

Windows hálózati adminisztráció

segédlet a gyakorlati órákhoz

Szerver oldal:



Windows Server 2012

Kliens oldal:

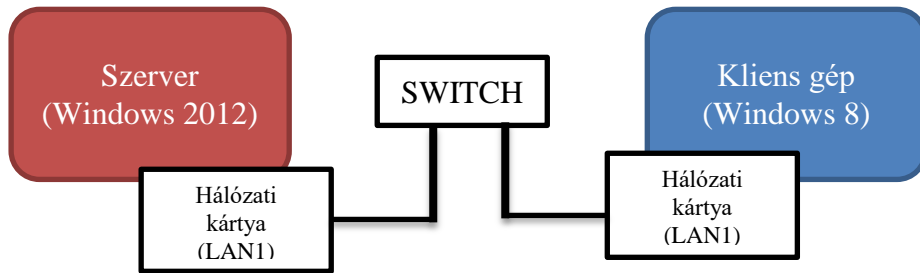


Windows 8

Tartományvezérlő és a DNS

1. A belső hálózat konfigurálása

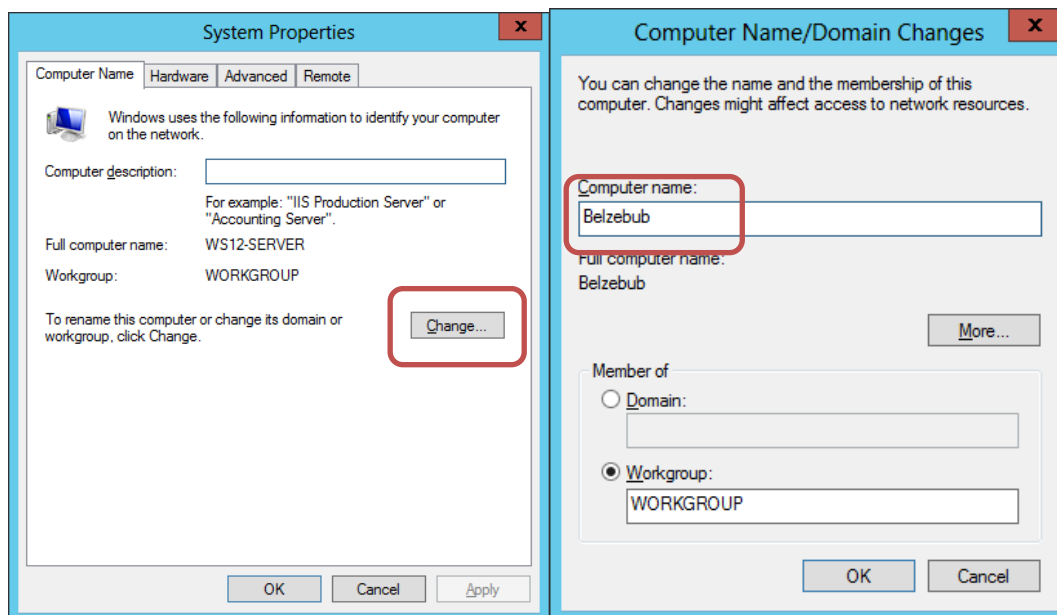
Hozzuk létre a virtuális belső hálózatunkat.



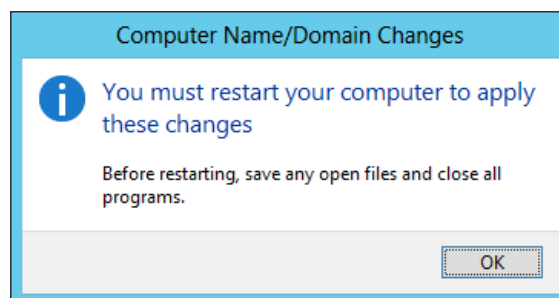
A szerver konfigurálása

IP címe: 192.168.15.254/24 DNS: 127.0.0.1

Beállítjuk a kiszolgáló NetBios nevét. (Computer jobb kattintás -> Properties)

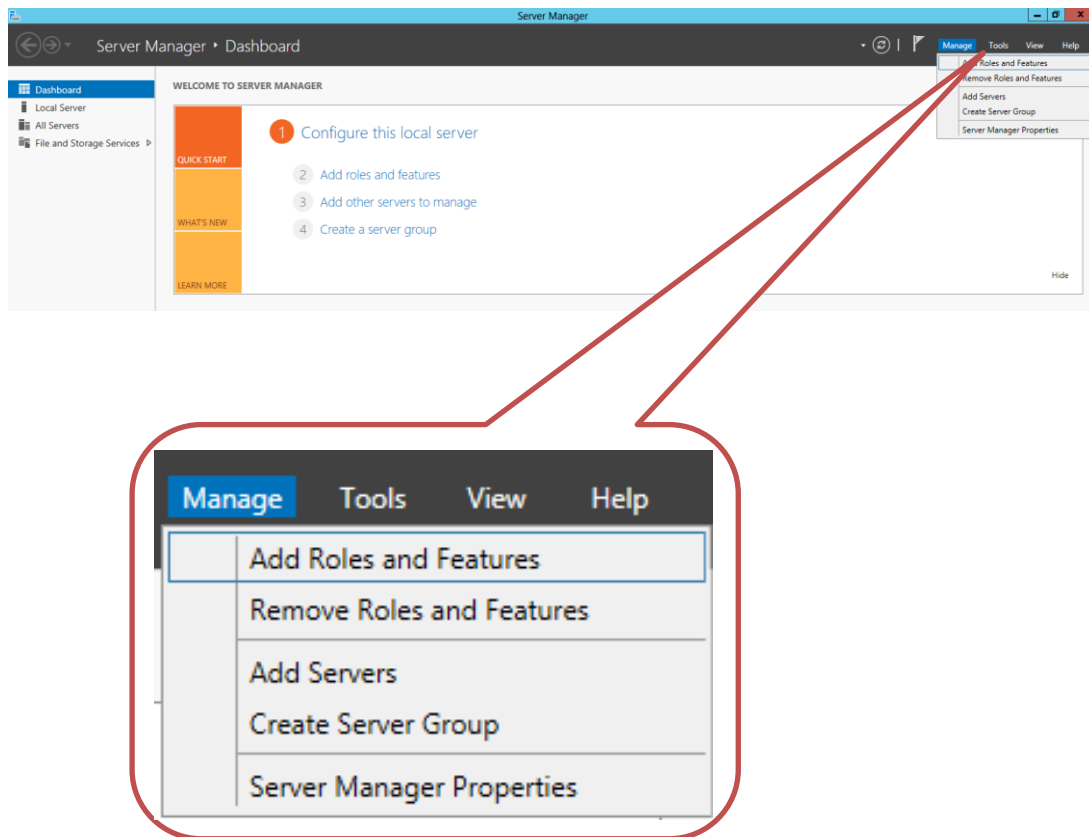


A beállítást követően újra kell indítani a rendszerünket:



Az újraindítást követően Telepítjük az **AD-DS** szerepkört a Win2012 tartományvezérlővé konfigurálása érdekében.

Indítsuk el a szokásos telepítési varázslót:



☒ **Role-based or feature-based installation**

Configure a single server by adding roles, role services, and features.

☐ **Remote Desktop Services installation**

Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

☒ **Select a server from the server pool**

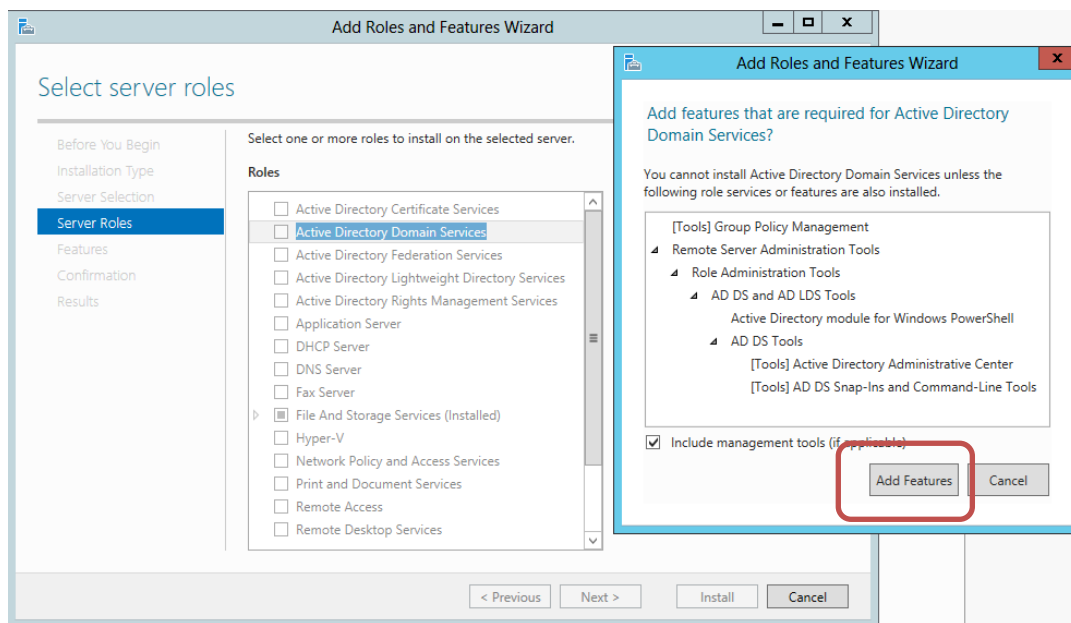
☐ **Select a virtual hard disk**

Server Pool

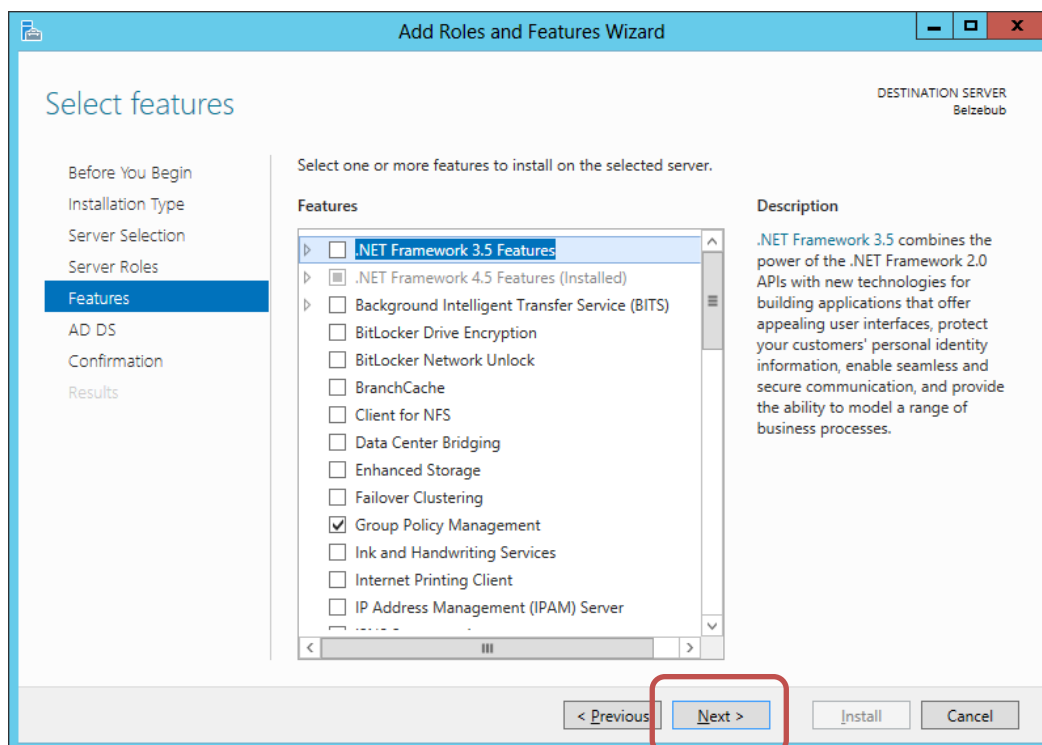
Filter:

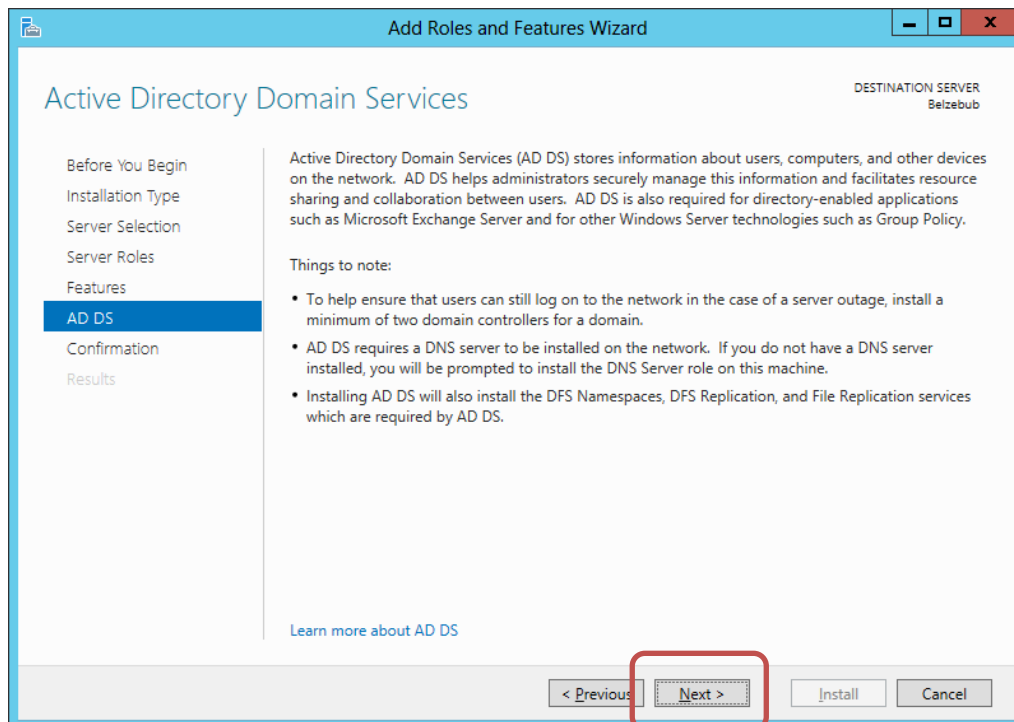
Name	IP Address	Operating System
Belzebub	192.168.15.254...	Microsoft Windows Server 2012

Kiválasztjuk az **Active Directory Domain Services**-t:

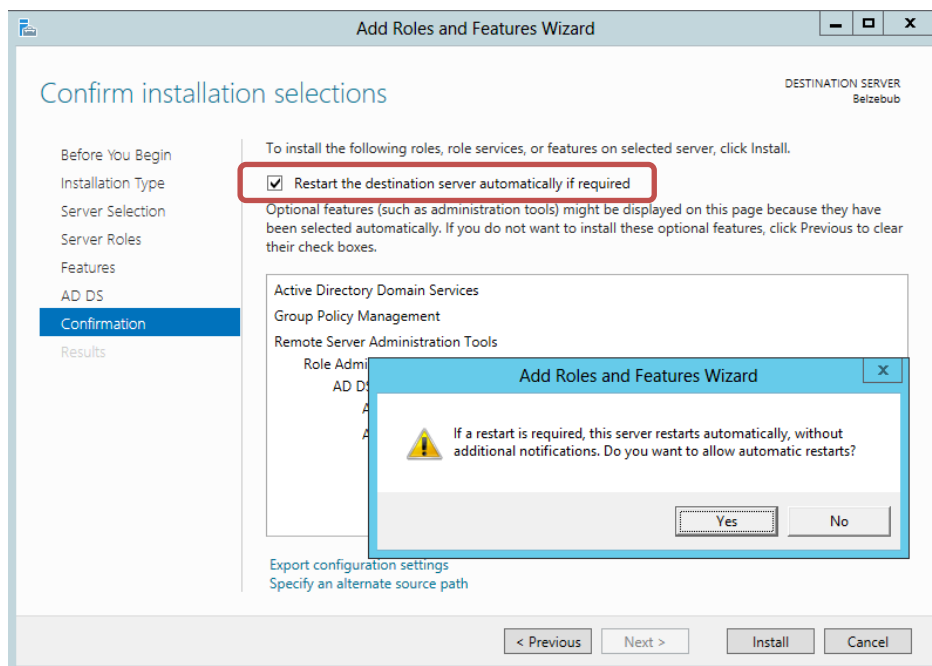


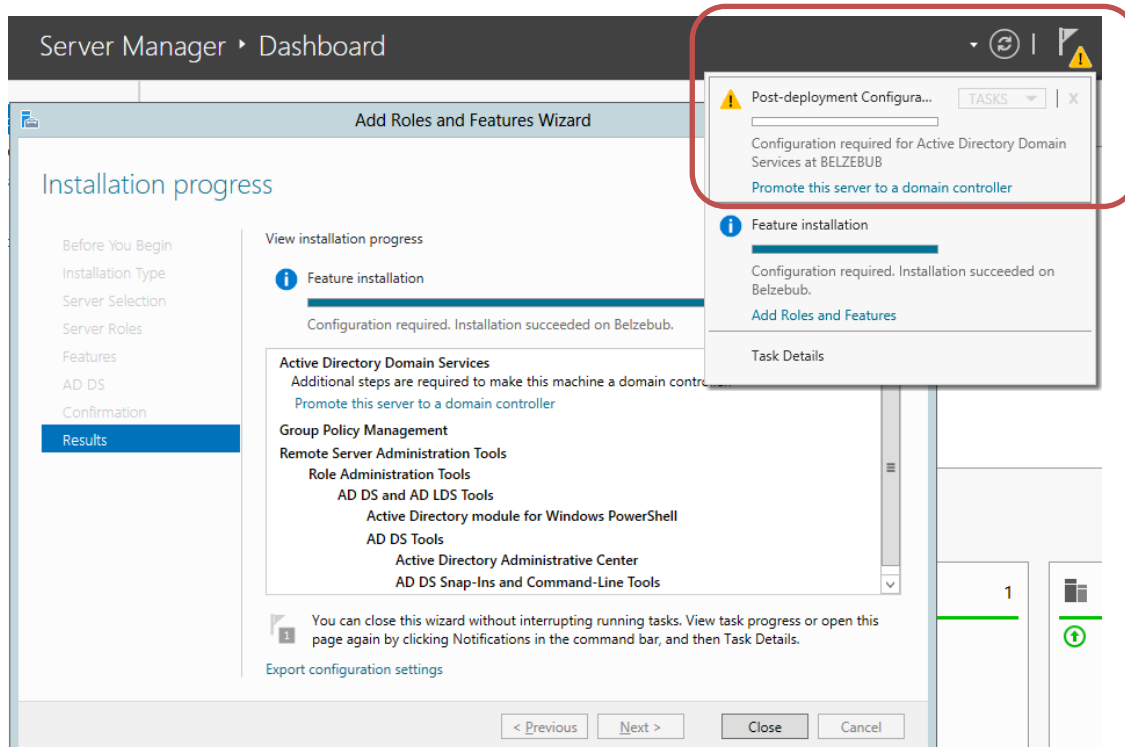
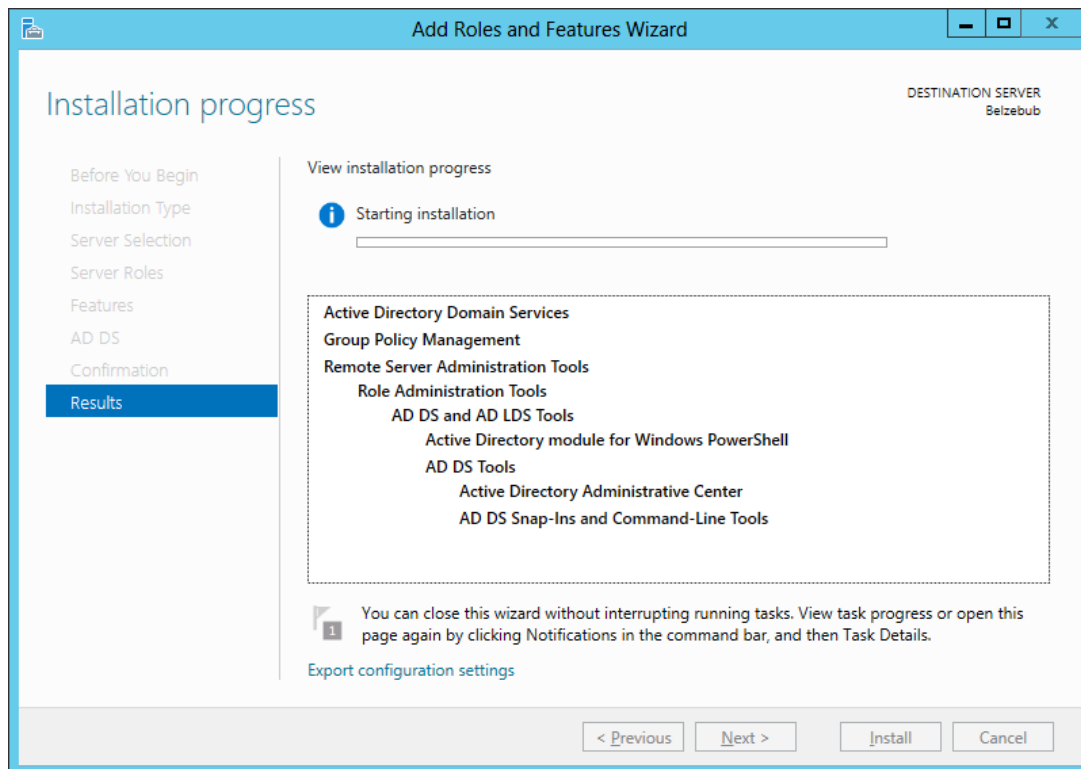
A Select Features lapon a Group Policy Management automatikusan kiválasztásra kerül:



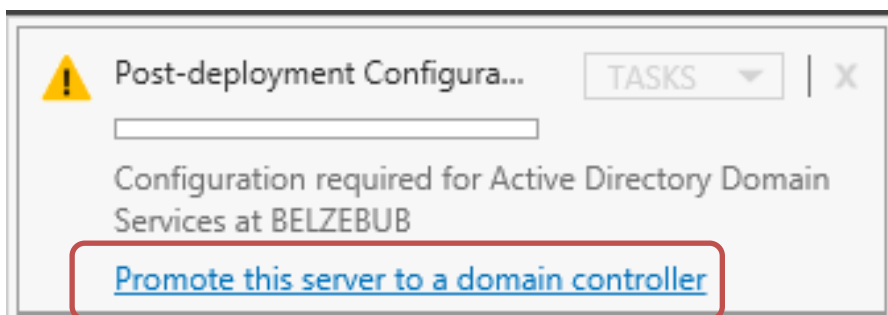


Engedélyezzük a szükség szerinti automatikus újraindítást, majd **Install**.

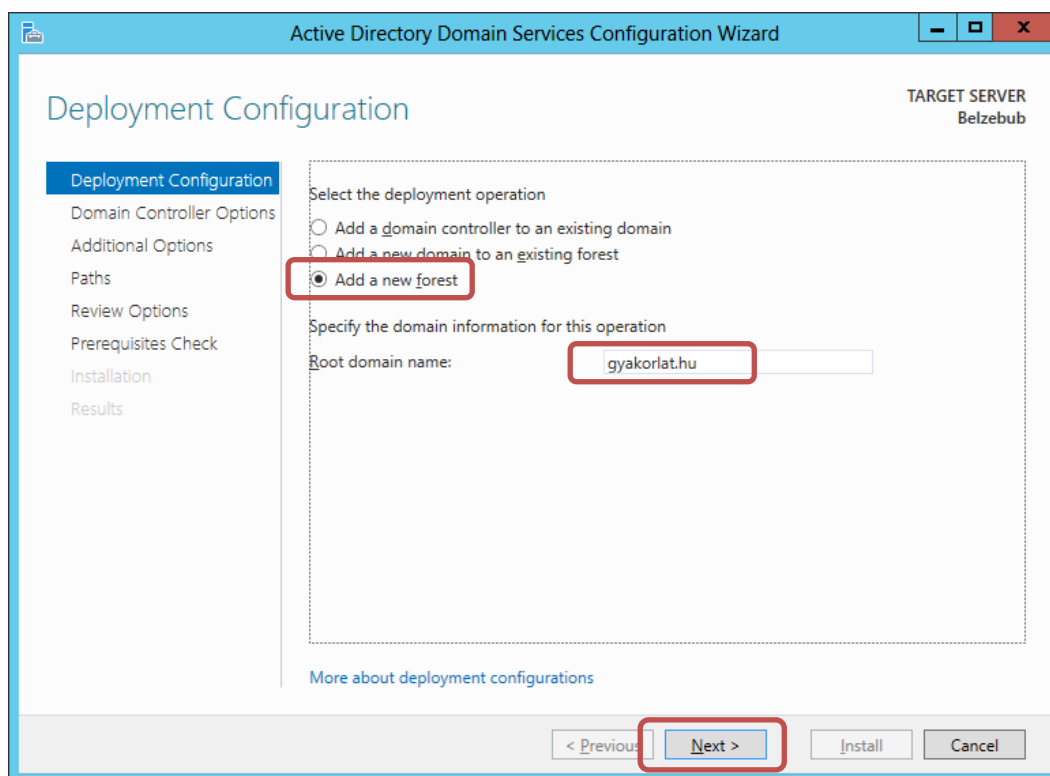




A telepítést követően tartományvezérlővé léptetjük elő a szerverünket.



Egy új erdőt hozunk létre. A tartományunk neve **gyakorlat.hu** lesz:



Mivel csak 2012-es szerverünk és W8 kliensünk lesz, ezért úgy az erdő, mint a tartomány **működési szintjét Windows Server 2012-re** választjuk.

A helyreállítási módban alkalmazott jelszavunk a rendszergazda legyen:

Active Directory Domain Services Configuration Wizard

Domain Controller Options

TARGET SERVER
Belzebug

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Select functional level of the new forest and root domain

Forest functional level: Windows Server 2012

Domain functional level: Windows Server 2012

Specify domain controller capabilities

☒ Domain Name System (DNS) server

☒ Global Catalog (GC)

☐ Read only domain controller (RODC)

Type the Directory Services Restore Mode (DSRM) password

Password:

Confirm password:

More about domain controller options

< Previous Next > Install Cancel

A DNS-t majd később konfiguráljuk:

Active Directory Domain Services Configuration Wizard

DNS Options

TARGET SERVER
Belzebug

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

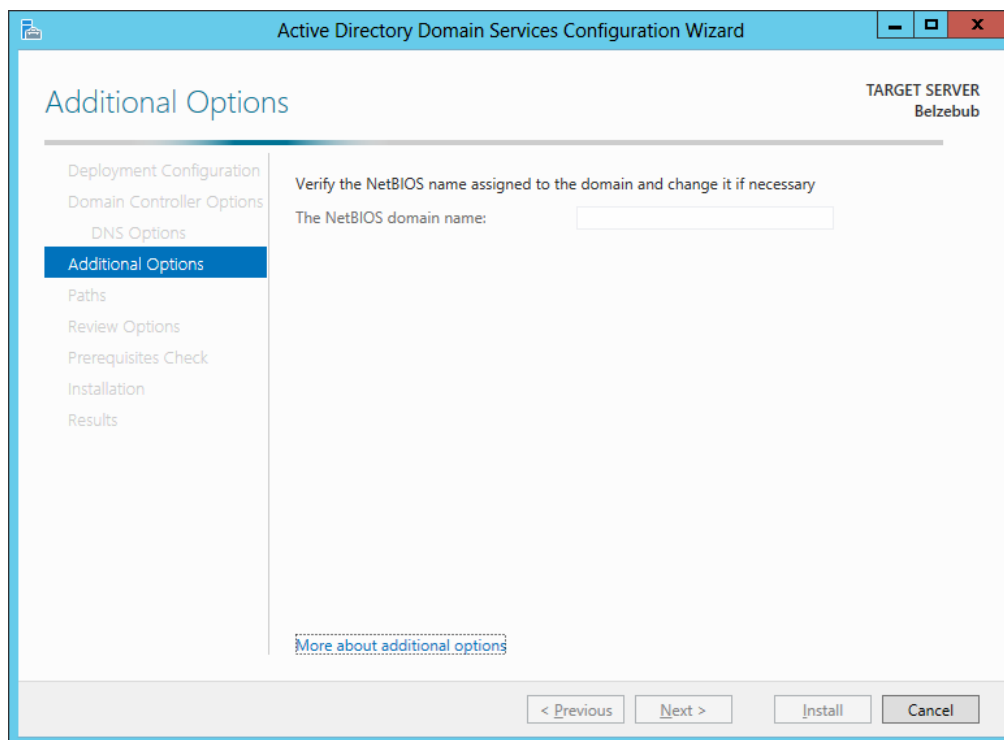
Specify DNS delegation options

☐ Create DNS delegation

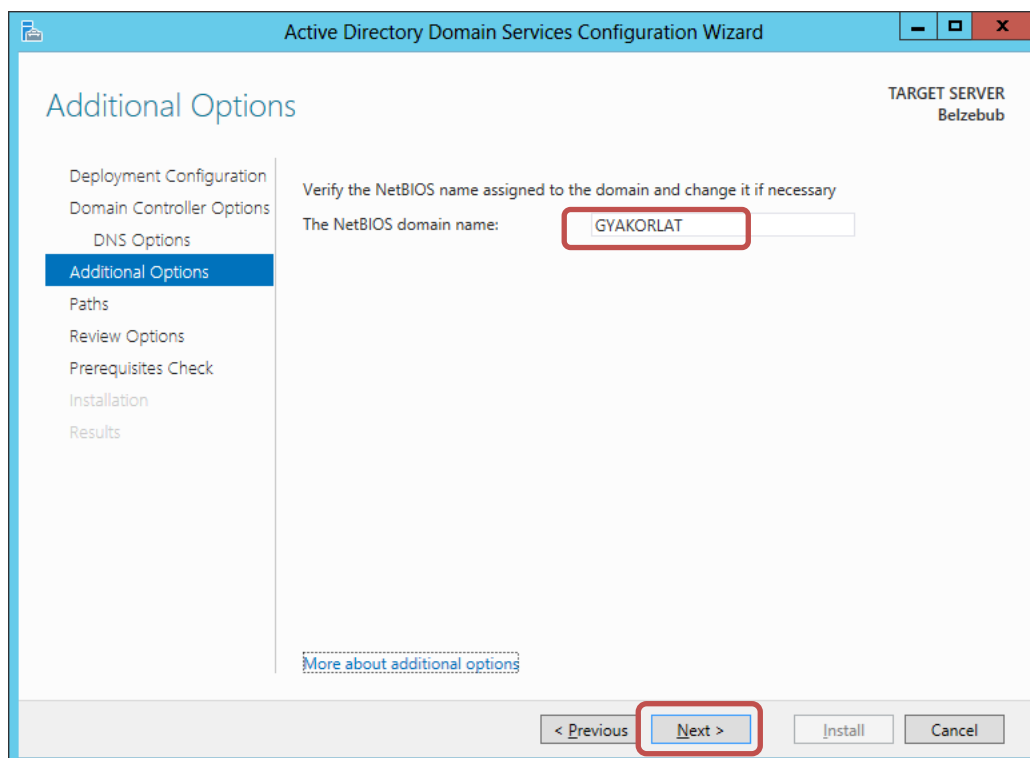
More about DNS delegation

< Previous Next > Install Cancel

A telepítő folytatódik:



A tartományunk NetBIOS neve legyen gyakorlat.



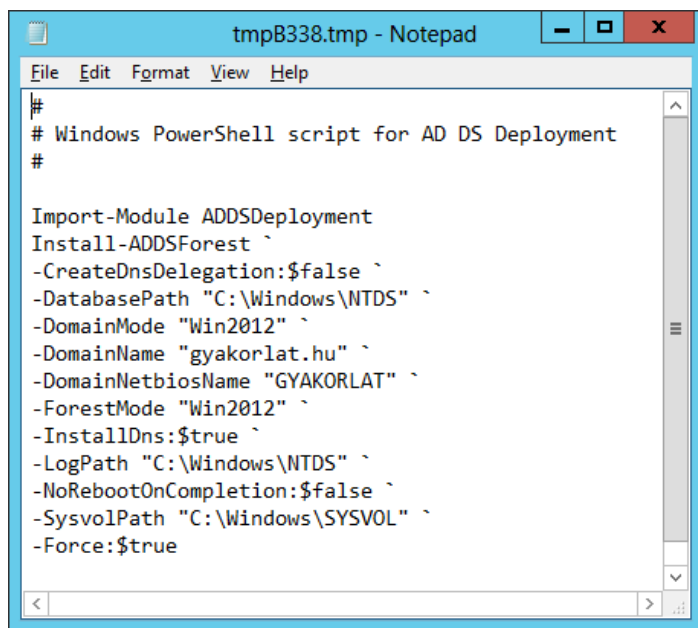
Az AD különböző munkamappáinak elérési útvjai:

The screenshot shows the 'Paths' step of the Active Directory Domain Services Configuration Wizard. The window title is 'Active Directory Domain Services Configuration Wizard'. On the left, a navigation pane lists steps: Deployment Configuration, Domain Controller Options, DNS Options, Additional Options, Paths (selected), Review Options, Prerequisites Check, Installation, and Results. The main area is titled 'Specify the location of the AD DS database, log files, and SYSVOL'. It contains three input fields: 'Database folder:' with the value 'C:\Windows\NTDS', 'Log files folder:' with the value 'C:\Windows\NTDS', and 'SYSVOL folder:' with the value 'C:\Windows\SYSVOL'. Each field has a browse button (three dots). At the bottom right, the 'TARGET SERVER' is listed as 'Belzebug'. At the bottom, there are buttons for '< Previous', 'Next >' (highlighted with a red rectangle), 'Install', and 'Cancel'. A link 'More about Active Directory paths' is also present.

A telepítő folytatódik:

The screenshot shows the 'Review Options' step of the Active Directory Domain Services Configuration Wizard. The window title is 'Active Directory Domain Services Configuration Wizard'. The navigation pane on the left is the same as in the previous screenshot, with 'Review Options' now selected. The main area is titled 'Review your selections:'. It contains a list of configuration options: 'Configure this server as the first Active Directory domain controller in a new forest.', 'The new domain name is "gyakorlat.hu". This is also the name of the new forest.', 'The NetBIOS name of the domain: GYAKORLAT', 'Forest Functional Level: Windows Server 2012', 'Domain Functional Level: Windows Server 2012', and 'Additional Options:'. Under 'Additional Options', there are three checkboxes: 'Global catalog: Yes', 'DNS Server: Yes', and 'Create DNS Delegation: No'. At the bottom right, the 'TARGET SERVER' is listed as 'Belzebug'. At the bottom, there are buttons for '< Previous', 'Next >' (highlighted with a red rectangle), 'Install', and 'Cancel'. A link 'More about installation options' is also present. At the bottom right of the main area, there is a button labeled 'View script'.

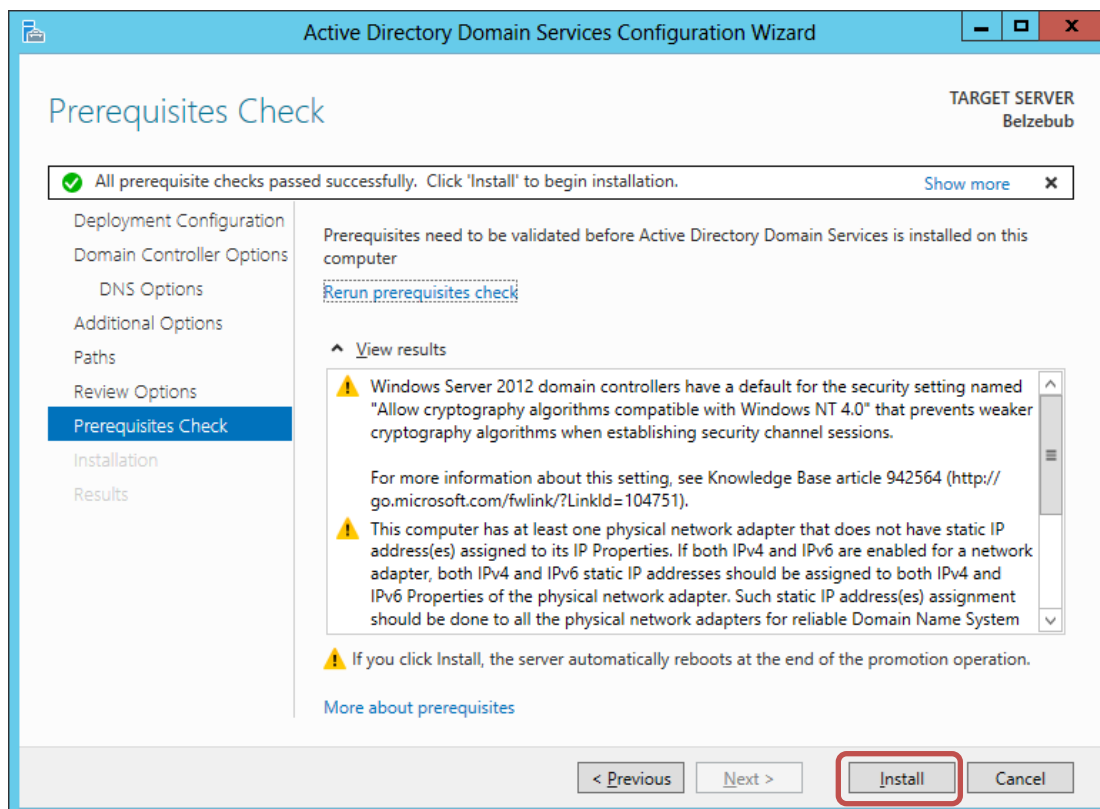
A „View script” segítségével meg tudjuk tekinteni a PowerShell utasításokat is:



```
#
# Windows PowerShell script for AD DS Deployment
#

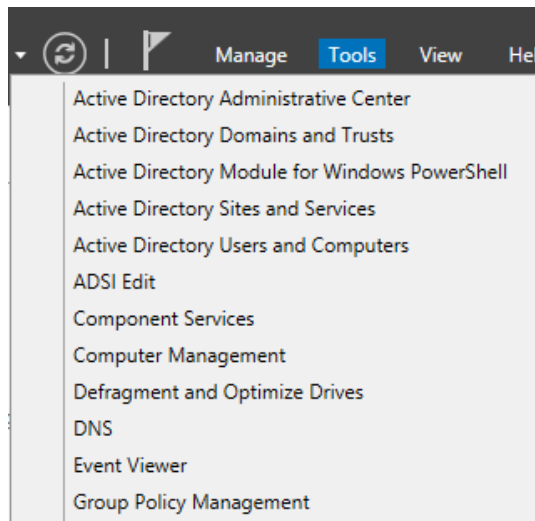
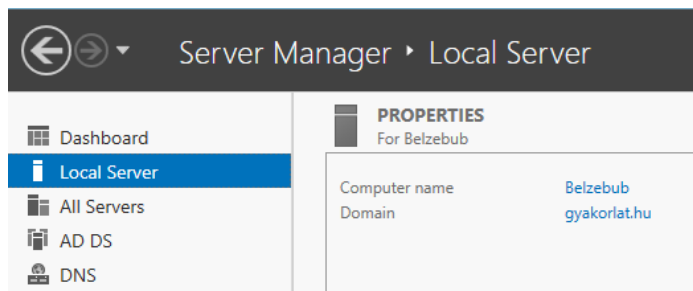
Import-Module ADDSDeployment
Install-ADDSForest `
-CreateDnsDelegation:$false `
-DatabasePath "C:\Windows\NTDS" `
-DomainMode "Win2012" `
-DomainName "gyakorlat.hu" `
-DomainNetbiosName "GYAKORLAT" `
-ForestMode "Win2012" `
-InstallDns:$true `
-LogPath "C:\Windows\NTDS" `
-NoRebootOnCompletion:$false `
-SysvolPath "C:\Windows\SYSVOL" `
-Force:$true
```

A varázsló ellenőrzi az előfeltételek meglétét. Kapunk néhány figyelmeztetést, majd **Install**.



Ha lefutott a telepítés a gép **újraindul** automatikusan.

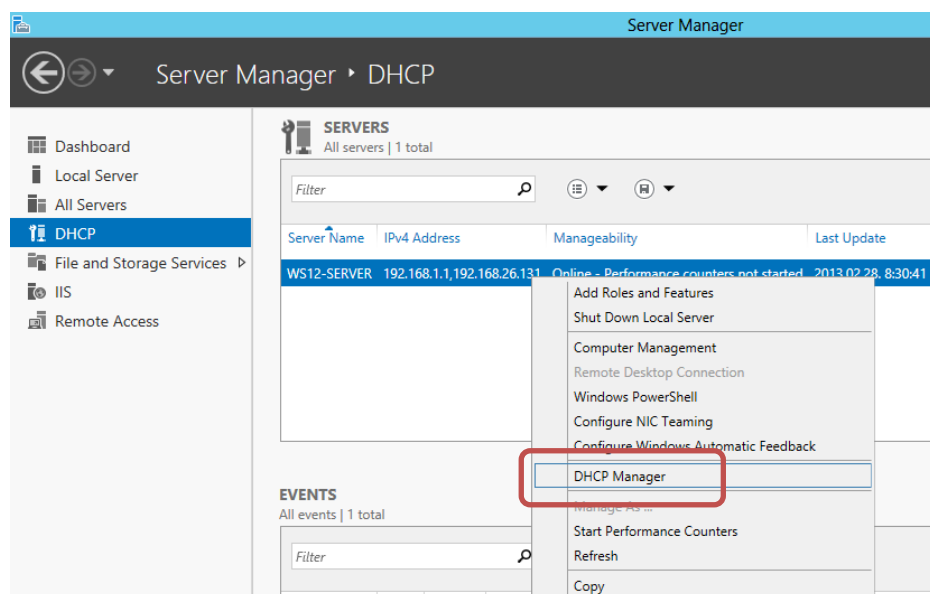
A bejelentkezést követően a Server Managerben megjelenik a tartomány és új eszközöket érhetünk el.



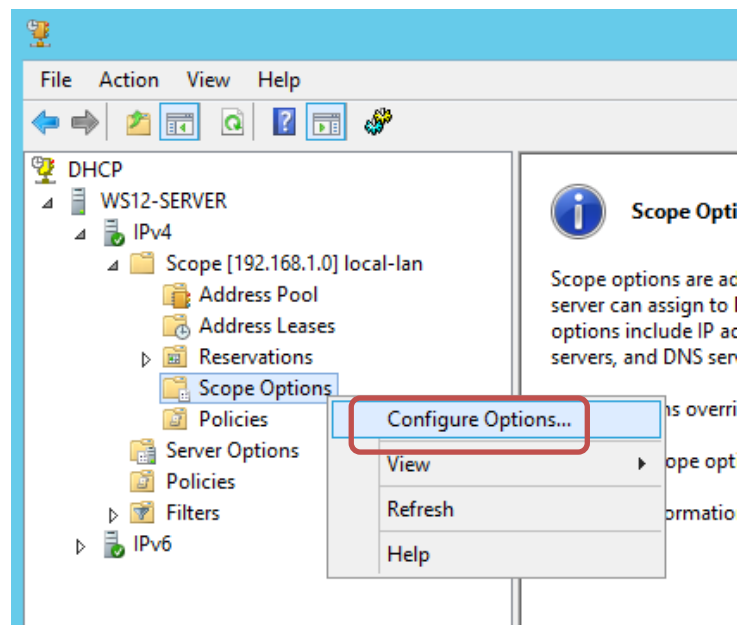
A DHCP előzőleg történő konfigurálásánál csak az IP cím és a Maszk kerül kiosztásra a kliens számára.

Ahhoz, hogy a kliens gépet **be tudjuk fűzni a tartományba**, már nem csak az IP címet és a maszkot kell eljuttatni a kliens gépnek, hanem az „alapértelmezett átjárót” , a „DNS” címet és a „Domain nevet”.

A DHCP szerver konfigurálásához a DHCP Manager szükséges:

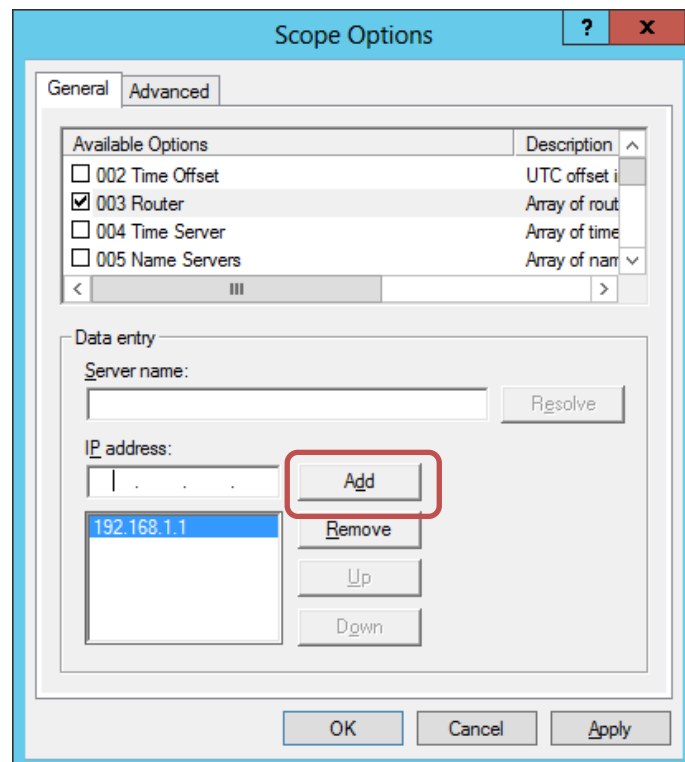


Majd a Hatókör beállítását (Scope Option) kel elvégezni:



A Hatókör beállításánál tudjuk bekonfigurálni, hogy a DHCP milyen egyéb paramétereket küldjön el a Kliens gép számára:

003 Router:



Ezzel a módszerrel állítsuk be a:

006 DNS Server

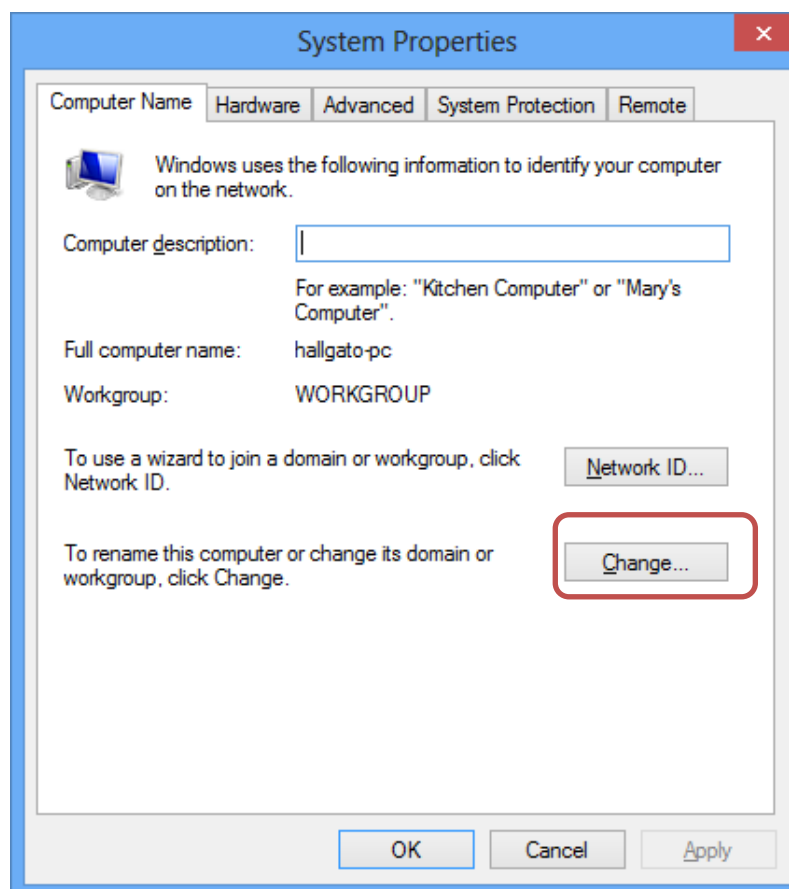
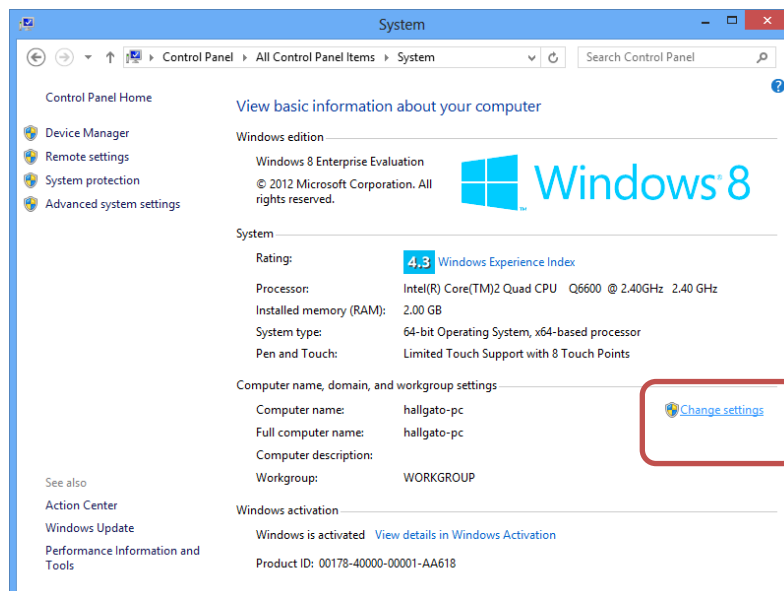
015 DNS Domain Name paramétereket is.

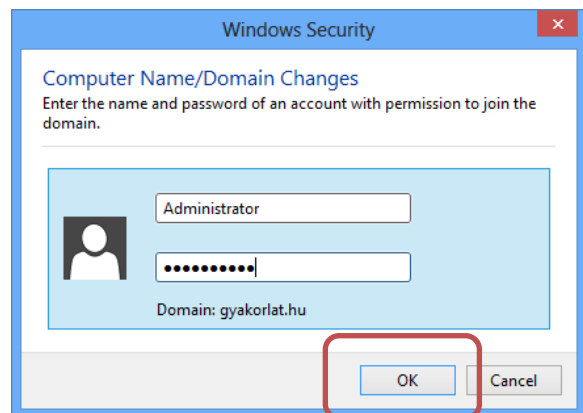
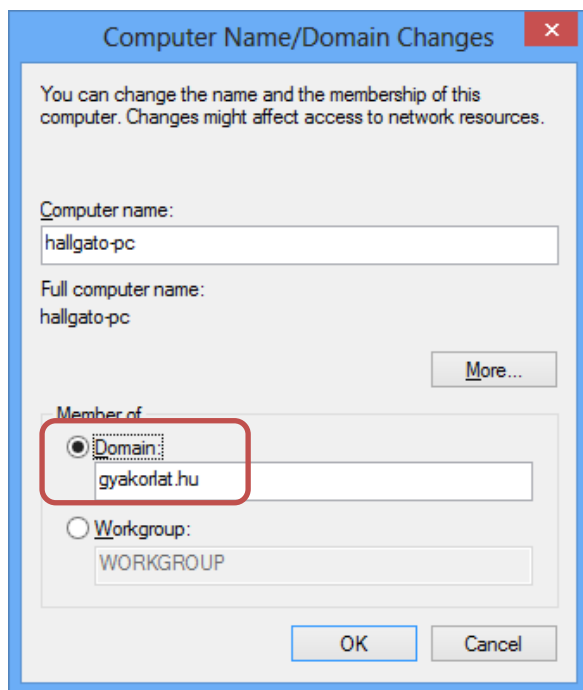
A Win8 kliens gép befűzése tartományba

Ha statikusan kell megadni: IP cím: 192.168.15.2 /24, DNS: 192.168.15.254

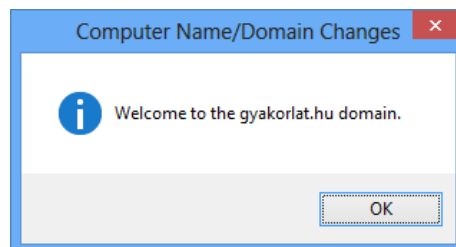
Dinamikusan a DHCP-től megkap minden szükséges paramétert.

Computer jobb kattintás -> Properties -> Change Settings

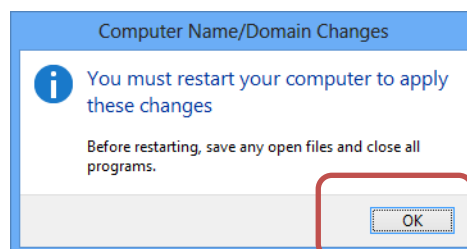




A befűzés után a Tartományunk üdvözlő:



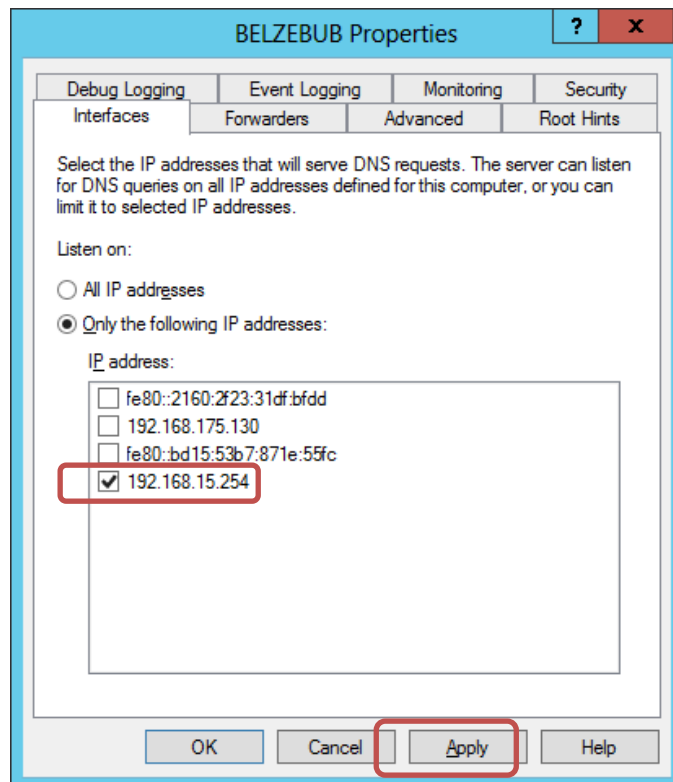
A tartomány csatlakozásához **újra kell indítanunk** a kliens gépet.



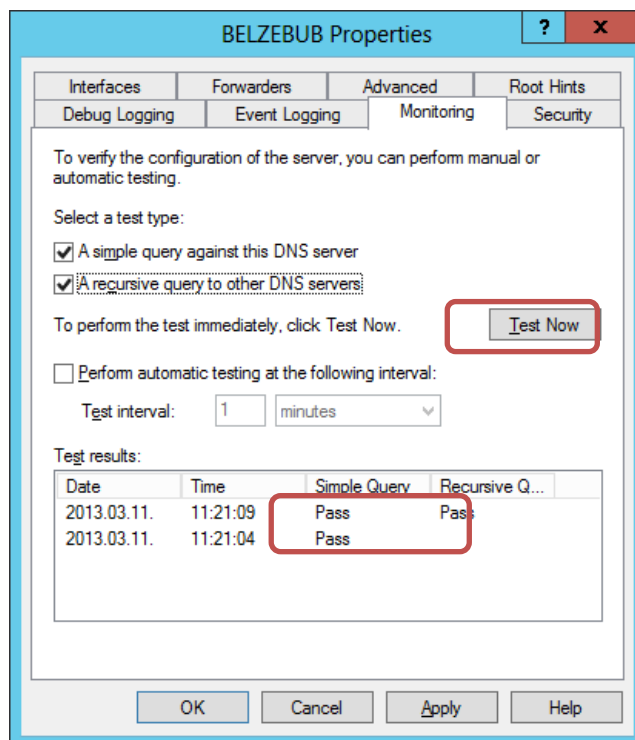
DNS kiszolgáló konfigurálása

A server Manager-ben Tools menü DNS.
Belzebub jobb egérgomb, Properties.

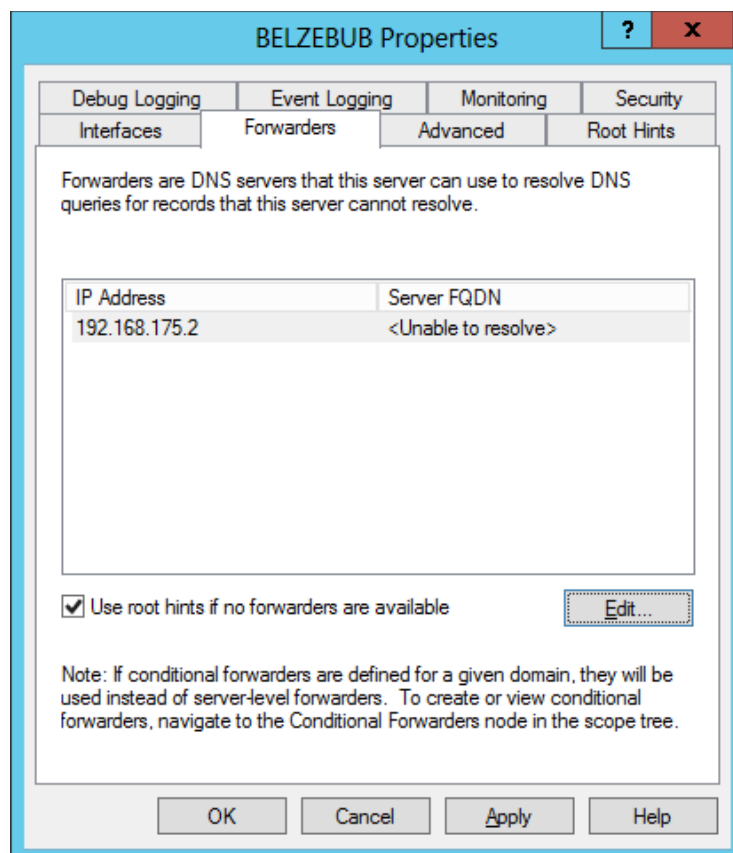
Be kell állítanunk, hogy melyik az a hálózati kártya, amelyik a DNS kéréseket várja. Esetünkben a belső hálózat (LAN1 szegmens) számára nyújtunk névfeloldási szolgáltatást



Tesztelés a Monitoring fülön levő Test Now segítségével.



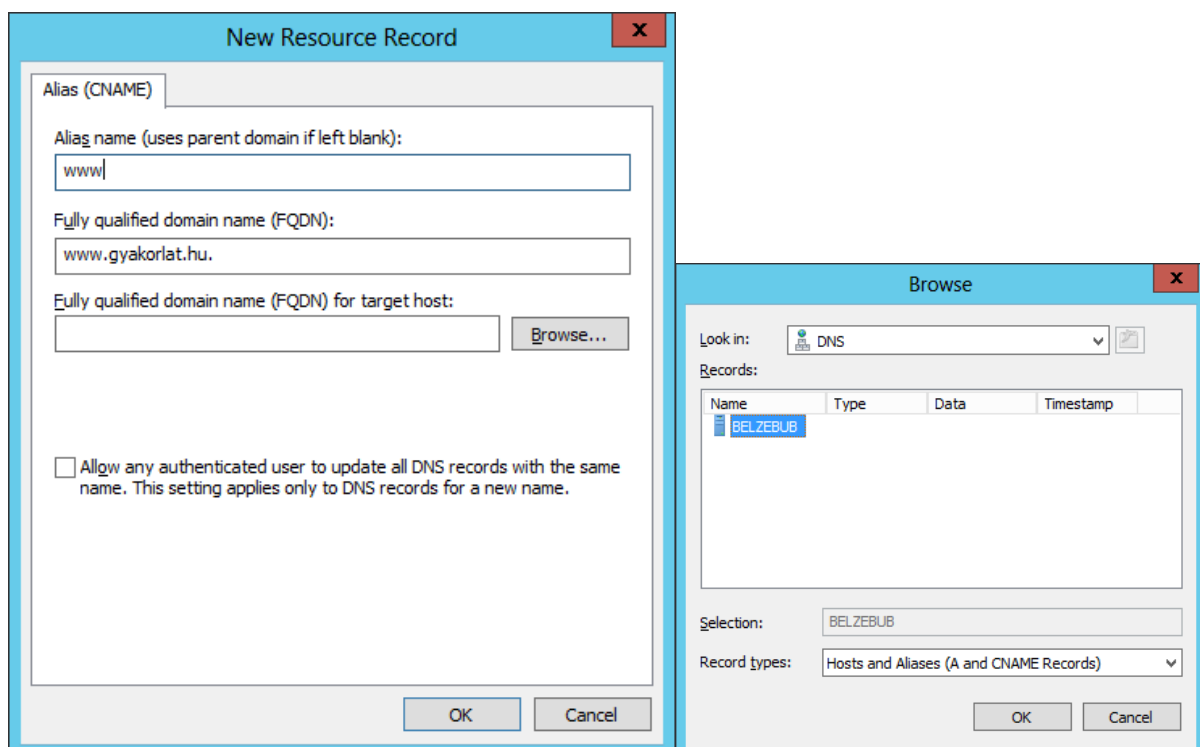
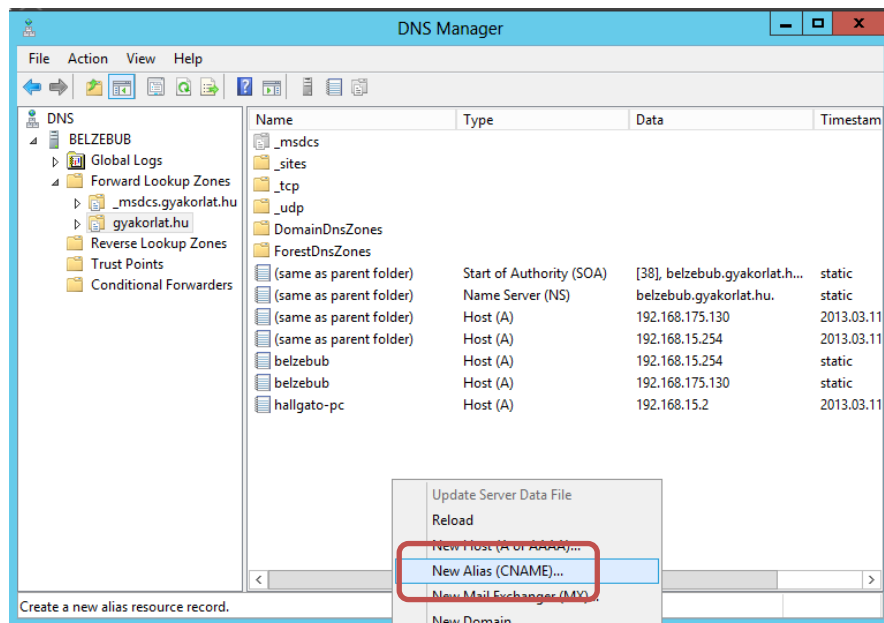
A **Továbbítási fül** adja meg azt a DNS szerver címet, ami a külső nevek feloldására kell, itt a routerünk címe legyen:

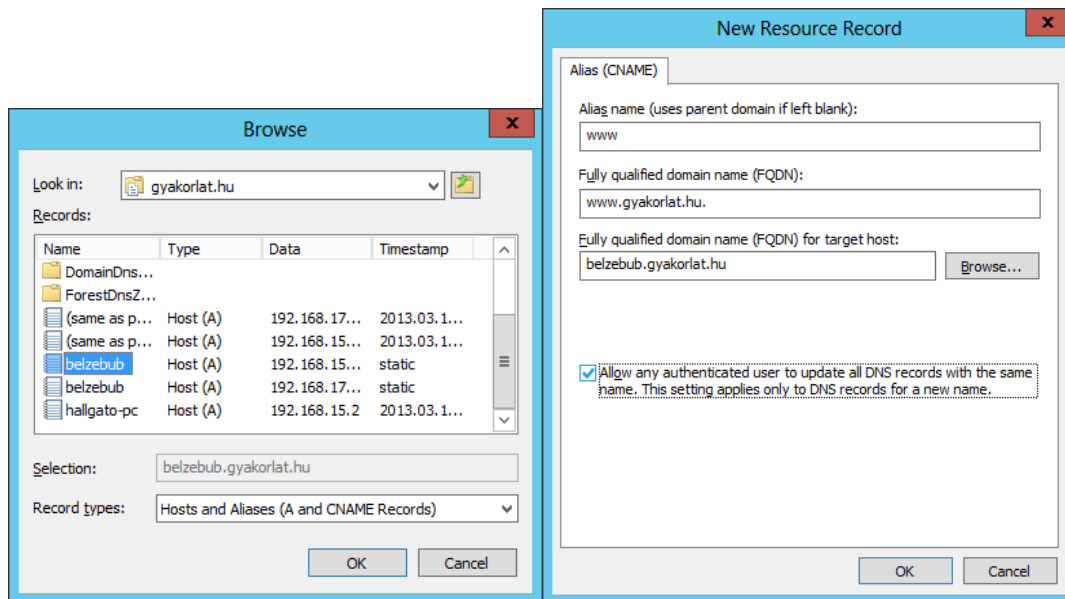


A Címkeresési Zóna (Forward Lookup Zone) konfigurálása

A Tartományban lévő gépek **A rekordjai** bekerültek a zónába.

Regisztráljunk be egy **álnevet (CNAME)** (www.gyakorlat.hu) a szerverünkhöz a DNS adatbázisba, ami a **szerverünk A rekordjára** mutat.





Beállítások kipróbálása a szerveren parancssorban.

```
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>nslookup www
Server: UnKnown
Address: ::1

Name:    belzebub.gyakorlat.hu
Address: 192.168.15.254
Aliases: www.gyakorlat.hu

C:\Users\Administrator>nslookup hallgato-pc
Server: UnKnown
Address: ::1

Name:    hallgato-pc.gyakorlat.hu
Address: 192.168.15.2
```

Beállítások kipróbálása a kliensen parancssorban.

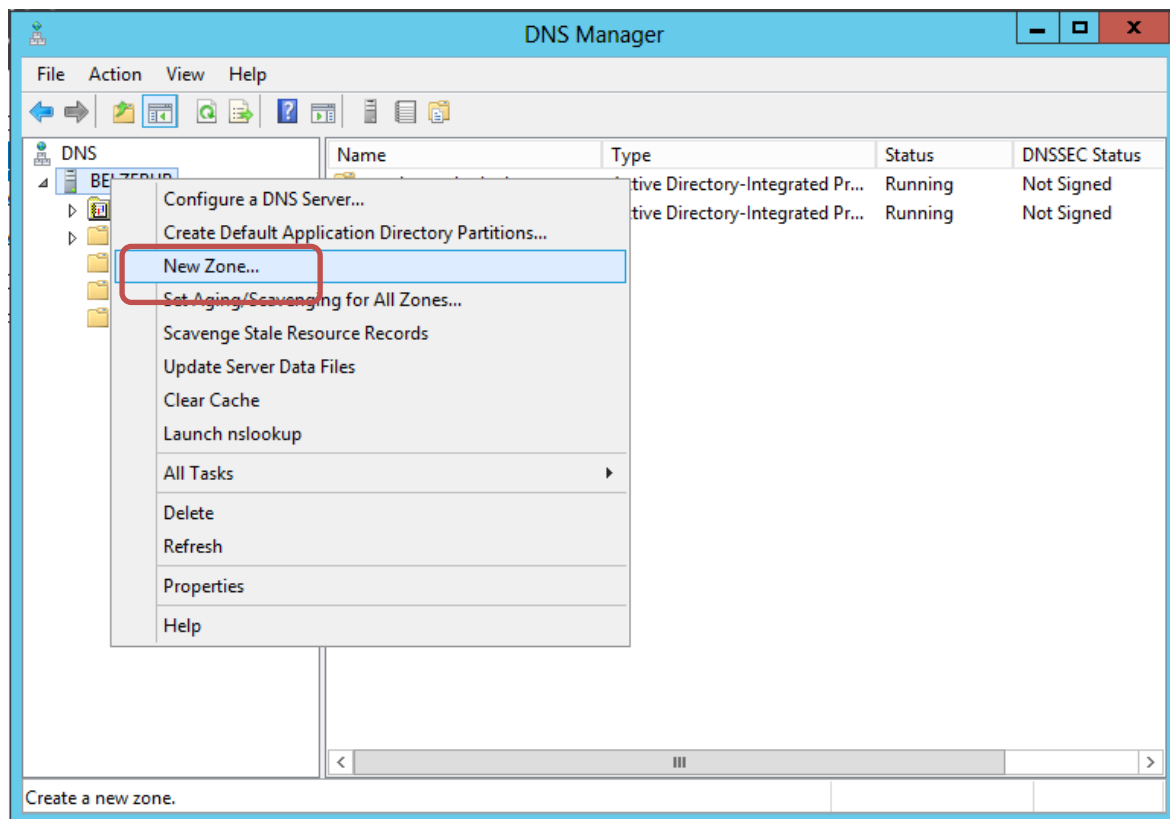
```
C:\Users\hallgato>nslookup belzebub
DNS request timed out.
  timeout was 2 seconds.
Server: UnKnown
Address: 192.168.15.254

Name:    belzebub.gyakorlat.hu
Addresses: 192.168.15.254
           192.168.175.130

C:\Users\hallgato>nslookup ubuntu.hu
DNS request timed out.
  timeout was 2 seconds.
Server: UnKnown
Address: 192.168.15.254

Non-authoritative answer:
Name:    ubuntu.hu
Address: 195.56.172.143
```

Névkeresési zóna (Reverse Lookup Zone) konfigurálása



New Zone Wizard X

Zone Type
The DNS server supports various types of zones and storage.

Select the type of zone you want to create:

☒ **Primary zone**
Creates a copy of a zone that can be updated directly on this server.

☐ **Secondary zone**
Creates a copy of a zone that exists on another server. This option helps balance the processing load of primary servers and provides fault tolerance.

☐ **Stub zone**
Creates a copy of a zone containing only Name Server (NS), Start of Authority (SOA), and possibly glue Host (A) records. A server containing a stub zone is not authoritative for that zone.

☒ **Store the zone in Active Directory (available only if DNS server is a writeable domain controller)**

< Back Next > Cancel

New Zone Wizard X

Active Directory Zone Replication Scope
You can select how you want DNS data replicated throughout your network.

Select how you want zone data replicated:

☐ To all DNS servers running on domain controllers in this forest: gyakorlat.hu

☒ **To all DNS servers running on domain controllers in this domain: gyakorlat.hu**

☐ To all domain controllers in this domain (for Windows 2000 compatibility): gyakorlat.hu

☐ To all domain controllers specified in the scope of this directory partition:

< Back Next > Cancel

New Zone Wizard X

Forward or Reverse Lookup Zone
You can use a zone for forward or reverse lookups.

Select the type of lookup zone you want to create:

☐ Forward lookup zone
A forward lookup zone translates DNS names into IP addresses and provides information about available network services.

☒ **Reverse lookup zone**
A reverse lookup zone translates IP addresses into DNS names.

< Back Next > Cancel

New Zone Wizard X

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

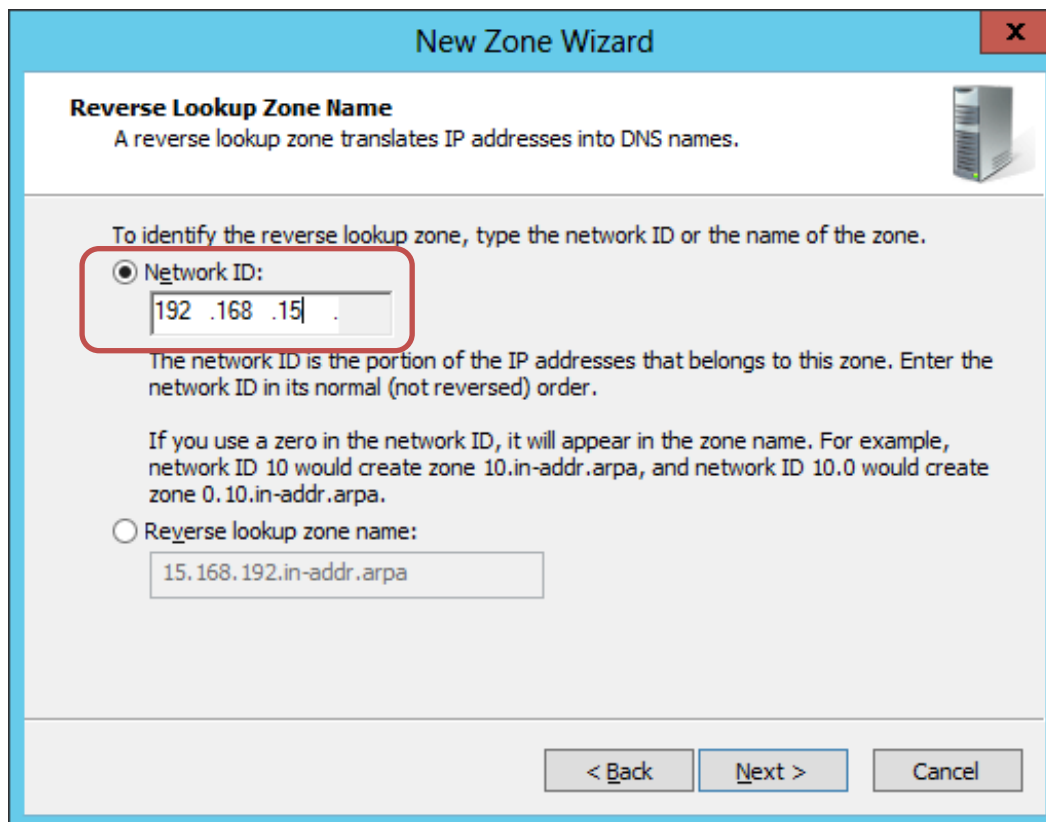
Choose whether you want to create a reverse lookup zone for IPv4 addresses or IPv6 addresses.

☒ **IPv4 Reverse Lookup Zone**

☐ IPv6 Reverse Lookup Zone

< Back Next > Cancel

Megadjuk az alhálózatunk azonosítóját:



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.

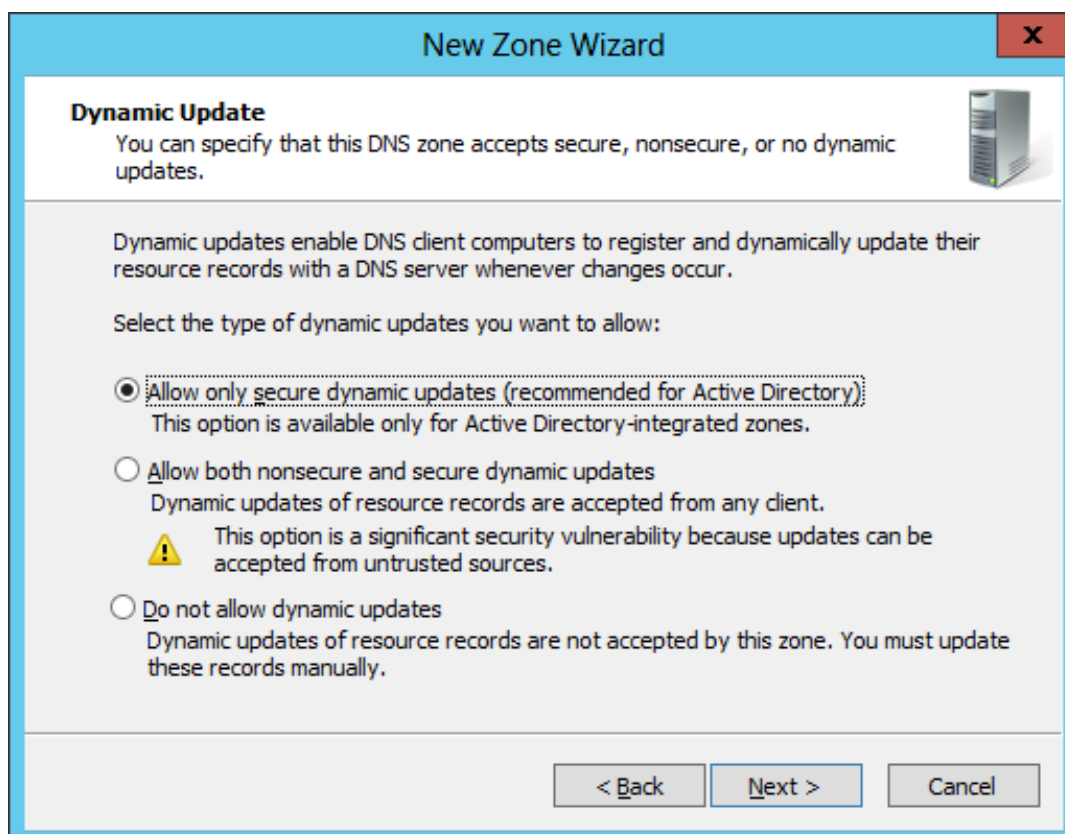
☒ **Network ID:**
192 .168 .15 .

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:**
15.168.192.in-addr.arpa

< Back Next > Cancel




New Zone Wizard

Dynamic Update
You can specify that this DNS zone accepts secure, nonsecure, or no dynamic updates.

Dynamic updates enable DNS client computers to register and dynamically update their resource records with a DNS server whenever changes occur.

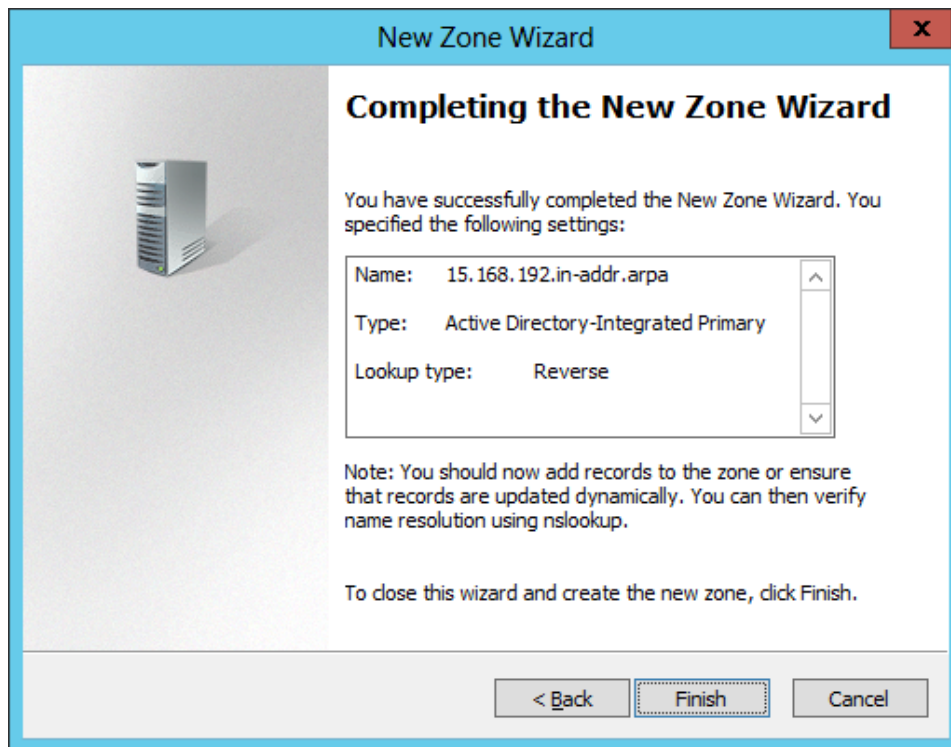
Select the type of dynamic updates you want to allow:

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

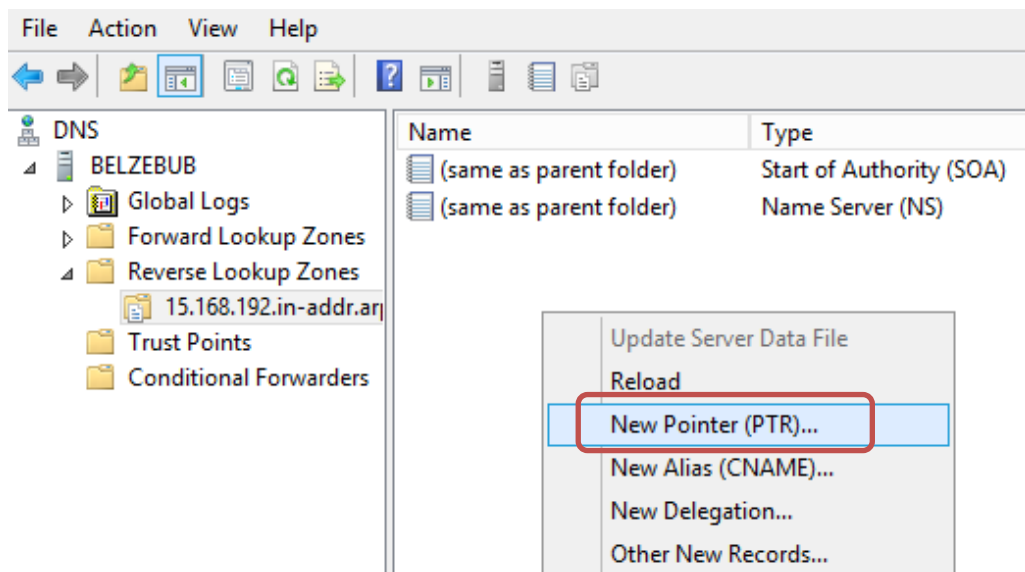
☐ **Allow both nonsecure and secure dynamic updates**
Dynamic updates of resource records are accepted from any client.
 This option is a significant security vulnerability because updates can be accepted from untrusted sources.

☐ **Do not allow dynamic updates**
Dynamic updates of resource records are not accepted by this zone. You must update these records manually.

< Back Next > Cancel



Vegyük fel a szervert és a munkaállomást a zónába (**PTR Rekord** felvétele):



A szerver PTR rekordjának felvétele:

New Resource Record

Pointer (PTR)

Host IP Address:
192.168.15.254

Fully qualified domain name (FQDN):
254.15.168.192.in-addr.arpa

Host name:
| Browse...

☐ Allow any authenticated user to update all DNS records with the same name. This setting applies only to DNS records for a new name.

OK Cancel

New Resource Record

Pointer (PTR)

Host IP Address:
192.168.15.254

Fully qualified domain name (FQDN):
254.15.168.192.in-addr.arpa

Host name:
belzebub.gyakorlat.hu Browse...

☐ Allow any authenticated user to update all DNS records with the same name. This setting applies only to DNS records for a new name.

OK Cancel

A Kliens PTR rekordjának felvétele:

New Resource Record

Pointer (PTR)

Host IP Address:
192.168.15.2

Fully qualified domain name (FQDN):
2.15.168.192.in-addr.arpa

Host name:
hallgato-pc.gyakorlat.hu

Browse...

Beállítások kipróbálása a kliensen parancssorban:

```
C:\Users\hallgato>nslookup 192.168.15.254
Server: belzebub.gyakorlat.hu
Address: 192.168.15.254

Name: belzebub.gyakorlat.hu
Address: 192.168.15.254

C:\Users\hallgato>nslookup 192.168.15.2
Server: belzebub.gyakorlat.hu
Address: 192.168.15.254

Name: hallgato-pc.gyakorlat.hu
Address: 192.168.15.2
```