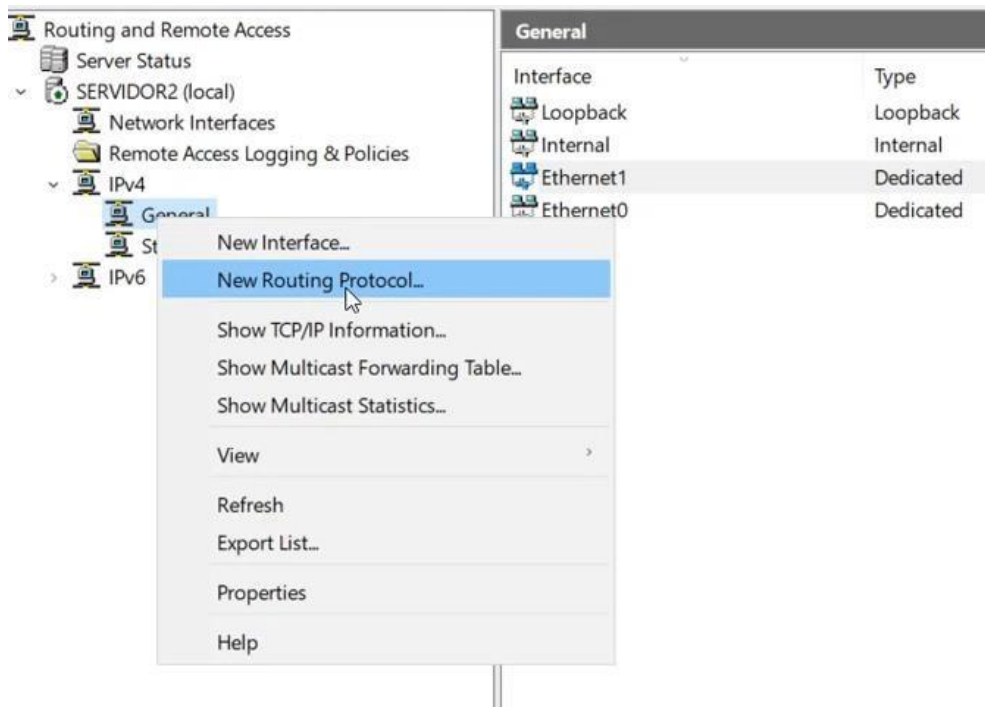
Interface

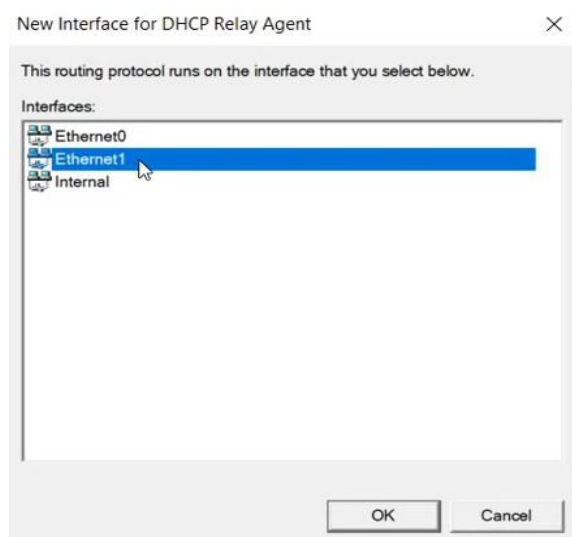
Loopback

Internal

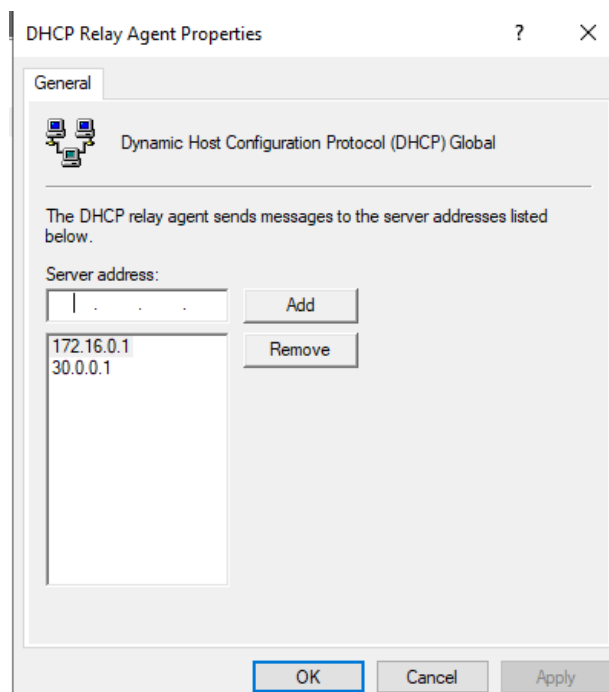
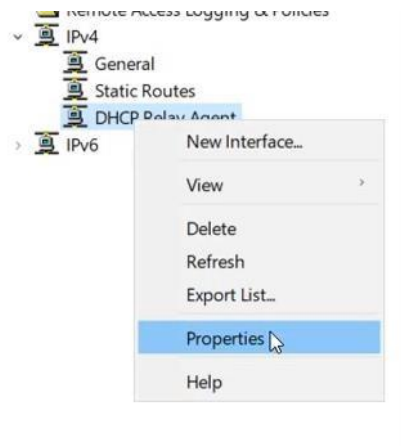
Ethernet1

Ethernet0



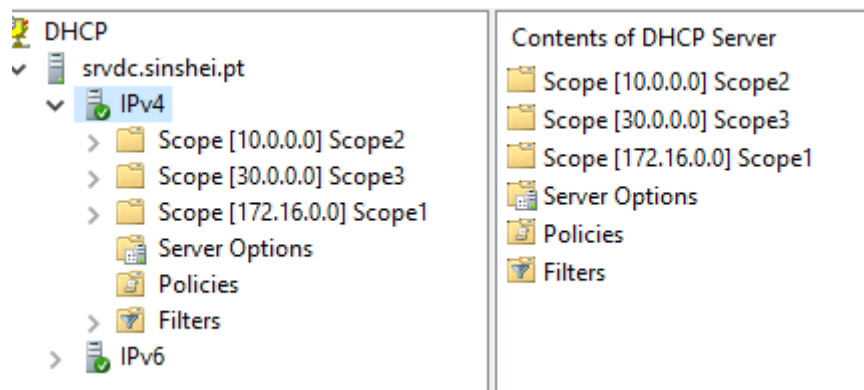


Para reencaminhar:

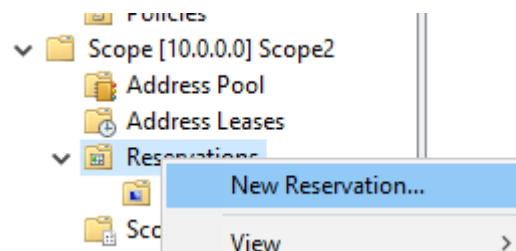


A default gateway do servidor 1 , é o IP do servidor router

8. Configure os seguintes Scopes no serviço DHCP do Servidor SRVDC (**Deverá configurar os Scopes de DHCP de modo a garantir o bom funcionamento da sua estrutura e com todos os parâmetros necessários**). Este servidor de DHCP terá de distribuir ip's para os 3 segmentos de rede.
- a. Scope1- 172.16.0.10-172.16.0.200
 - b. Scope2- 10.0.1.10-10.0.1.200
 - c. Scope3- 30.0.2.10-30.0.2.200



9. Deverá garantir que o PC-cliente2 receberá sempre o mesmo endereço IP.



New Reservation

Provide information for a reserved client.

Reservation name: PCcliente2

IP address: 10 . 0 . 0 . 22

MAC address: 08-00-27-AD-0E-8C

Description:

Supported types

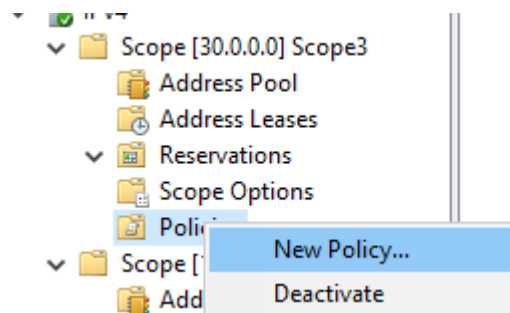
☒ Both

☐ DHCP

☐ BOOTP

Add Close

10. Deverá garantir que o PC-cliente3 receberá um ip entre o 30.0.2.70-30.0.2.80

A screenshot of the 'New Policy' dialog box. It has two fields: 'Policy Name:' with the text 'PCcliente3' entered, and 'Description:' which is empty.A screenshot of the 'Add/Edit Condition' dialog box. It contains the following elements:

- Criteria: MAC Address
- Operator: Equals
- Values (in hex): A list box containing '080027847C29'. To the right of the list box are 'Add' and 'Remove' buttons.
- At the bottom are 'Ok' and 'Cancel' buttons.

DHCP Policy Configuration Wizard

Configure settings for the policy

If the conditions specified in the policy match a client request, the settings will be applied.



A scope can be subdivided into multiple IP address ranges. Clients that match the conditions defined in a policy will be issued an IP Address from the specified range.

Configure the start and end IP address for the range. The start and end IP addresses for the range must be within the start and end IP addresses of the scope.

The current scope IP address range is 30.0.2.10 - 30.0.2.200

If an IP address range is not configured for the policy, policy clients will be issued an IP address from the scope range.

Do you want to configure an IP address range for the policy: ☒ Yes ☐ No

Start IP address: 30 . 0 . 2 . 70

End IP address: 30 . 0 . 2 . 80

Percentage of IP address range: 5,8

< Back Next > Cancel

DHCP

srvdc.sinshei.pt

IPv4

Scope [10.0.0.0] Scope2

Address Pool

Address Leases

Reservations

[10.0.2.20] PCcliente2

Scope Options

Policies

Scope [30.0.0.0] Scope3

Address Pool

Address Leases

Reservations

Scope Options

Policies

Scope [172.16.0.0] Scope1

Server Options

Policies

Filters

IPv6

Policy Name

PCcliente3

Description

Processin...

1

Level

Scope

Address Range

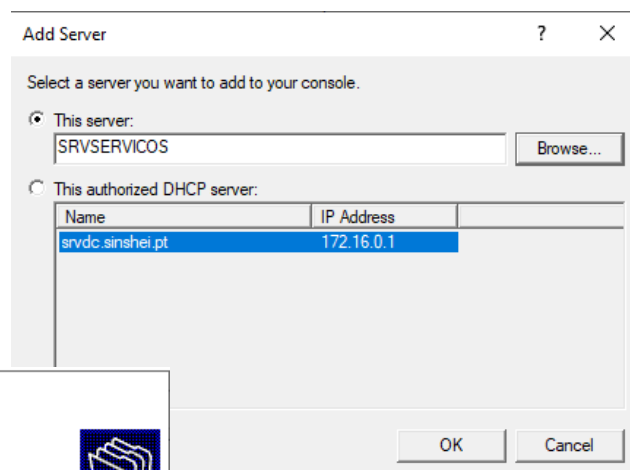
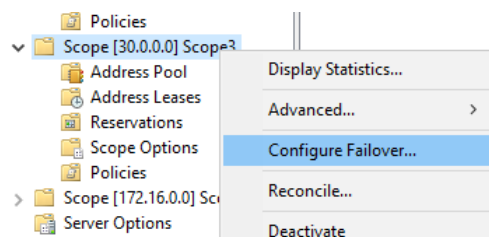
30.0.2.70 - 30.0.2.80

State

Enabled

11. No serviço de DHCP, configure um sistema tolerante a falhas/Failover entre o SrvDC e o SRVservicos, com as seguintes características: a. Apenas replique o Scope da rede 30.0.0.0/8

- Mode: Hot Standby
- Local server 80%
- Partner server 20%
- State switch interval 5 minutos
- Message authentication – 123456



Configure Failover

Create a new failover relationship

Create a new failover relationship with partner srvservicos

Relationship Name:

Maximum Client Lead Time: hours minutes

Mode:

Load Balance Percentage

Local Server: %

Partner Server: %

☒ State Switchover Interval: minutes

☒ Enable Message Authentication

Shared Secret:

< Back **Next >** Cancel

12. No SRVDC configure no DNS a Zona de Pesquisa inversa, do segmento de rede 172.16...

New Zone Wizard

Reverse Lookup Zone Name
A reverse lookup zone translates IP addresses into DNS names.

To identify the reverse lookup zone, type the network ID or the name of the zone.

☒ Network ID:
172.16

The network ID is the portion of the IP addresses that belongs to this zone. Enter the network ID in its normal (not reversed) order.

If you use a zero in the network ID, it will appear in the zone name. For example, network ID 10 would create zone 10.in-addr.arpa, and network ID 10.0 would create zone 0.10.in-addr.arpa.

☐ Reverse lookup zone name:
16.172.in-addr.arpa

< Back Next > Cancel

☐ Allow only secure dynamic updates (recommended for Active Directory-integrated zones)
This option is available only for Active Directory-integrated zones.

☒ Allow both nonsecure and secure dynamic updates
Dynamic updates of resource records are accepted from both trusted and untrusted sources.
Warning: This option is a significant security vulnerability accepted from untrusted sources.

☐ Do not allow dynamic updates
Dynamic updates of resource records are not accepted. These records must be created manually.

File	Action	View	Help
DNS			
SRVDC			
Forward Lookup Zones			
Reverse Lookup Zones			
16.172.in-addr.arpa			
Trust Points			
Conditional Forwarders			

Name	Type	Status	DNSSEC Status	Key I
16.172.in-addr.arpa	Active Directory-Integrated Pr...	Running	Not Signed	

13. O SrvServicos terá de conseguir fazer resolução dos Hostnames da Zona Sinshei.pt

14. Configure uma Zona Primaria de pesquisa direta de nome EPSI.local no Srvservicos.

- a. Crie um registo A : SrvServicos – 30.0.0.1
- b. Crie um registo A : Srvdc – 172.16.0.1

New Zone Wizard ✕

Zone Name
What is the name of the new zone?

The zone name specifies the portion of the DNS namespace for which this server is authoritative. It might be your organization's domain name (for example, microsoft.com) or a portion of the domain name (for example, newzone.microsoft.com). The zone name is not the name of the DNS server.

Zone name:

< Back **Next >** Cancel

New Host ✕

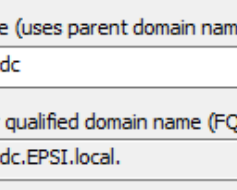
Name (uses parent domain name if blank):

Fully qualified domain name (FQDN):

IP address:

☐ Create associated pointer (PTR) record

Add Host Cancel



New Host

Name (uses parent domain name if blank):

Srvdc

Fully qualified domain name (FQDN):

Srvdc.EPSI.local.

IP address:

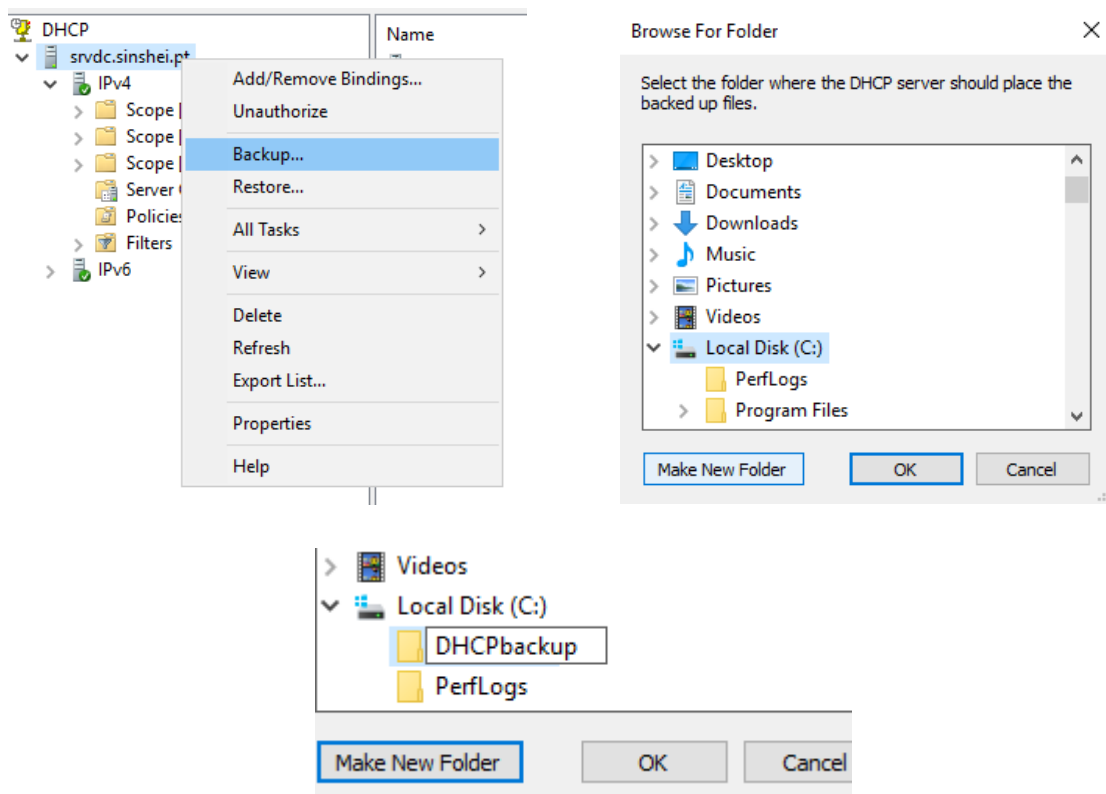
172.16.0.1

☐ Create associated pointer (PTR) record

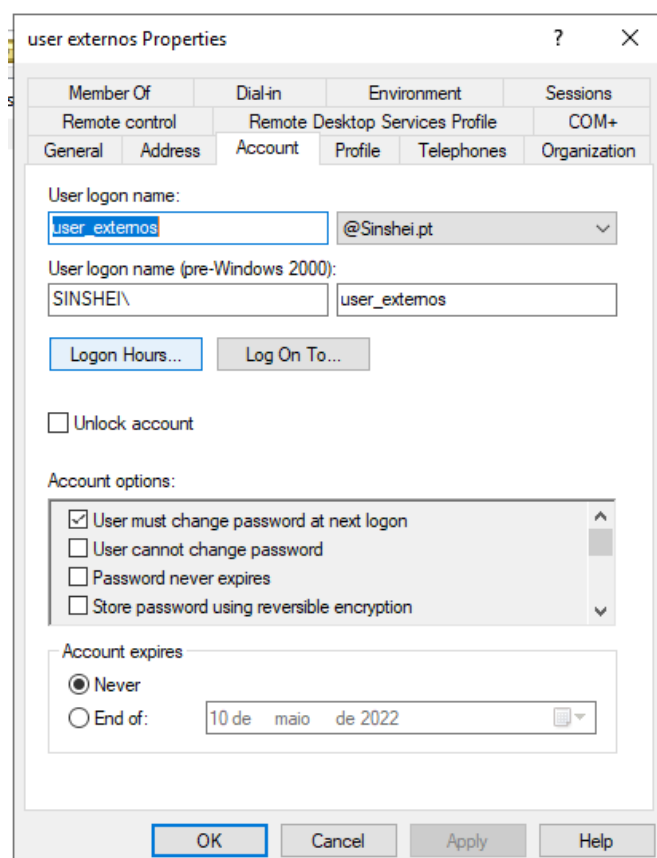
Add Host Done

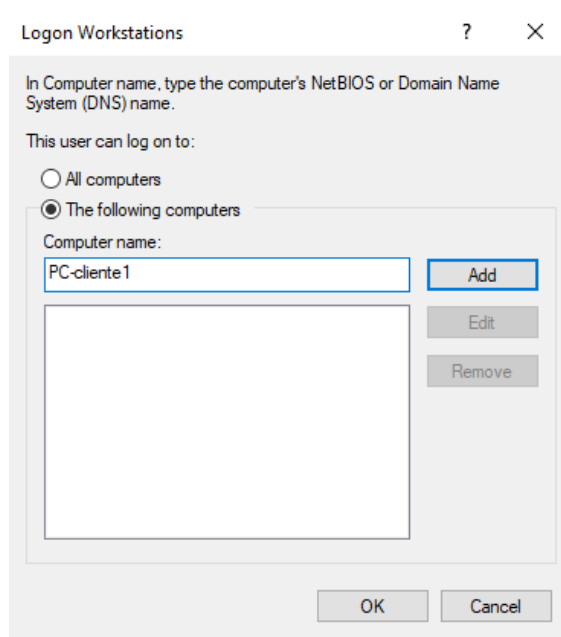
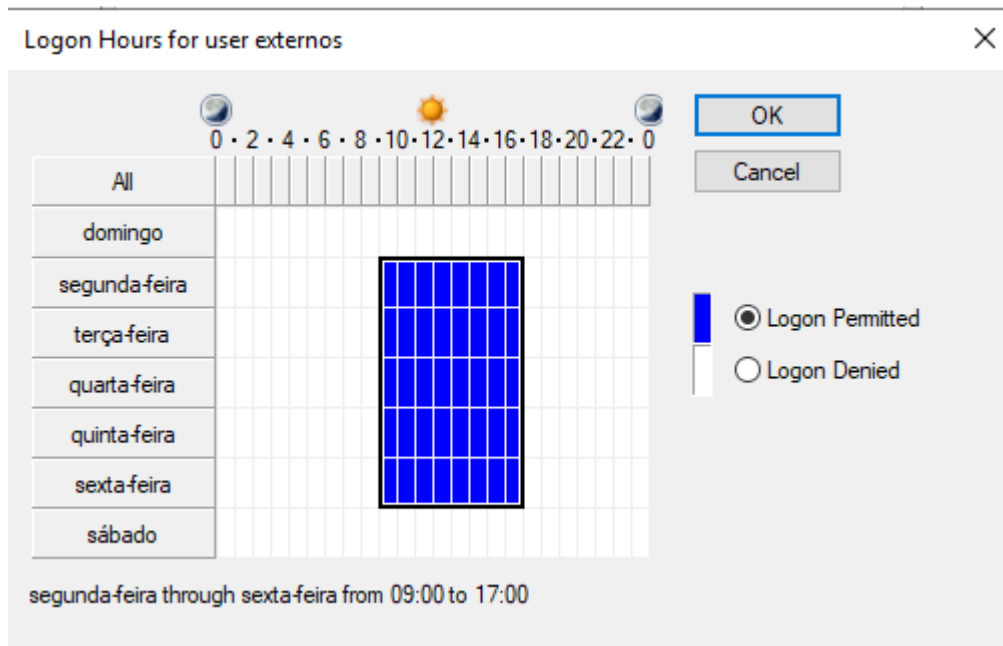
15. O SRVDC não deverá de fazer resolução de nomes da Zona EPSI.local, mas deverá reencaminhar os pedidos para o servidor SrvServicos.
16. O PC-cliente3 só fará pesquisas de DNS no SrvServicos. Todos os outros computadores farão pesquisas em ambos os servidores de DNS.

17. No Srvdc efetue um backup do serviço DHCP, para a pasta c:\DHCPbackup



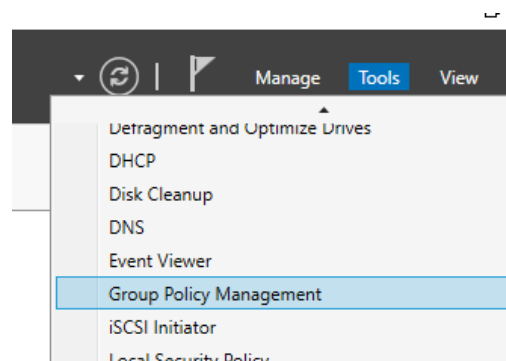
18. Os utilizadores externos só podem fazer login, de segunda a sexta-feira das 9h00 até às 17h00. E no computador PC-cliente1.

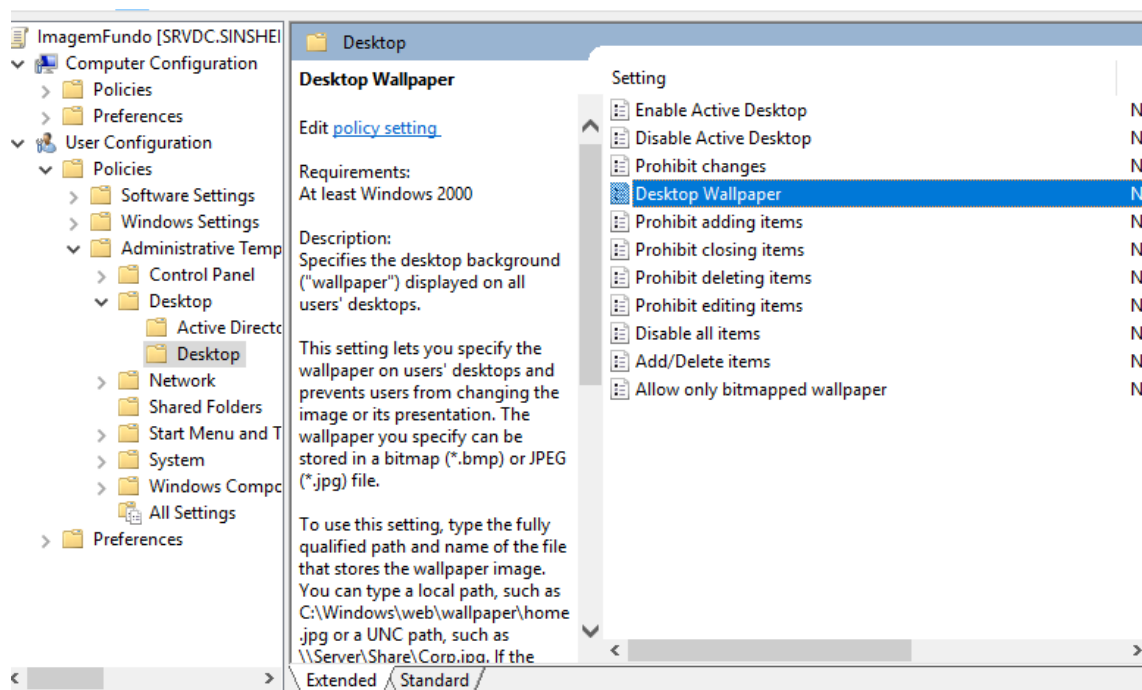
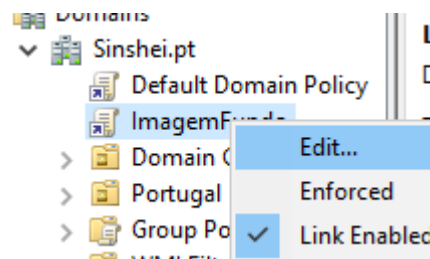
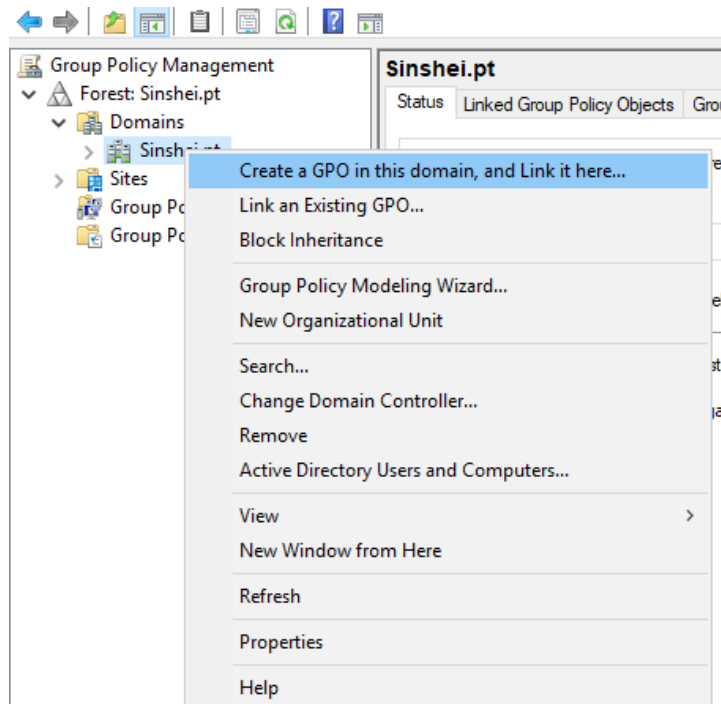


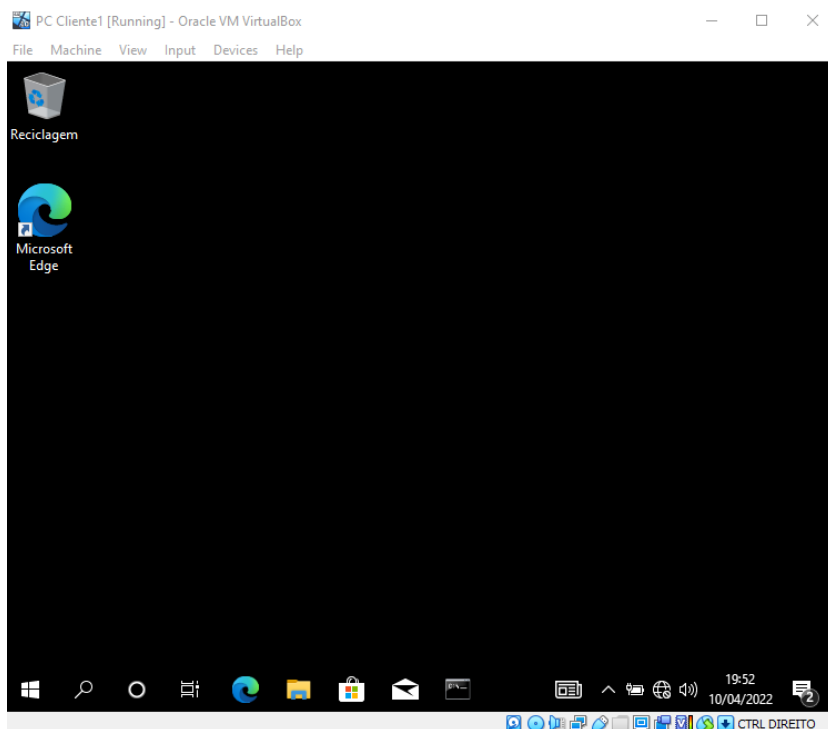
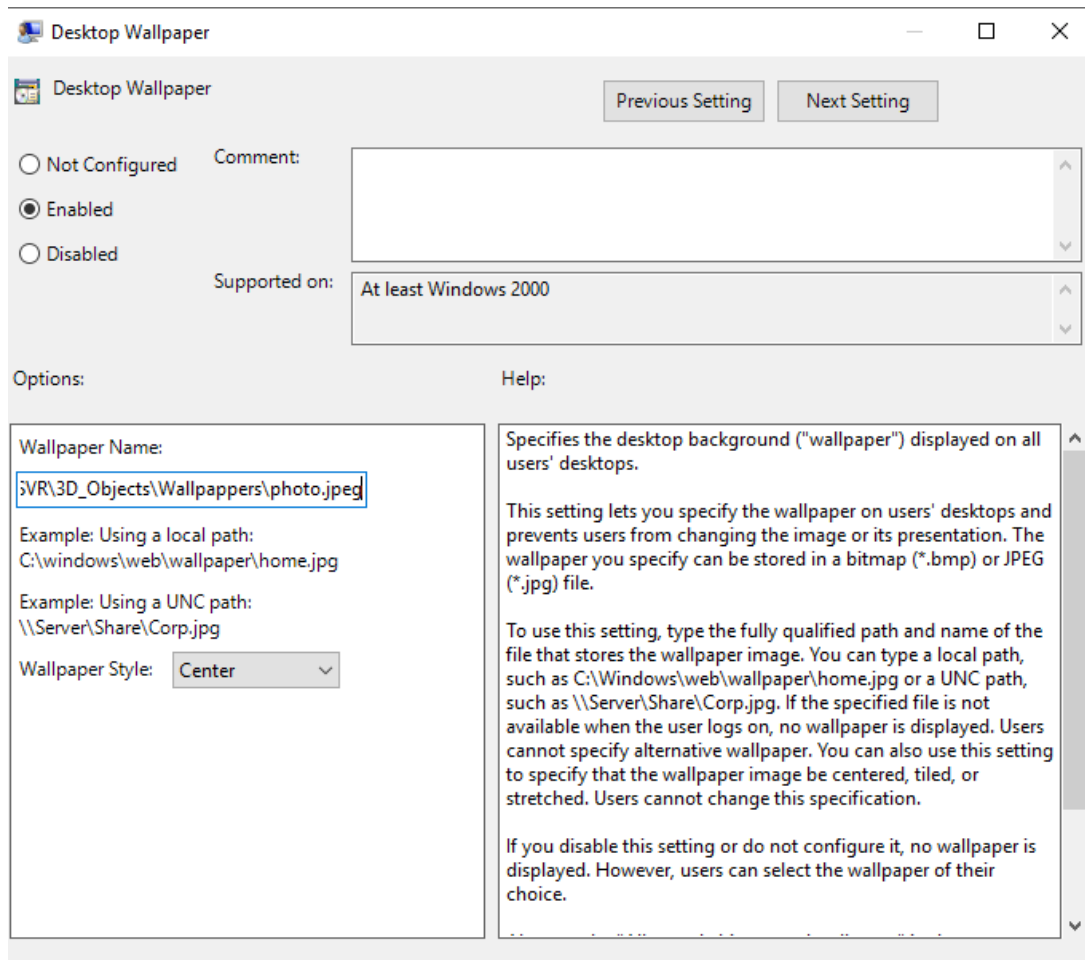


19. Crie a seguinte GPO:

- Todos os utilizadores de Portugal deverão ter a mesma imagem de fundo do ambiente de trabalho.



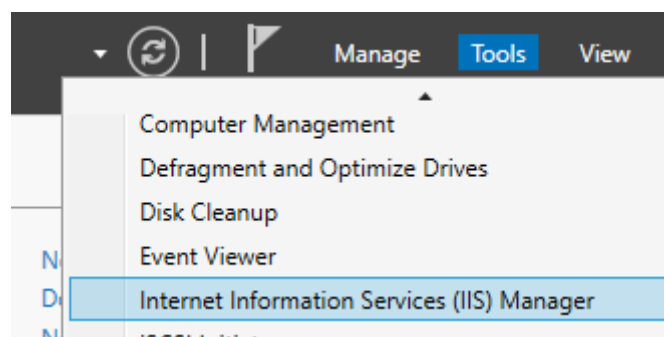


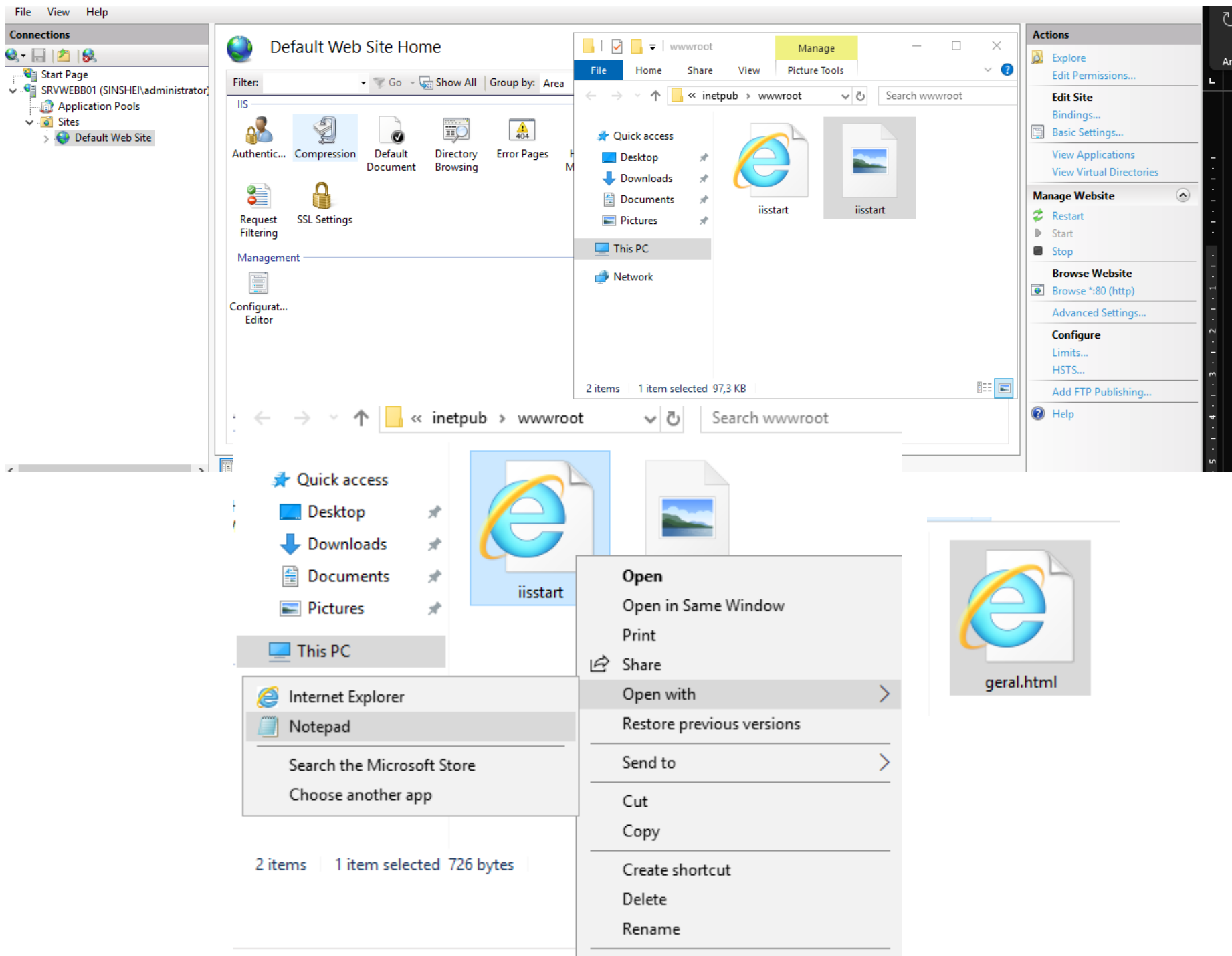


(Não me aparece a imagem, fica preto)

20. Crie os seguintes Sites com as configurações que achar adequadas ao bom funcionamento do que está a ser pedido. O FTP terá de dar acesso aos ficheiros do WebSite Geral.

	IP	Protocolo	FQDN	Porta	SERVIDORES	Default Document	Autenticação
WEBSITE Geral	172.16.4.240/16	HTTP	www.sinshei.pt	80	SRVWEB01	geral.html	Anonimo
		HTTP	www.epsi.local	2277			
WEBSITE RH	172.16.4.30/16	HTTP	RH.epsi.local	80	SRVWEB01	index.html	Anonimo
		HTTPS	RH.sinshei.pt	443			
WEBSITE Internal	172.16.4.20/16	HTTP	intranet.sinshei.pt	43000	SRVWEB01	intranet.html	Windows Authentication
FTPSITE	172.16.0.10/16	ftp		21	SRVWEB01		Basic – Grupo da Informatica





Internet Information Services (IIS) Manager

SRVWEBB01 > Sites > Default Web Site

File View Help

Connections

- Start Page
- SRVWEBB01 (SINSHEI\administrator)
 - Application Pools
 - Sites
 - Default Web Site

Default Document

Use this feature to specify the default file(s) to return when a client does not request a specific file. Set default documents in order of priority.

Name	Entry Type
Default.htm	Inherited
Default.asp	Inherited
index.htm	Inherited
index.html	Inherited
iisstart.htm	Inherited

Actions

- [Add...](#)
- [Disable](#)
- [Revert To Parent](#)
- [Help](#)

Features View Content View

Configuration: 'Default Web Site' web.config

Name	Entry Type
<u>geral.html</u>	Local
Default.htm	Inherited
Default.asp	Inherited
index.htm	Inherited
index.html	Inherited
iisstart.htm	Inherited

