

**MikroTik router****Windows Server (Core) | Primary Domain Controller | Active Directory | DNS | DHCP****Windows Server (Core) | Backup Domain Controller | DHCP Failover****Windows Server (GUI) | Webserver | FTP Server | Fileserver | Print Server****Windows client****TARTALOMJEGYZÉK**

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**A telepítések nél az operációs rendszerek újabb, próba (trial) verziót is használhatjuk!  
Mindig ellenőrizzük, hogy a hivatalos letöltési oldalakon vannak-e újabb megjelenések!**

**A segédletet a készítő engedélye és beleegyezése nélkül felhasználni és másolni szigorúan tilos!**

## 1. MikroTik router

Telepítsük a MikroTik router-t a már tanult módon!

### 1.1 A MikroTik router konfigurálása

interface/print

ip/dhcp-client/add disabled=no interface=ether1

ip/address/add interface=ether2 address=172.16.0.1/16

ip/dhcp-client/add disabled=no interface=ether3

ip/address/print

ip/firewall/nat/add chain=srcnat action=masquerade out-interface=ether1

ip/firewall/nat/add chain=dstnat action=dst-nat in-interface=ether3 dst-port=50000 to-addresses=172.16.0.254 to-ports=3389 protocol=tcp

ip/firewall/nat/add chain=dstnat action=dst-nat in-interface=ether3 dst-port=55000 to-addresses=172.16.0.253 to-ports=3389 protocol=tcp

ip/firewall/nat/add chain=dstnat action=dst-nat in-interface=ether3 dst-port=60000 to-addresses=172.16.0.252 to-ports=3389 protocol=tcp

ip/firewall/nat/print

## 2. Windows Server (Core) | Primary Domain Controller | Active Directory | DNS | DHCP

Hozzunk létre a VirtualBox-ban egy új virtuális gépet az alábbiak szerint:

**Name:** windows\_server\_core\_pdc\_ad\_dns\_dhcp

**Type:** Windows

**Version:** Windows 2022 (64 bit)

**Base Memory:** 8GB

**Processors:** 2

**A memória mennyisége és a CPU magok száma a gazdagépben lévő fizikai RAM mennyiségének és CPU magok számának függvénye!**

**Disk Size:** 50 GB

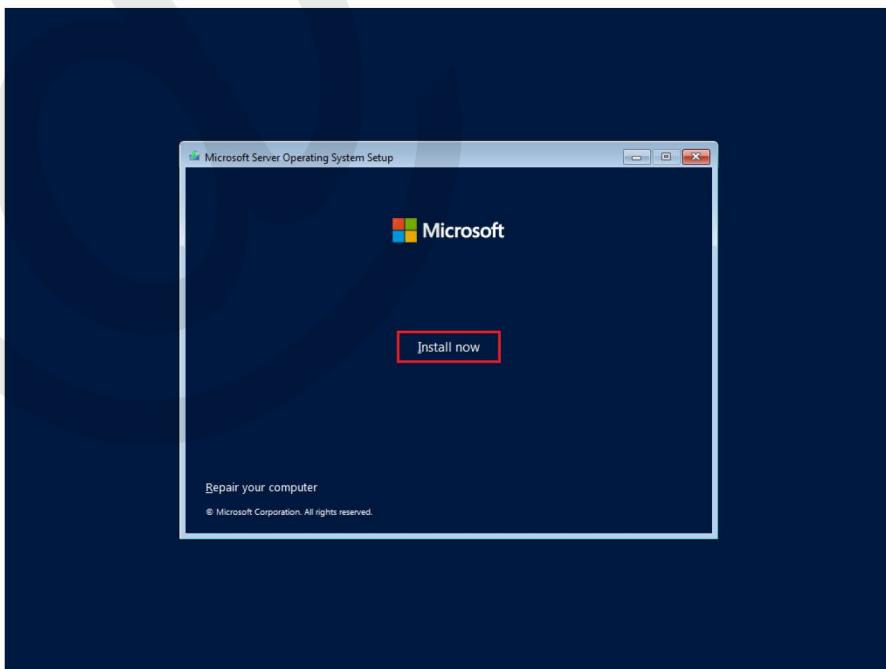
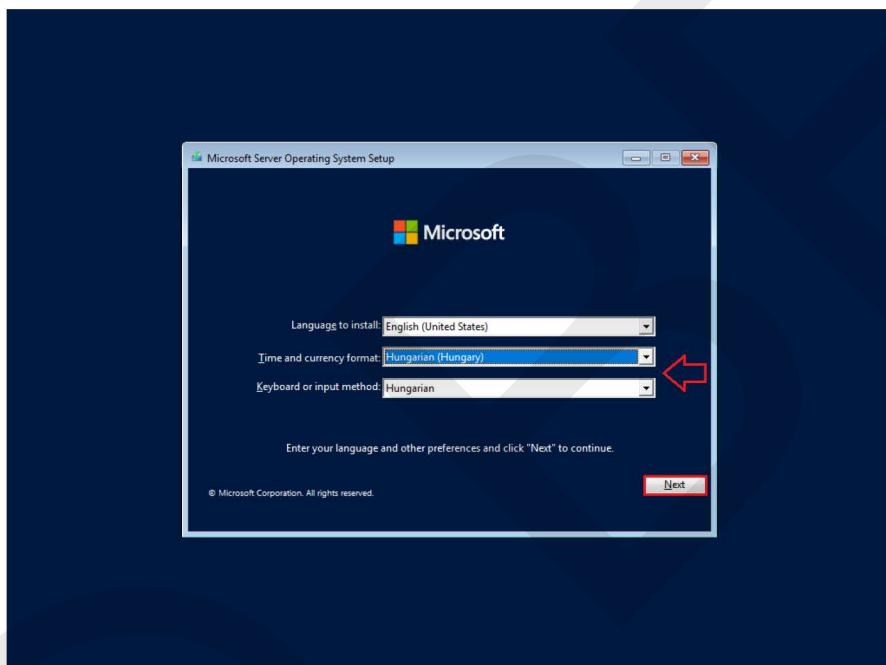
### A virtuális gép konfigurálása:

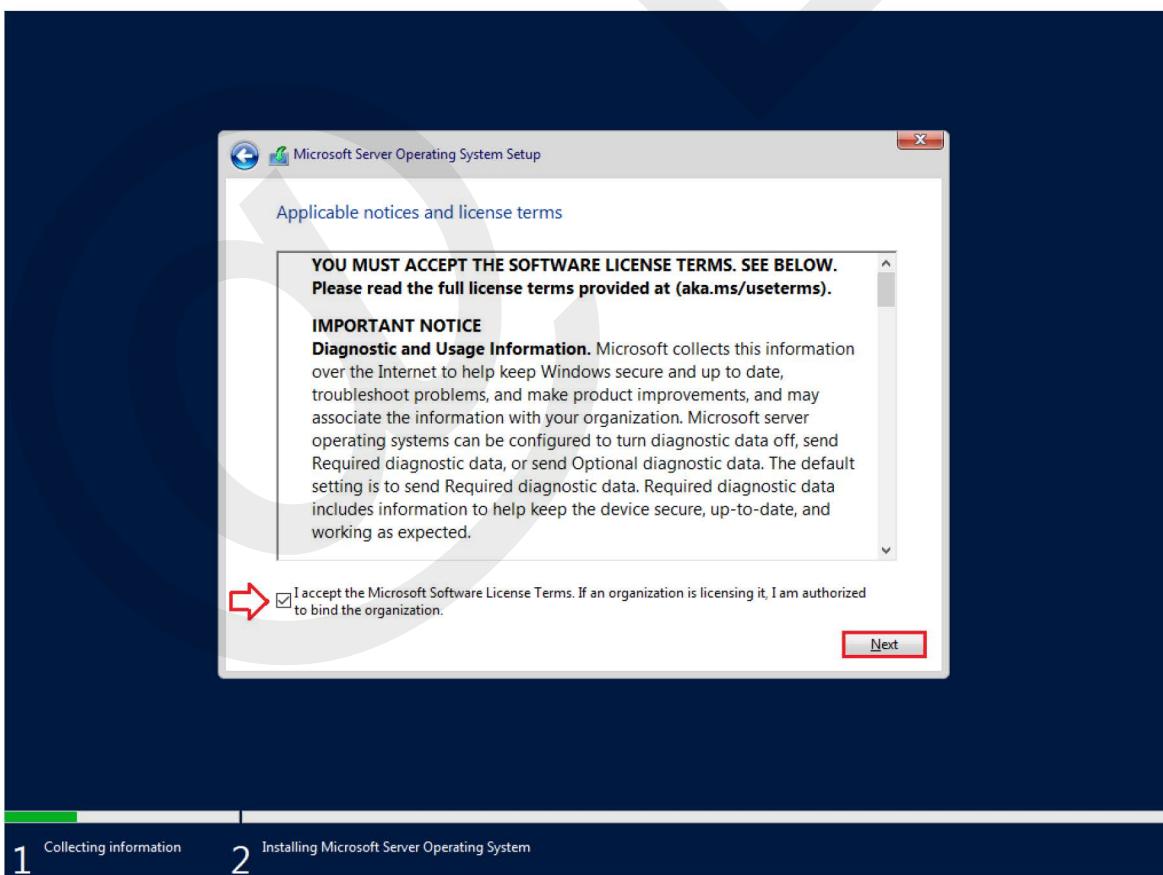
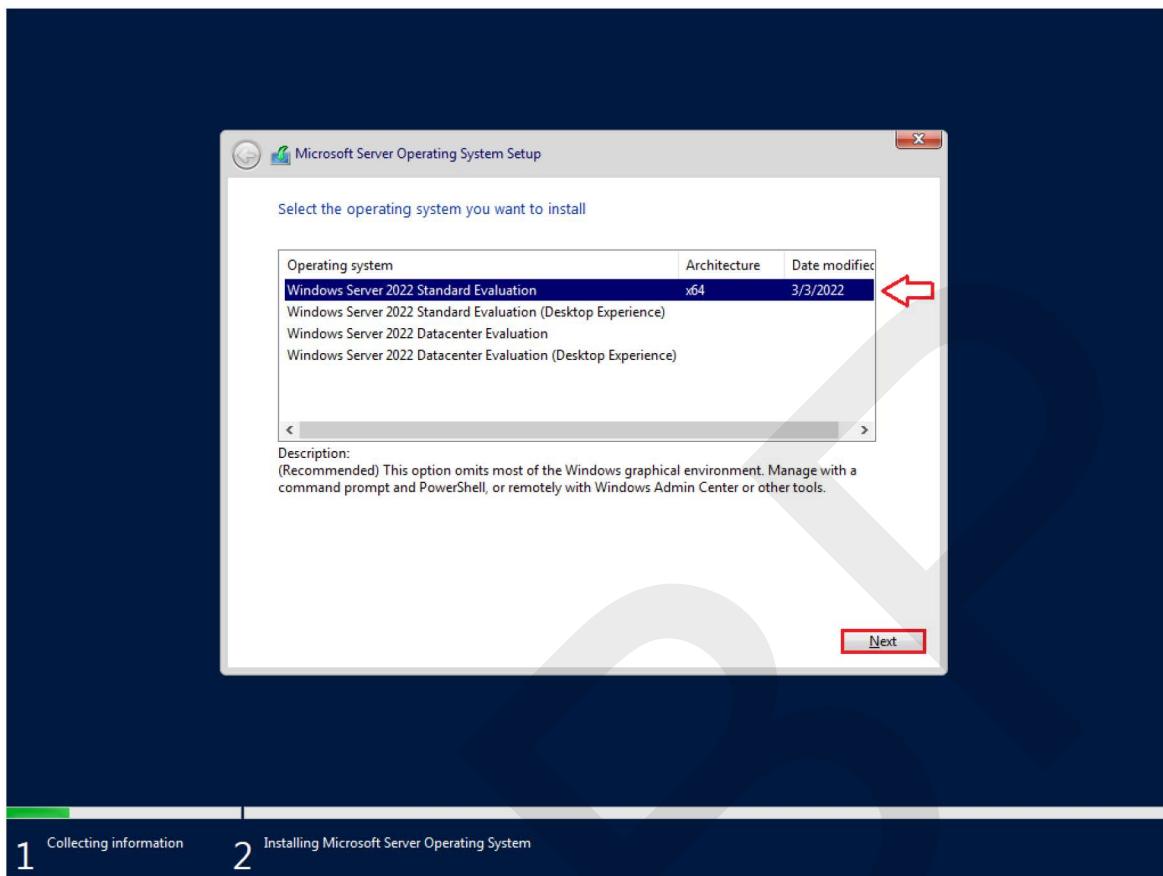
**System/Motherboard → Boot Order:** floppy-t vegyük ki a boot sorrendből

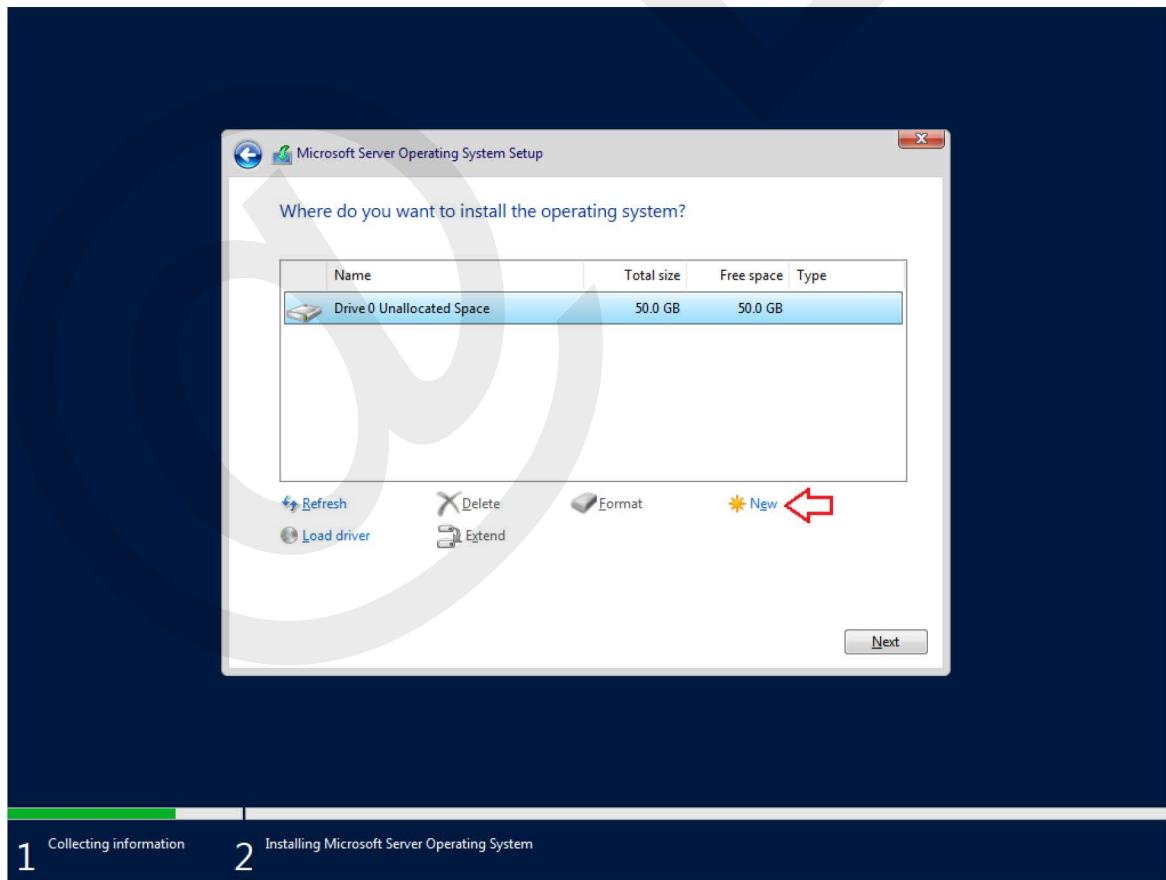
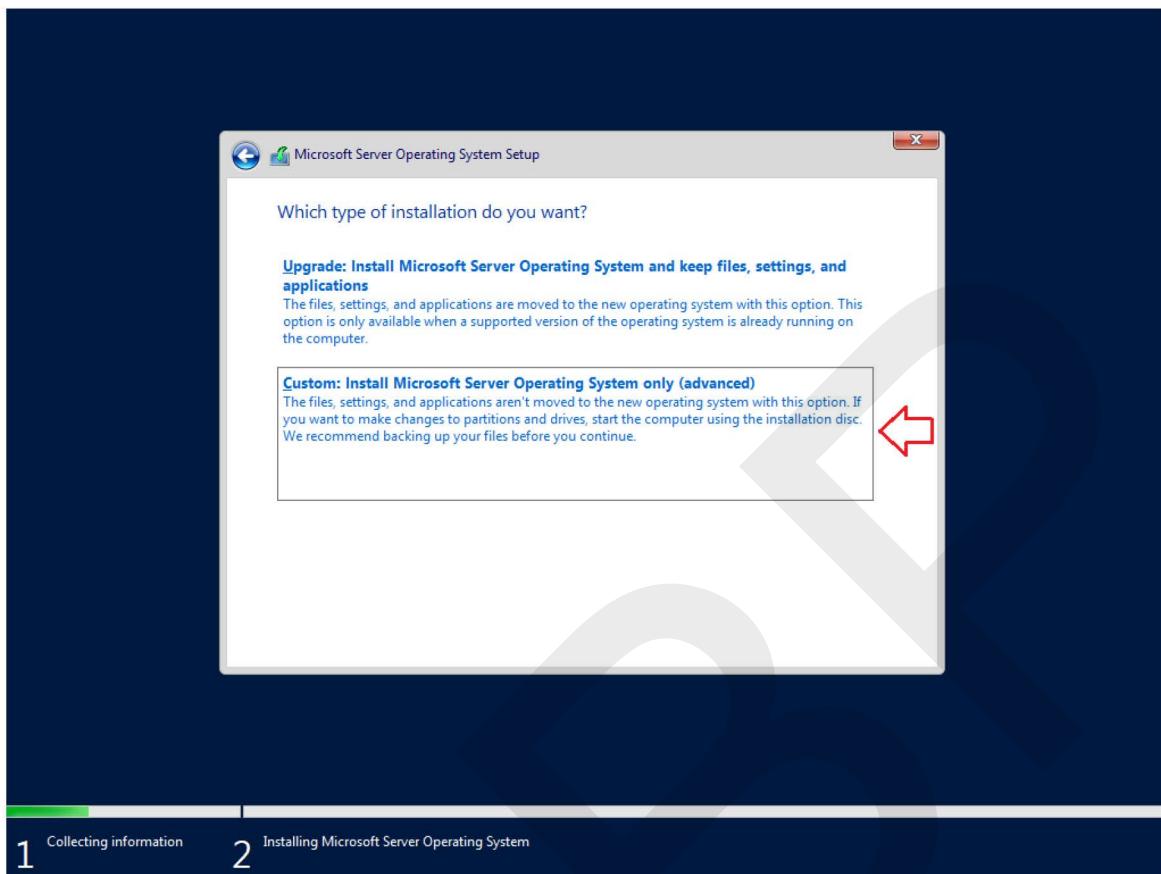
**Storage:** helyezzük be az optikai meghajtóba a Windows Server 2022 ISO-t, a vdi lemezükre kapcsoljuk be a Solid-state Drive-ot (amennyiben SSD-re telepítünk).

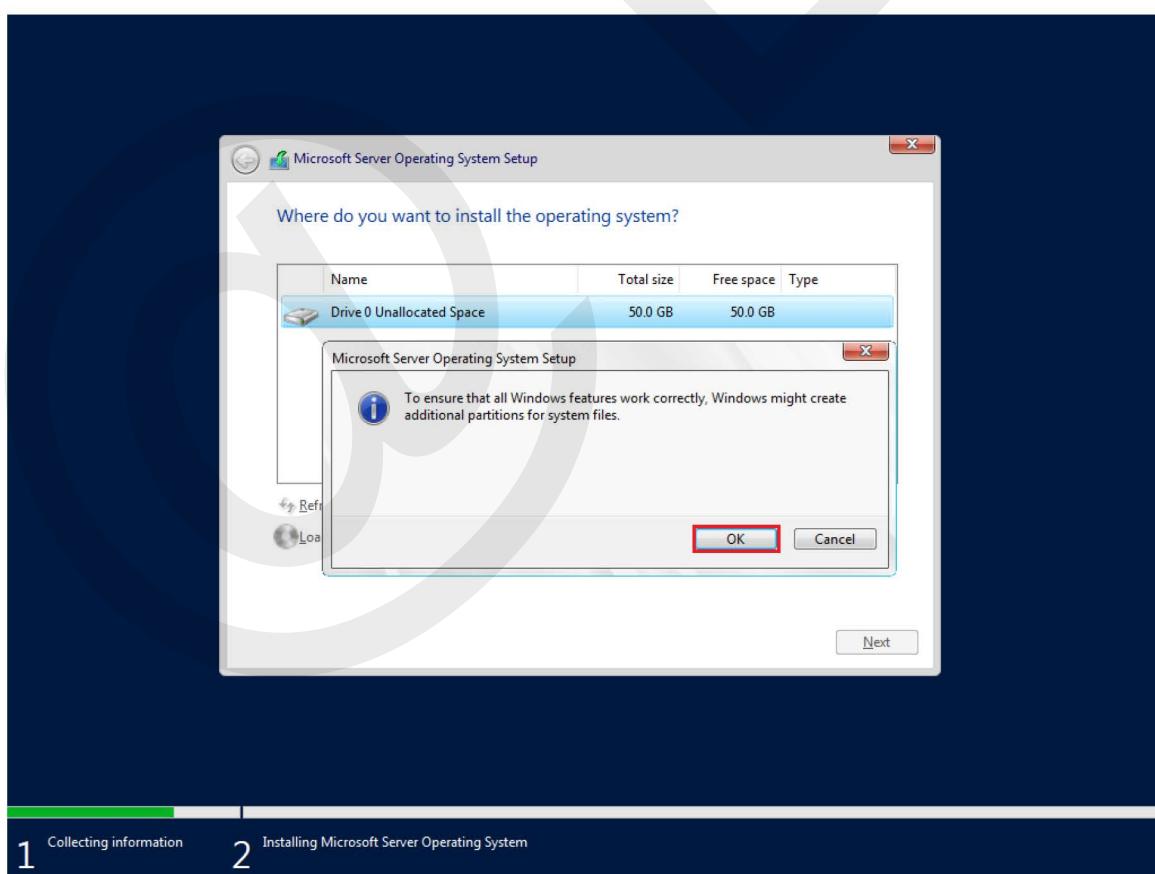
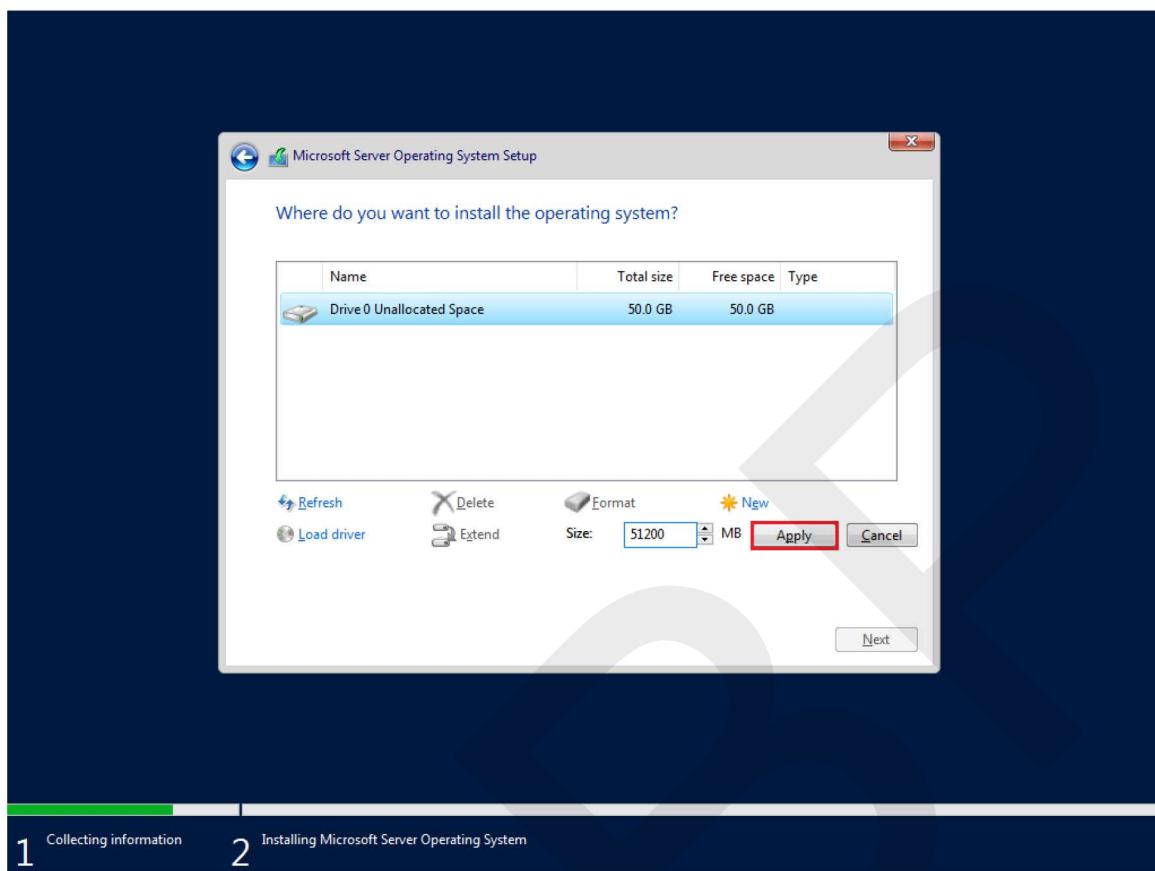
**Network/Adapter 1:** Internal Network kártya

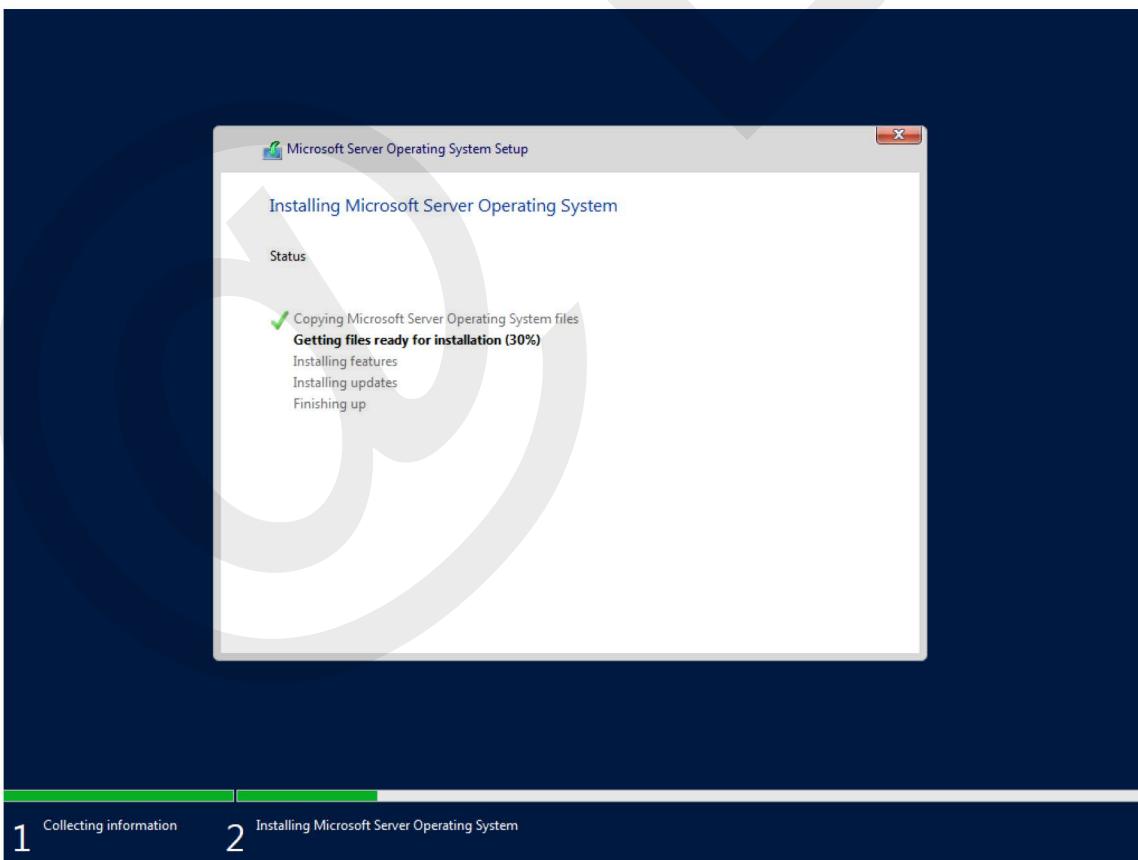
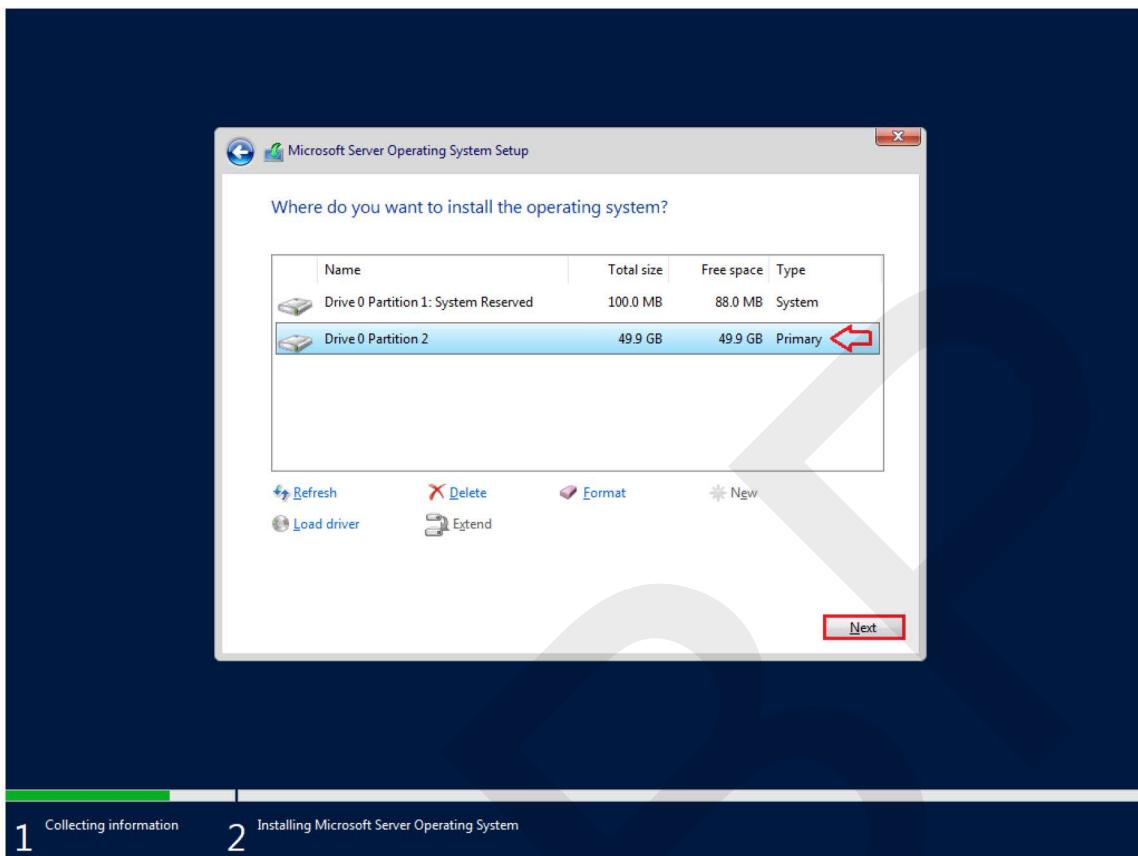
#### 2.1 A virtuális gép indítása és a Windows szerver telepítése

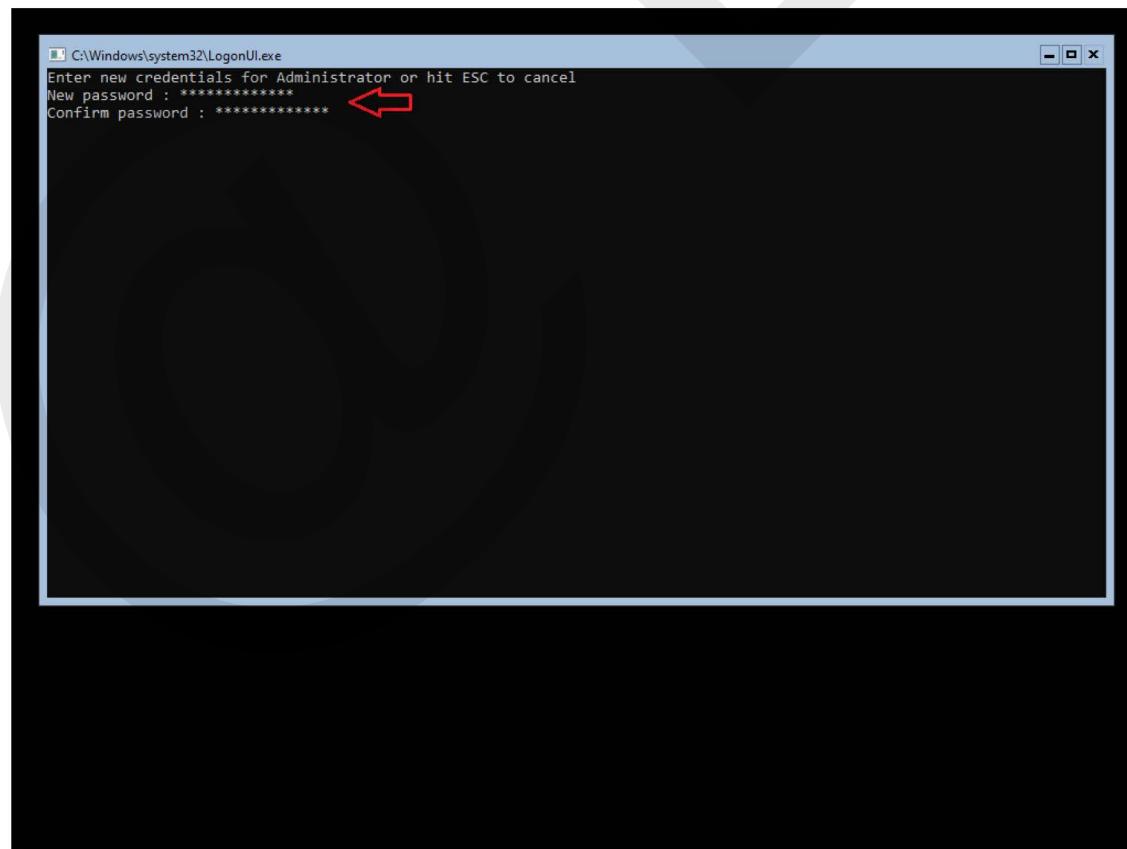
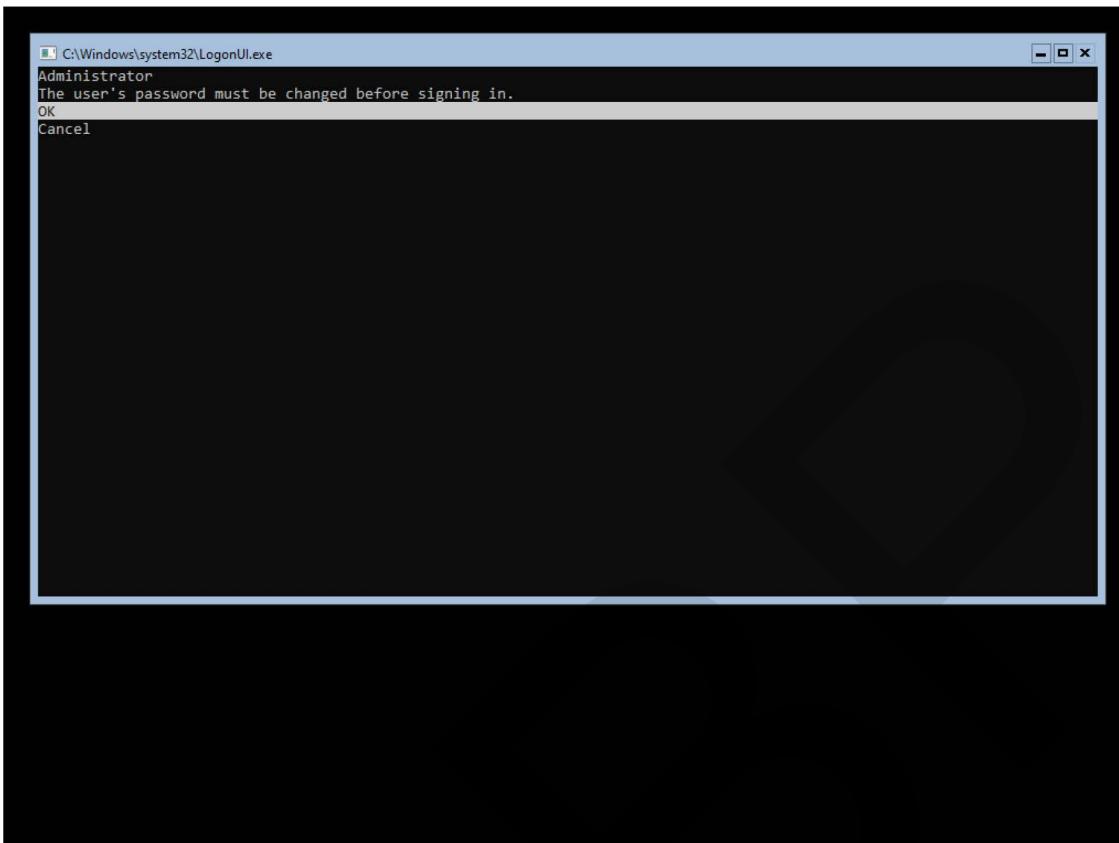




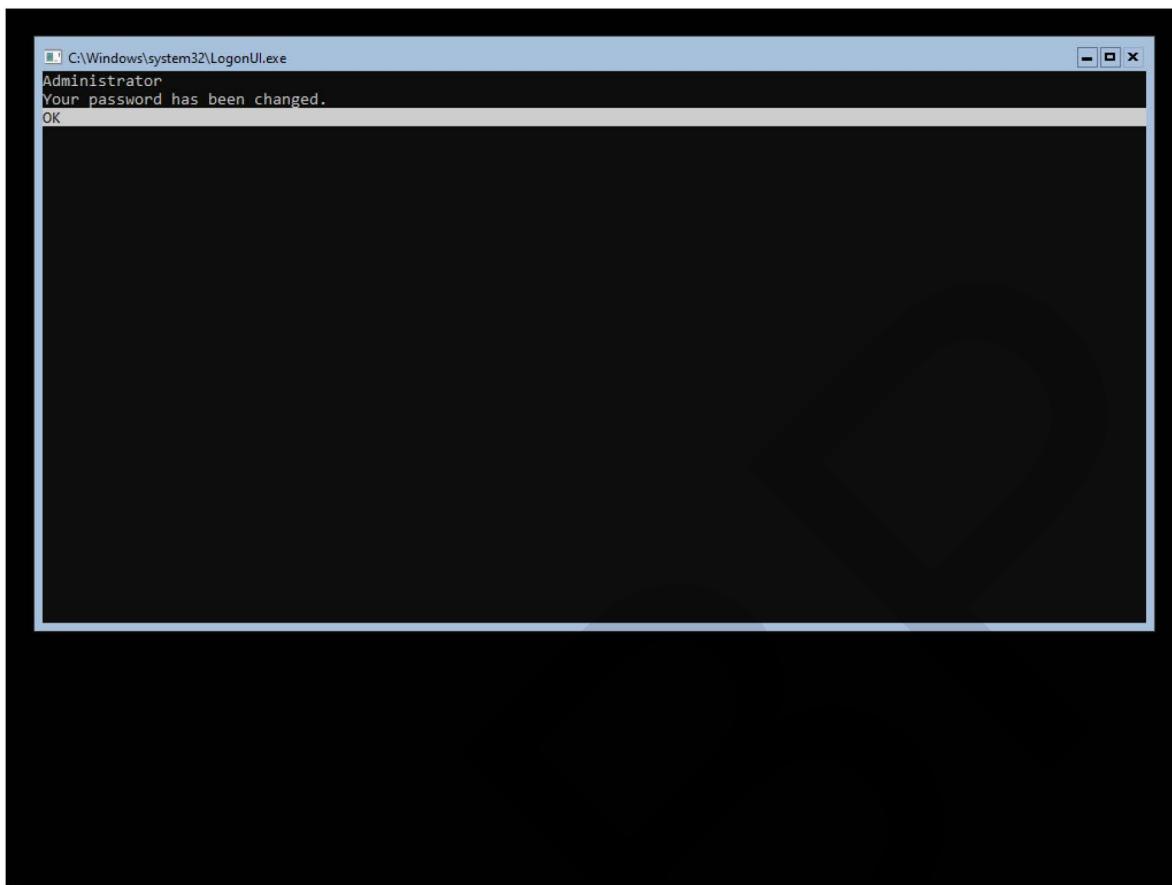




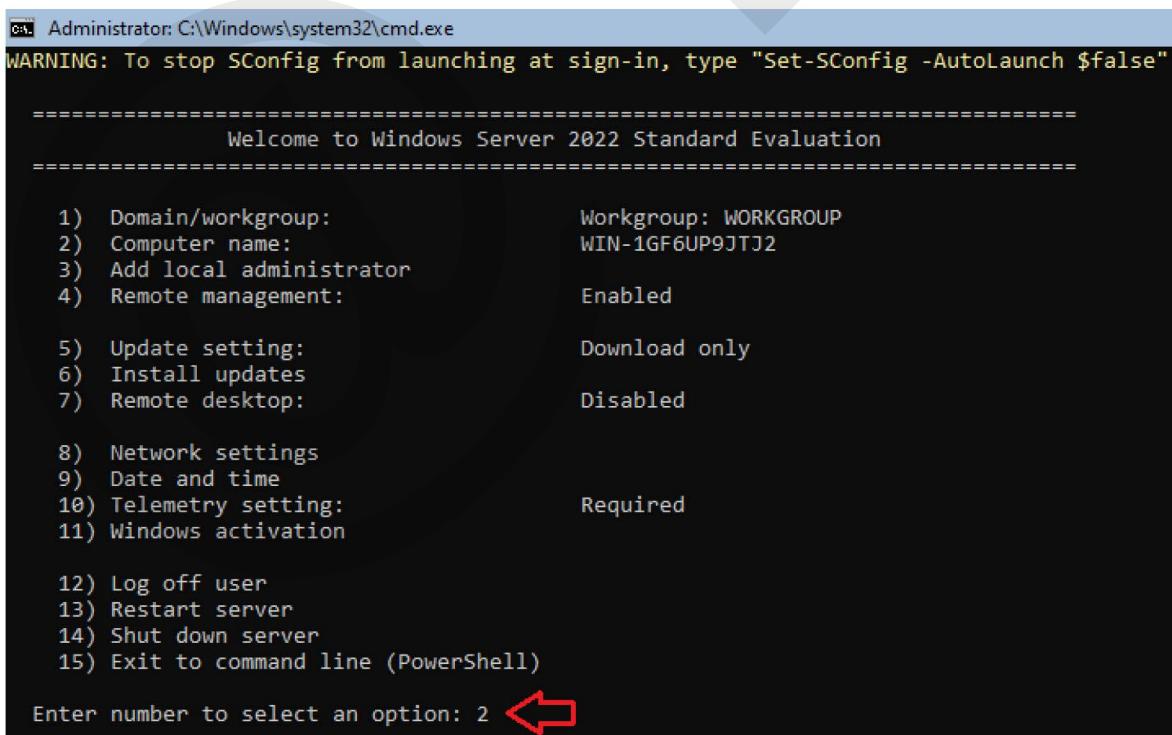




**new password: #Aa123456789@**



## 2.2 A szerver kezdeti konfigurálása SConfig-ban



```
Administrator: C:\Windows\system32\cmd.exe
=====
Computer name
=====
Current computer name: WIN-1GF6UP9JTJ2
Enter new computer name (Blank=Cancel): winserverpdc 
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Computer name
=====
Current computer name: WIN-1GF6UP9JTJ2
Enter new computer name (Blank=Cancel): winserverpdc
Changing computer name...
WARNING: The changes will take effect after you restart the computer WIN-1GF6UP9JTJ2.
Restart now? (Y)es or (N)o: n 
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Welcome to Windows Server 2022 Standard Evaluation
=====
1) Domain/workgroup: Workgroup: WORKGROUP
2) Computer name: WIN-1GF6UP9JTJ2
3) Add local administrator
4) Remote management: Enabled
5) Update setting: Download only
6) Install updates
7) Remote desktop: Disabled
8) Network settings
9) Date and time
10) Telemetry setting: Required
11) Windows activation
12) Log off user
13) Restart server
14) Shut down server
15) Exit to command line (PowerShell)
Enter number to select an option: 7 
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
                                         Remote desktop
=====
Remote desktop status: Disabled
(E)nable or (D)isable Remote Desktop? (Blank=Cancel): e ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
                                         Remote desktop
=====
Remote desktop status: Disabled
(E)nable or (D)isable Remote Desktop? (Blank=Cancel): e
1) Allow only clients running remote desktop with network level authentication (more secure)
2) Allow clients running any version of remote desktop (less secure)
Enter selection (Blank=Cancel): 1 ←
```

```
Enabling remote desktop...
Successfully configured remote desktop.
(Press ENTER to continue): ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
                                         Welcome to Windows Server 2022 Standard Evaluation
=====
1) Domain/workgroup:                               Workgroup: WORKGROUP
2) Computer name:                                WIN-1GF6UP9JTJ2
3) Add local administrator
4) Remote management:                            Enabled
5) Update setting:                             Download only
6) Install updates
7) Remote desktop:                            Enabled (more secure clients)
8) Network settings
9) Date and time
10) Telemetry setting:                         Required
11) Windows activation
12) Log off user
13) Restart server
14) Shut down server
15) Exit to command line (PowerShell)
Enter number to select an option: 8 ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Network settings
=====

Available network adapters:
Index # | IP address      | Description
1       | 169.254.86.128    | Intel(R) PRO/1000 MT Desktop Adapter

Select network adapter index # (Blank=Cancel): 1 ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Network adapter settings
=====

NIC index: 1
Description: Intel(R) PRO/1000 MT Desktop Adapter
IP address: 169.254.86.128,
fe80::1a6:8a29:e554:5680
Subnet mask: 255.255.0.0
DHCP enabled: True

Default gateway:
Preferred DNS server:
Alternate DNS server:

1) Set network adapter address
2) Set DNS servers
3) Clear DNS server settings

Enter selection (Blank=Cancel): 1 ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Network adapter settings
=====

NIC index: 1
Description: Intel(R) PRO/1000 MT Desktop Adapter
IP address: 169.254.86.128,
fe80::1a6:8a29:e554:5680
Subnet mask: 255.255.0.0
DHCP enabled: True

Default gateway:
Preferred DNS server:
Alternate DNS server:

1) Set network adapter address
2) Set DNS servers
3) Clear DNS server settings

Enter selection (Blank=Cancel): 1
Select (D)HCP or (S)tatic IP address (Blank=Cancel): s ←
```

```
Enter static IP address (Blank=Cancel): 172.16.0.254 ←
Enter subnet mask (Blank=255.255.255.0): 255.255.0.0 ←
Enter default gateway (Blank=Cancel): 172.16.0.1
Setting NIC to static IP...
Successfully released DHCP lease.
Successfully enabled static addressing. DHCP for this network adapter is disabled.
Successfully set gateway.
Successfully set network adapter address.
(Press ENTER to continue): ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Welcome to Windows Server 2022 Standard Evaluation
=====

1) Domain/workgroup:           Workgroup: WORKGROUP
2) Computer name:             WIN-1GF6UP9JTJ2
3) Add local administrator
4) Remote management:          Enabled
5) Update setting:            Download only
6) Install updates
7) Remote desktop:             Enabled (more secure clients)

8) Network settings
9) Date and time
10) Telemetry setting:        Required
11) Windows activation

12) Log off user
13) Restart server
14) Shut down server
15) Exit to command line (PowerShell)

Enter number to select an option: 8 ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Network settings
=====

Available network adapters:

Index # | IP address      | Description
1       | 172.16.0.254      | Intel(R) PRO/1000 MT Desktop Adapter

Select network adapter index # (Blank=Cancel): 1 ←
```

```
Administrator: C:\Windows\system32\cmd.exe
=====
Network adapter settings
=====

NIC index: 1
Description: Intel(R) PRO/1000 MT Desktop Adapter
IP address: 172.16.0.254,
fe80::1a6:8a29:e554:5680
Subnet mask: 255.255.0.0
DHCP enabled: False

Default gateway: 172.16.0.1
Preferred DNS server:
Alternate DNS server:

1) Set network adapter address
2) Set DNS servers
3) Clear DNS server settings

Enter selection (Blank=Cancel): 2
```

```
Enter new preferred DNS server (Blank=Cancel): 8.8.8.8
Enter alternate DNS server (Blank=None):
```

```
Successfully assigned DNS server(s).
(Press ENTER to continue):
```

```
12) Log off user
13) Restart server
14) Shut down server
15) Exit to command line (PowerShell)

Enter number to select an option: 15
```

Telepítük a „Guest Additions” kiegészítőt:

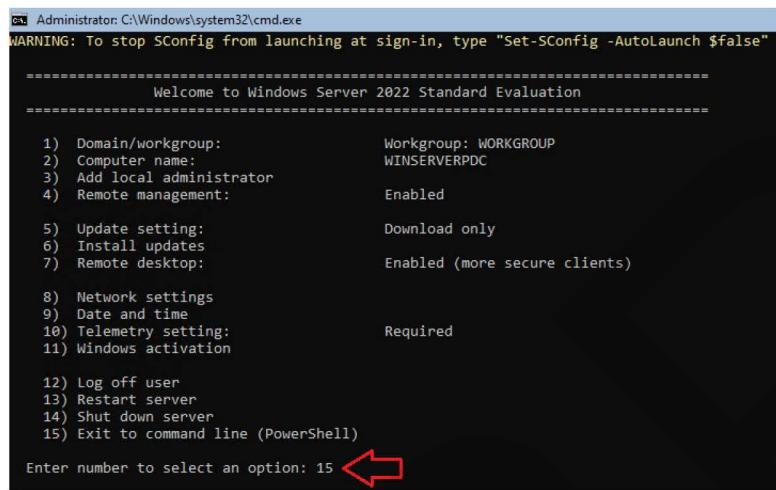


```
Administrator: C:\Windows\system32\cmd.exe
PS C:\Users\Administrator> d:
PS D:\> .\VBoxWindowsAdditions.exe
```

haladjunk végig a telepítési folyamatot, majd „Reboot now”

## 2.3 A szerver konfigurálása PowerShell-ben | AD/Forest telepítése, konfigurálása

Csatlakozzunk távoli asztal kapcsolattal a szerverhez, majd lépjünk ki a PowerShell-be!



```
Administrator: C:\Windows\system32\cmd.exe
WARNING: To stop SConfig from launching at sign-in, type "Set-SConfig -AutoLaunch $false"
=====
Welcome to Windows Server 2022 Standard Evaluation
=====

1) Domain/workgroup: WORKGROUP
2) Computer name: WINSERVERPDC
3) Add local administrator
4) Remote management: Enabled
5) Update setting: Download only
6) Install updates
7) Remote desktop: Enabled (more secure clients)
8) Network settings
9) Date and time
10) Telemetry setting: Required
11) Windows activation
12) Log off user
13) Restart server
14) Shut down server
15) Exit to command line (PowerShell)

Enter number to select an option: 15
```

Konfiguráljuk a már tanult módon a megfelelő időzónát!

**AD/Forest telepítése, konfigurálása:**

Install-WindowsFeature AD-domain-services -IncludeManagementTools -Verbose

Install-ADDSForest -DomainName xycompany.xy -ForestMode Win2012R2 -DomainMode Win2012R2 -DomainNetbiosName XYCOMPANY -InstallDns:\$true

**SafeModeAdministratorPassword: #Aa123456789@**

A telepítést „Y”-nal, vagy Enter-rel folytassuk!

A gép újra fog indulni a telepítés után. Újraindulás után távoli asztal kapcsolaton keresztül lépjünk vissza a PowerShell-be!

## 2.4 A szerver konfigurálása PowerShell-ben | DHCP telepítése, konfigurálása

Install-WindowsFeature DHCP -IncludeManagementTools -Verbose

Add-DhcpServerv4Scope -Name xycompany\_scope -StartRange 172.16.0.100 -EndRange 172.16.0.150 -SubnetMask 255.255.0.0

Set-DhcpServerv4OptionValue -DnsDomain xycompany.xy -DnsServer 172.16.0.254, 172.16.0.253 -Router 172.16.0.1 -Force

Add-DhcpServerInDC -DnsName winserverpdc.xycompany.xy  
Get-DhcpServerv4Scope | Select-Object -Property \*

Restart-Service DHCPServer

### 3. Windows Server (Core) | Backup Domain Controller | Active Directory | DNS | DHCP

**Telepítük a Windows szerver Core verzióját a fent ismertetett módon!**

#### 3.1 A szerver kezdeti konfigurálása SConfig-ban

**A számítógép neve: `winserverbdc`**

**Kapcsoljuk be a távoli asztal kapcsolatot (more secure)!**

**IP cím paraméterek:**

IP address: `172.16.0.253`

Subnet mask: `255.255.0.0`

Gateway: `172.16.0.1`

Preferred DNS server: `172.16.0.254`

**Telepítük a „Guest Additions” kiegészítőt!**

Indítsuk újra a virtuális gépet!

#### 3.2 A szerver konfigurálása PowerShell-ben | Backup Domain Controller konfigurálása

Csatlakozzunk távoli asztal kapcsolattal a szerverhez!

**Lépjünk ki a PowerShell-be!**

**Konfiguráljuk a már tanult módon a megfelelő időzónát!**

**Backup Domain Controller konfigurálása:**

```
Install-WindowsFeature -Name AD-Domain-Services -IncludeManagementTools -Verbose
```

```
Install-ADDSDomainController -InstallDns -Credential (Get-Credential  
xycompany\Administrator) -DomainName xycompany.xy -SafeModeAdministratorPassword  
(ConvertTo-SecureString -AsPlainText "#Aa123456789@" -Force)
```

**Jelszó: `#Aa123456789@`**

A telepítést „Y”-nal, vagy Enter-rel folytassuk!

A virtuális gép újra fog indulni!

### 3.3 A szerver konfigurálása PowerShell-ben | DHCP/DHCP Failover konfigurálása

Csatlakozzunk újra távoli asztal kapcsolattal a szerverhez és indítsuk el a PowerShell-t!

Install-WindowsFeature DHCP -IncludeManagementTools -Verbose

Set-DhcpServerv4OptionValue -DnsDomain xycompany.xy -DnsServer 172.16.0.254, 172.16.0.253 -Router 172.16.0.1

Add-DhcpServerInDC -DnsName winserverbdc.xycompany.xy

#### DHCP Failover telepítése:

Add-DhcpServerv4Failover -ComputerName "winserverpdc.xycompany.xy" -PartnerServer "winserverbdc.xycompany.xy" -Name "winserverpdc-winserverbdc-hot\_standby" -ServerRole Active -ReservePercent 10 -MaxClientLeadTime 1:00:00 -StateSwitchInterval 00:45:00 -ScopeId 172.16.0.0 -SharedSecret "#Aa123456789@"

A telepítést „Y”-nal, vagy Enter-rel folytassuk!

Set-DnsServerForwarder -IPAddress 8.8.8.8

Get-DhcpServerv4Scope | Select-Object -Property \*

Restart-Service DHCPServer

#### Indítsuk újra minden szervert (először a bdc-t, utána a pdc-t):

shutdown -r

## 4. Windows kliens

Telepítsük és konfiguráljuk a Windows klienst a már tanult módon!

Telepítsük a „Guest Additions” kiegészítőt!

A virtuális gép újraindulása után lépjünk vissza a **winadmin** felhasználóval!

### 4.1 A Windows kliens tartományba léptetése

Adjunk nevet a kliens gépnek, és **léptessük tartományba**, a már tanult módon!

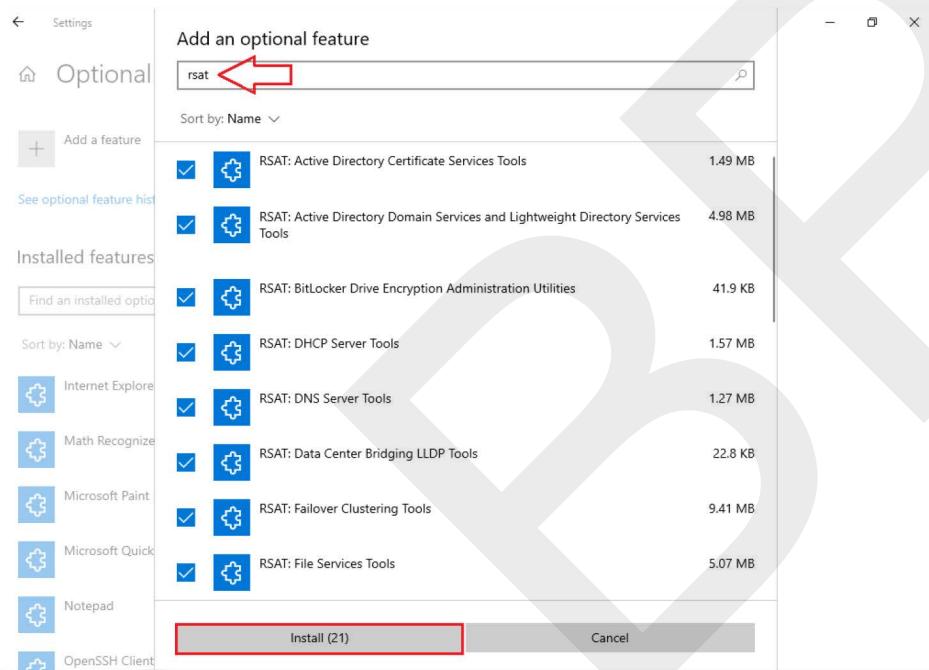
**Computer description:** **winclient**

**Computer name:** **winclient**

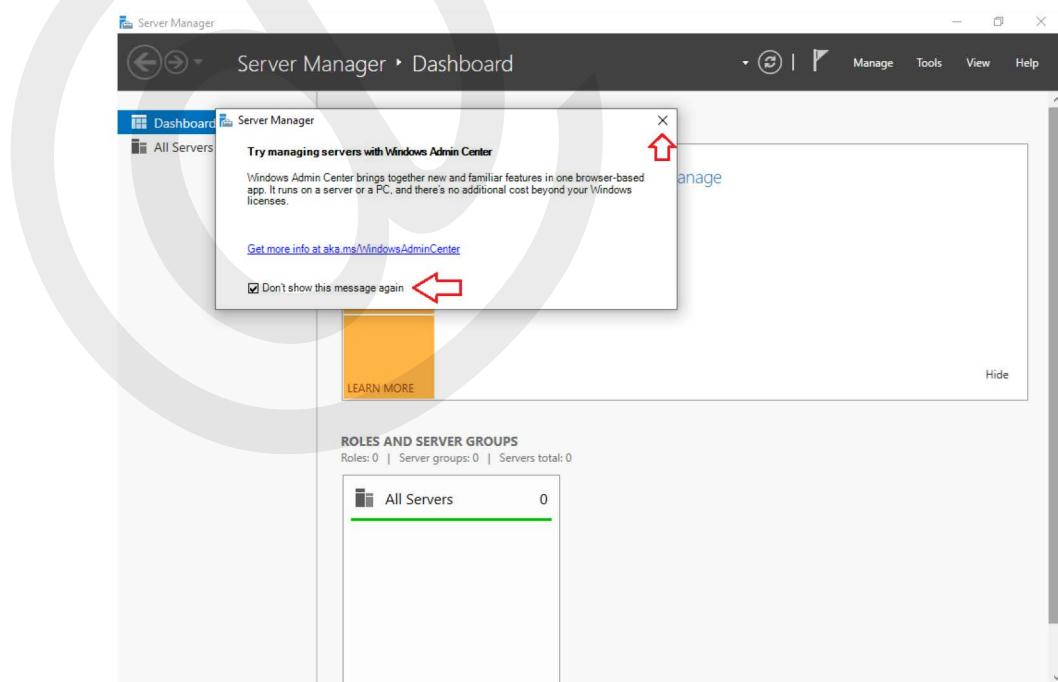
## 4.2 Remote Server Administration Tools (RSAT) telepítése és használata

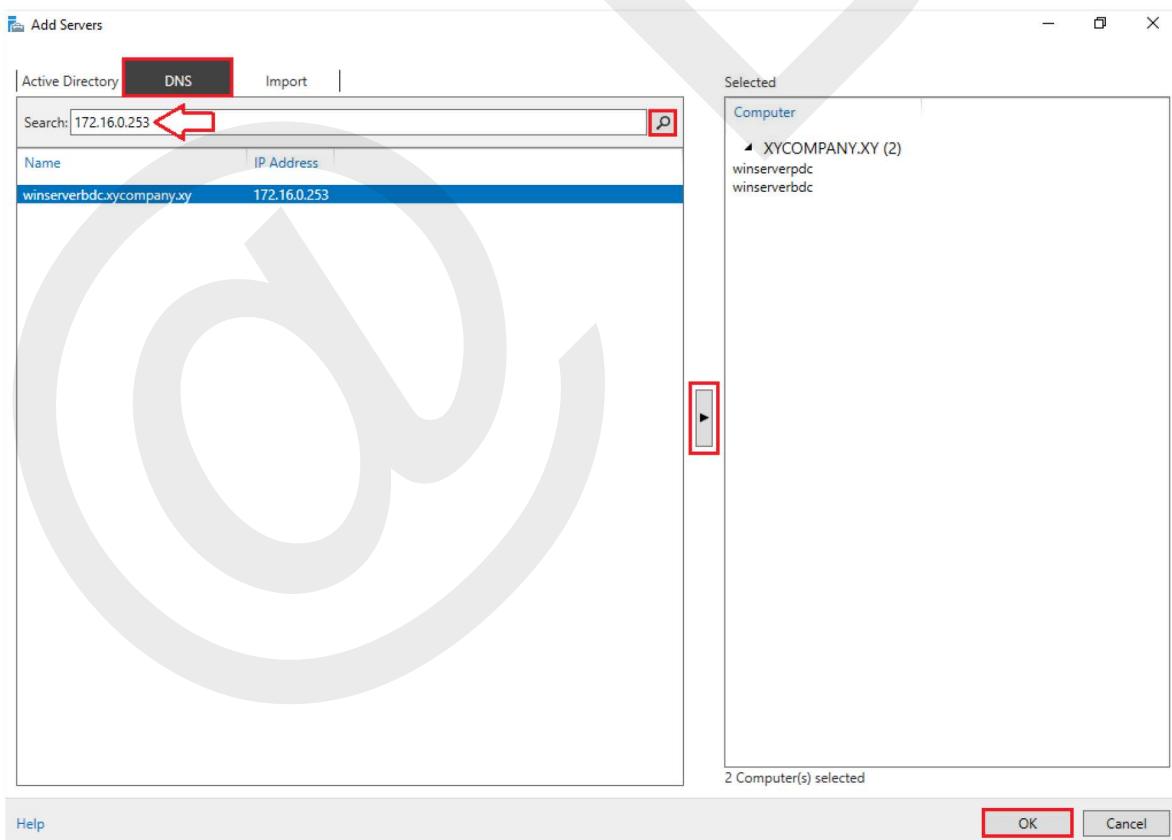
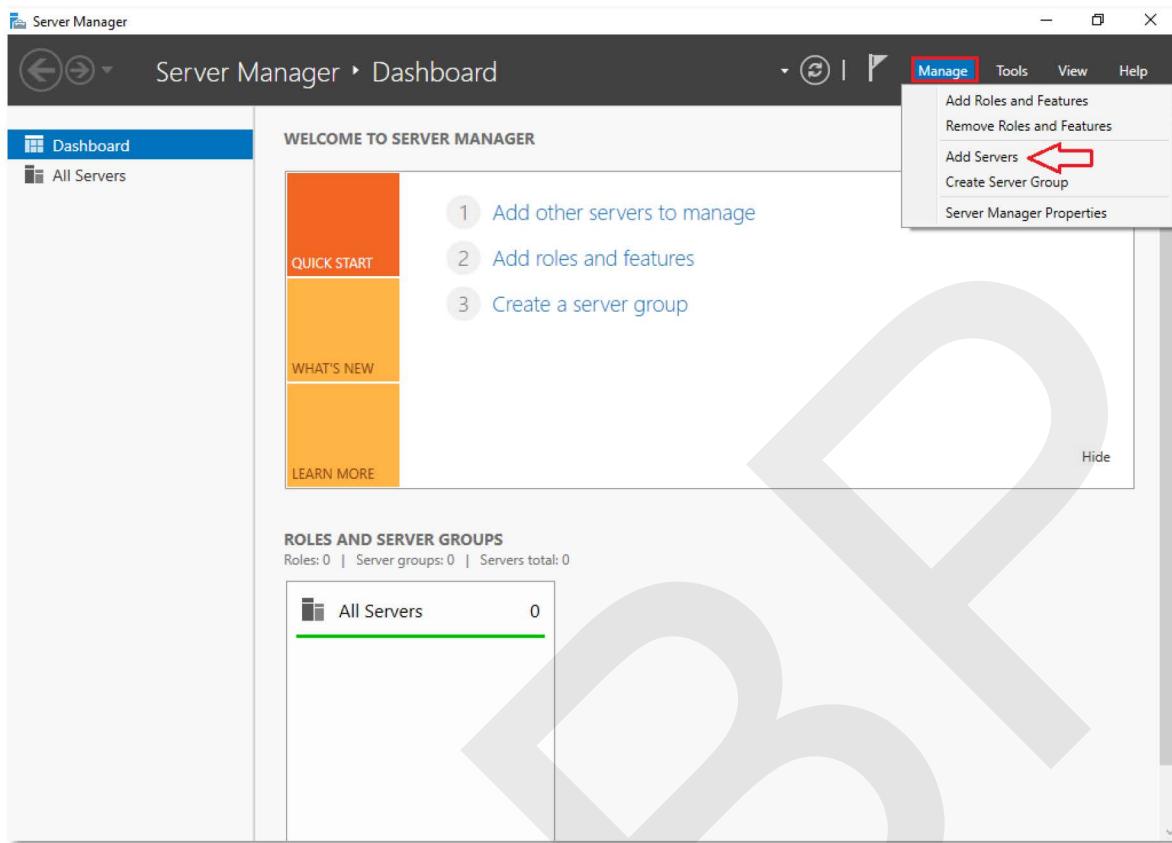
A kliens gép tartományba léptetése után az újraindulást követően **tartományi adminisztrátorként** lépjünk vissza!

Start menü → jobb klick → Apps and Features → Optional features → Add a feature → a keresőbe: rsat → jelöljük ki az összes összetevőt → install



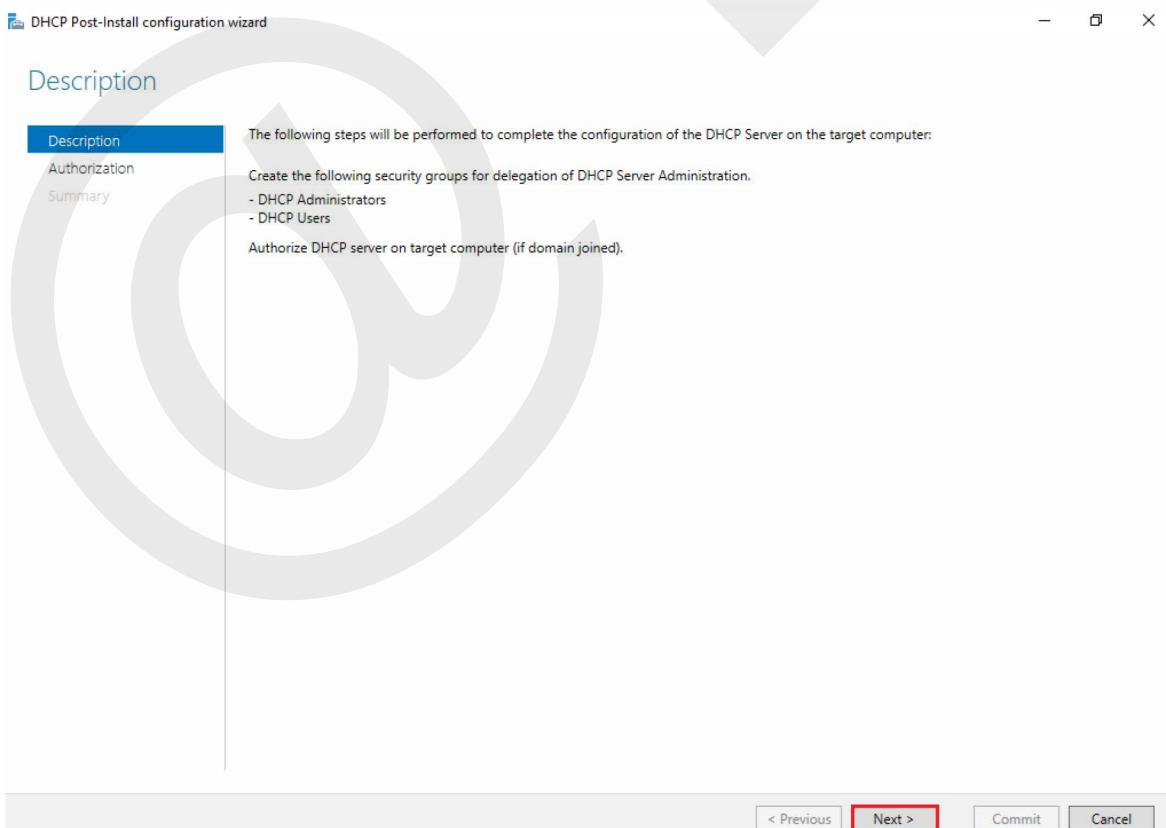
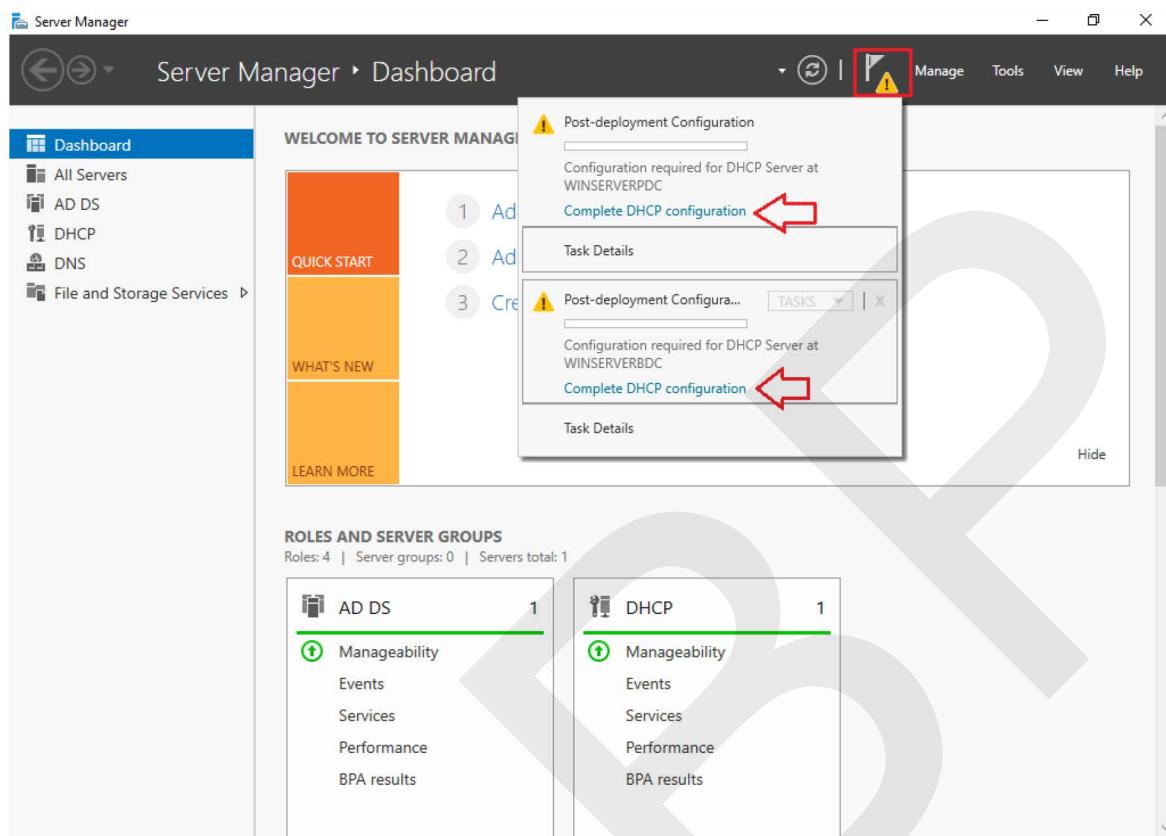
Indítsuk el a **Server Manager**-t és adjuk hozzá a PDC és a BDC szerverünket:

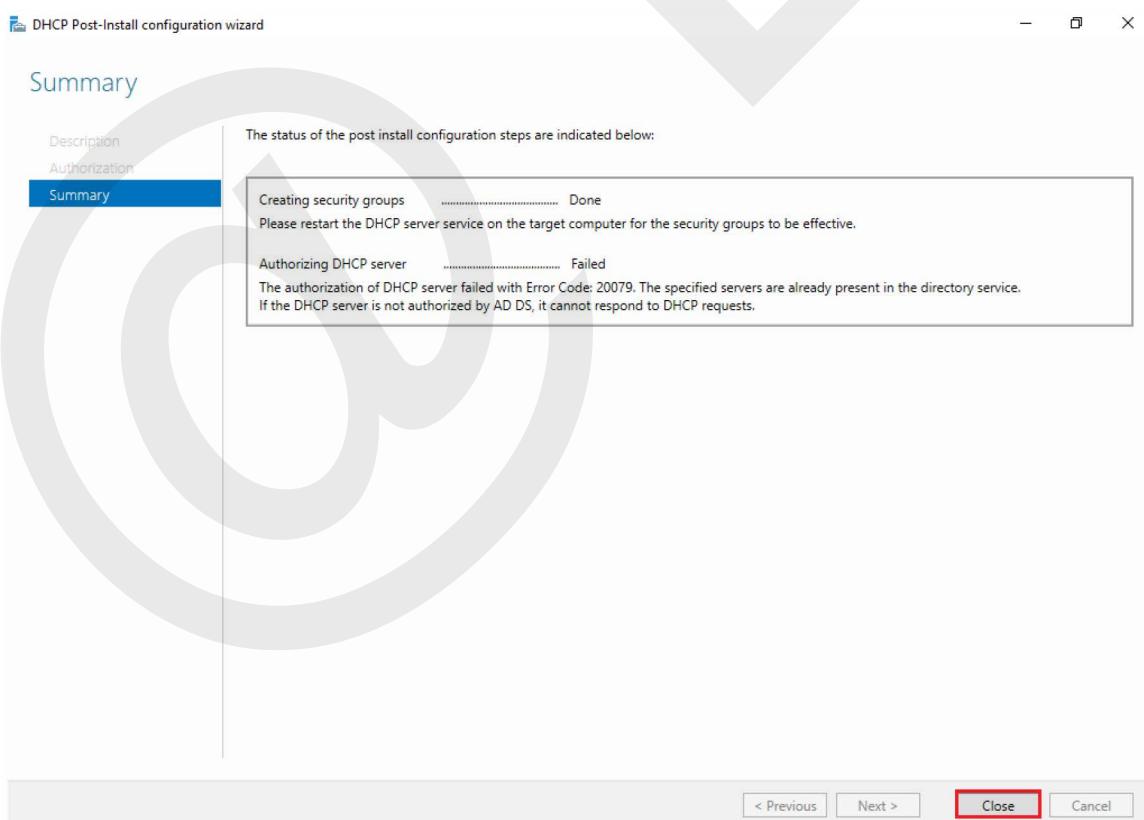
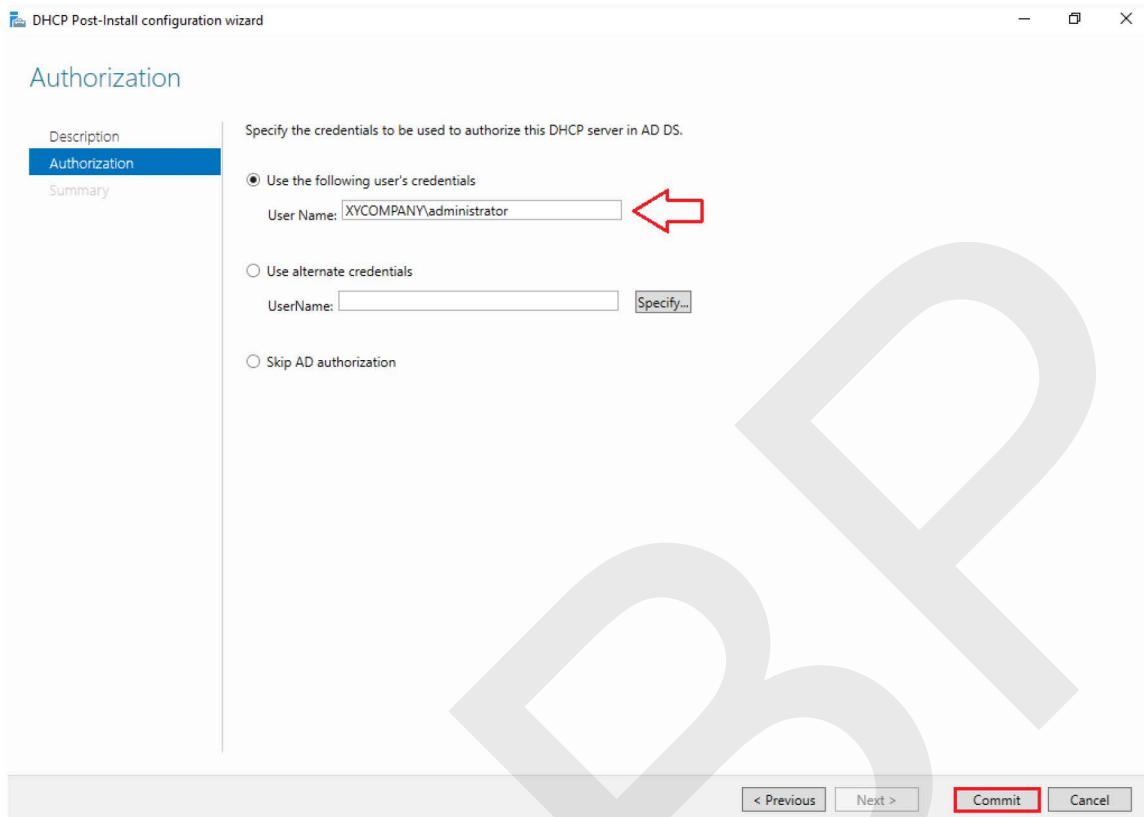




a „DNS” fülön a **pdc**, valamint a **bdc** szerverek IP címére keressünk rá, és helyezzük át a jobb oldali panelre a kiválasztott szervereket, majd „OK”

## Fejezzük be a DHCP konfigurálását minden szerver esetében:





#### 4.3 A DNS szolgáltatás konfigurálása (a winserverpdc szerveren)

Hozzunk létre a „Reverse Lookup Zones” alatt egy zónát (Network ID: 172.16.0) és vegyük fel az alábbi pointer-eket (PTR):

**New Pointer (PTR)...**:

**Host IP Address:** 172.16.0.254

**Host name:** winserverpdc.xycompany.xy

**Host IP Address:** 172.16.0.253

**Host name:** winserverbdc.xycompany.xy

**Host IP Address:** 172.16.0.252

**Host name:** winserverweb.xycompany.xy

**Forward Lookup Zones:**

**New Host (A or AAAA)...**:

**Name:** (hagyjuk üresen)

**IP address:** 172.16.0.252

**Name:** www

**IP address:** 172.16.0.252

**Name:** ftp

**IP address:** 172.16.0.252

#### 4.4 Active Directory | szervezeti egységek | felhasználók | csoportok felvétele

Hozzuk létre az alábbi szervezeti felépítést a már tanult módon! Vegyük fel szervezeti egységeket, felhasználókat, csoportokat! A felhasználókat tegyük bele a megfelelő csoportba!

xycompany

managing\_director (1 fő) → Michael Smith | michael\_s → jelszó: #Cc123456789@  
finance\_department (1 fő)

personnel\_department (2 fő)

marketing\_department (2 fő)

secretariat (1 fő)

programmers (2 fő) 2/1 → William Johnson | william\_j → jelszó: #Cc123456789@  
ftp\_users (1 fő) → ftpuser → jelszó: #Dd123456789@

## 5. A Backup Domain Controller működésének ellenőrzése

Állítsuk le a **winserverpdc** szervert! Indítsuk újra a Windows klienst, majd jelentkezzünk be egy, az Active Directory-ban létrehozott felhasználóval. Az elsődleges tartományvezérőn nem elérhető, de a tartalék tartományvezérő (**winserverbdc**) átveszi a szerepét, és a felhasználók zavartalanul tudnak dolgozni a tartományi környezetben.

Ellenőrizzük az IP címzést és az internet elérhetőségét a tartalék tartományvezérőn bejelentkezett felhasználóval:

```
C:\Users\michael_s>ipconfig /all
Windows IP Configuration

Host Name . . . . . : winclient
Primary Dns Suffix . . . . . : xycompany.xy
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : xycompany.xy

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix . : xycompany.xy
    Description . . . . . : Intel(R) PRO/1000 MT Desktop Adapter
    Physical Address . . . . . : 08-00-27-4A-A4-F1
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled. . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::695b:4d02:2c07:12d8%13(PREFERRED)
    IPv4 Address . . . . . : 172.16.8.100(Preferred)
        Subnet Mask . . . . . : 255.255.0.0
        Lease Obtained. . . . . : Saturday, July 2, 2022 12:42:37 PM
        Lease Expires. . . . . : Sunday, July 10, 2022 12:42:37 PM
        Default Gateway . . . . . : 172.16.8.1
        DHCP Server . . . . . : 172.16.8.253
        DHCPv6 Client DUID. . . . . : 00-01-00-01-2A-50-84-A2-08-00-27-4A-A4-F1
        DNS Servers . . . . . : 172.16.8.254
        172.16.8.253
    NetBIOS over Tcpip. . . . . : Enabled

C:\Users\michael_s>

C:\Users\michael_s>ping 8.8.8.8
Pinging 8.8.8.8 with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=9ms TTL=58
Reply from 8.8.8.8: bytes=32 time=11ms TTL=58
Reply from 8.8.8.8: bytes=32 time=8ms TTL=58
Reply from 8.8.8.8: bytes=32 time=8ms TTL=58

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 8ms, Maximum = 11ms, Average = 9ms

C:\Users\michael_s>ping cisco.com
Pinging cisco.com [72.163.4.185] with 32 bytes of data:
Reply from 72.163.4.185: bytes=32 time=169ms TTL=234
Reply from 72.163.4.185: bytes=32 time=169ms TTL=234
Reply from 72.163.4.185: bytes=32 time=165ms TTL=234
Reply from 72.163.4.185: bytes=32 time=165ms TTL=234

Ping statistics for 72.163.4.185:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 165ms, Maximum = 169ms, Average = 167ms

C:\Users\michael_s>
```

A tesztelés után indítsuk el újra a **winserverpdc** szervert és indítsuk újra a Windows klienst is!

## 6. Windows Server (GUI) | Webserver | FTP Server | Fileserver | Print Server

Telepítük és konfiguráljuk a Windows szervert a már tanult módon!

A Windows szerver telepítésekor minden lemezt (50GB és 10GB) partcionáljuk és a legnagyobb méretű lemezre telepítük a rendszert!

**User name:** Administrator

**Password:** #Aa123456789@

## 6.1 A szerver kezdeti konfigurálása

**Konfiguráljuk a szerver fix IP címzését:**

**IP address:** 172.16.0.252

**Subnet mask:** 255.255.0.0

**Default gateway:** 172.16.0.1

**Preferred DNS server:** 172.16.0.254

**Alternate DNS server:** 172.16.0.253

**Telepítük a „Guest Additions” kiegészítőt!**

A virtuális gép újraindulása után jelentkezzünk vissza az **administrator** felhasználóval!

**Állítsuk be a gép leírását és a nevét:**

**Computer description:** winserverweb

**Computer name:** winserverweb

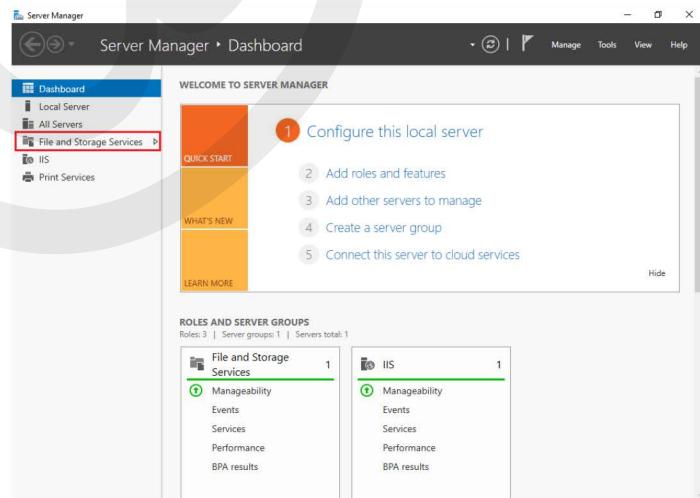
Kapcsoljuk be a távoli asztal kapcsolatot!

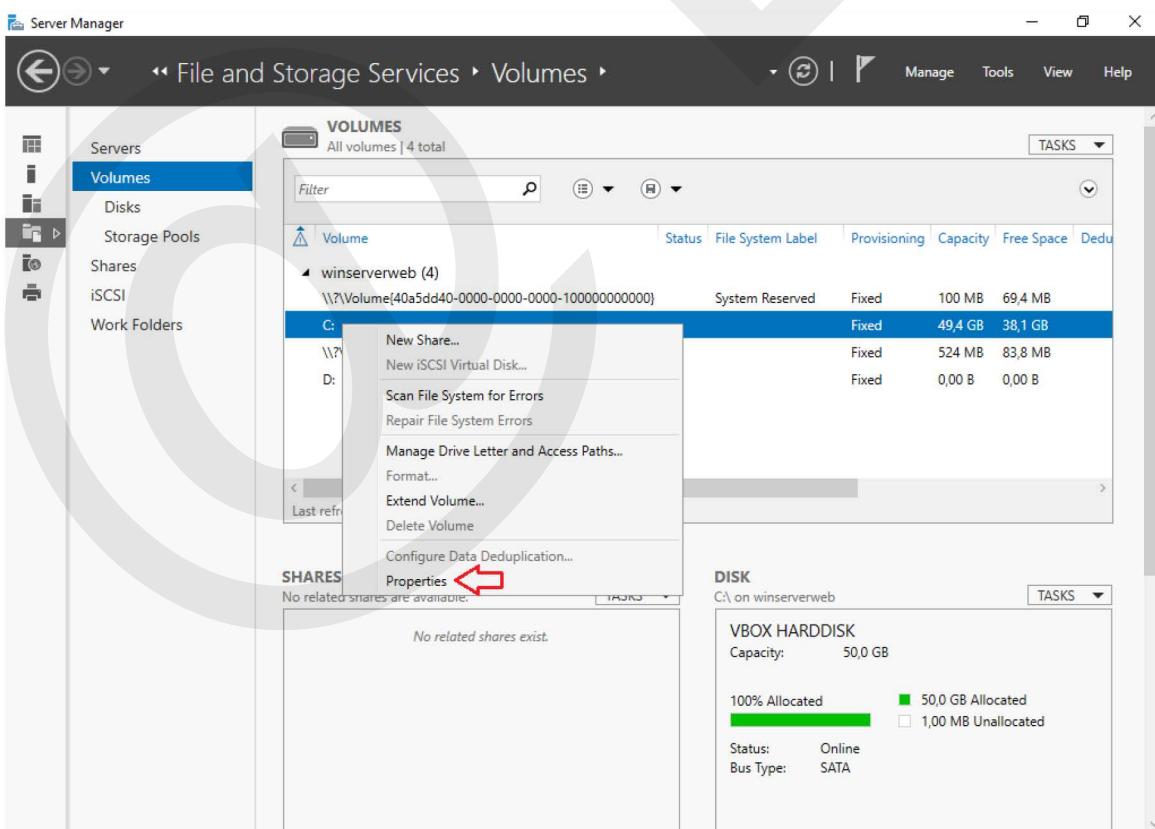
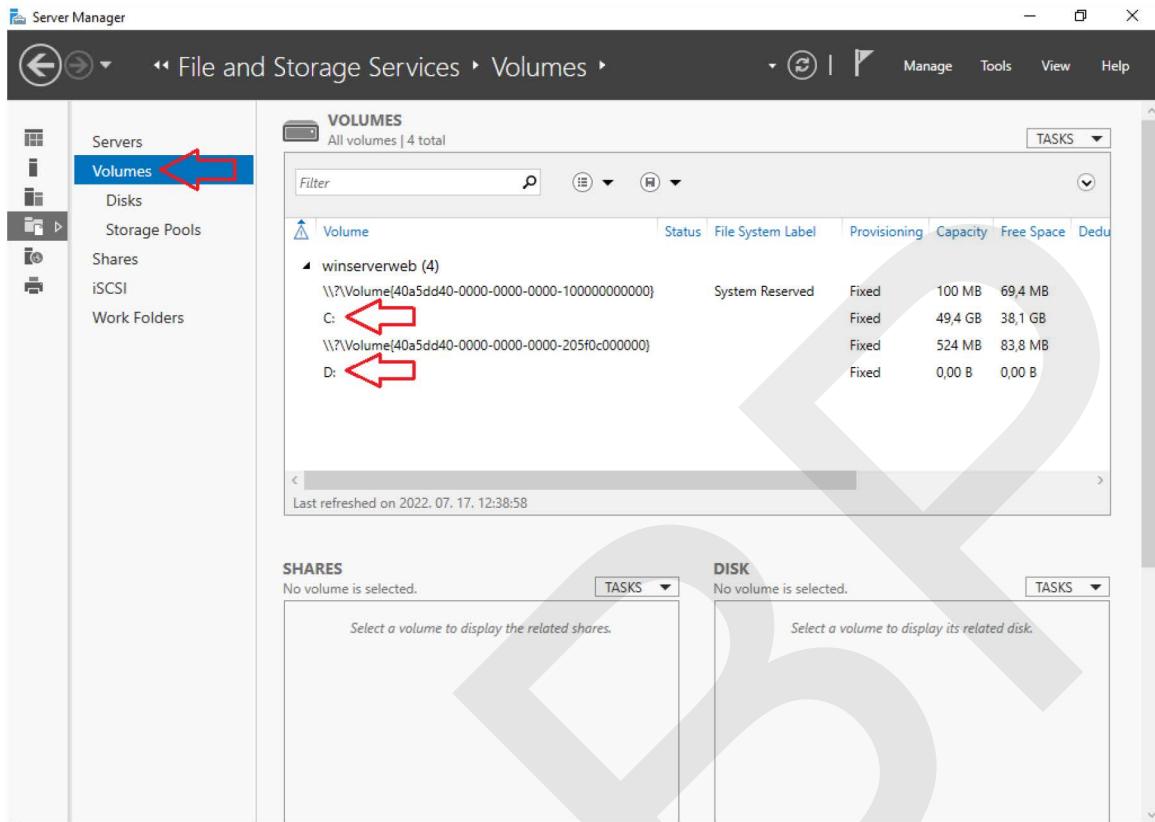
**Léptessük a webszervert az xycompany tartományba!**

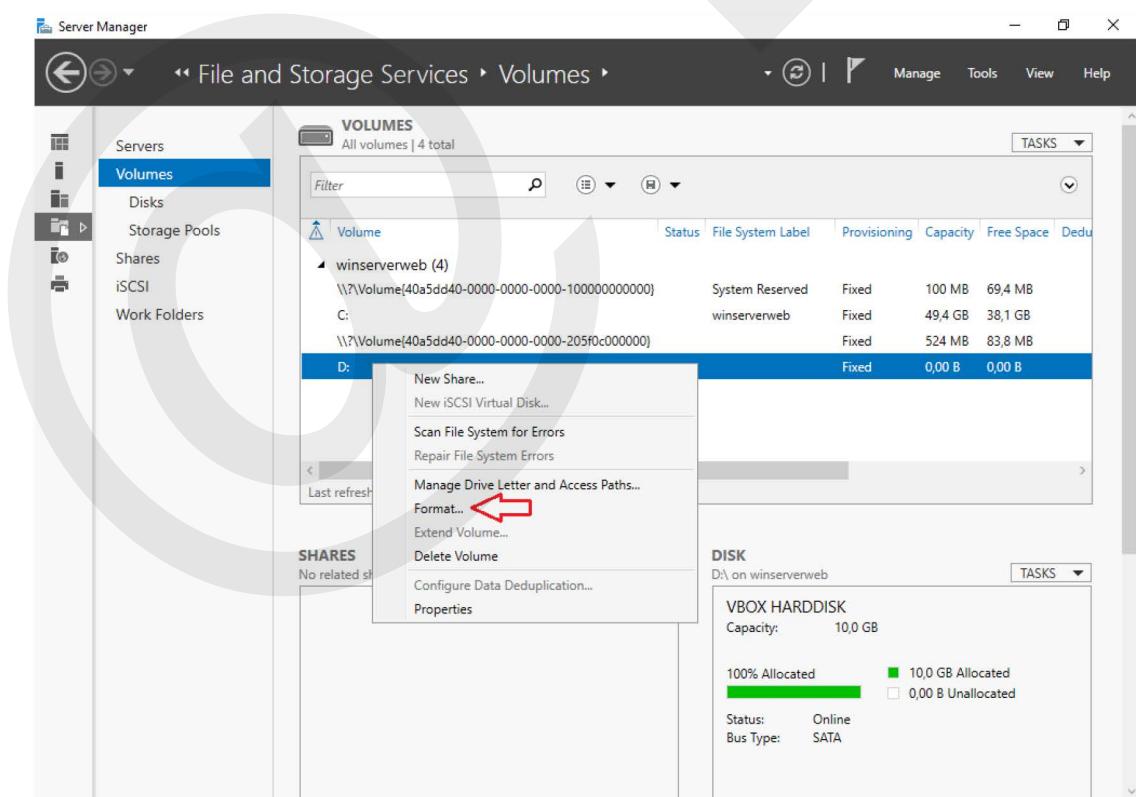
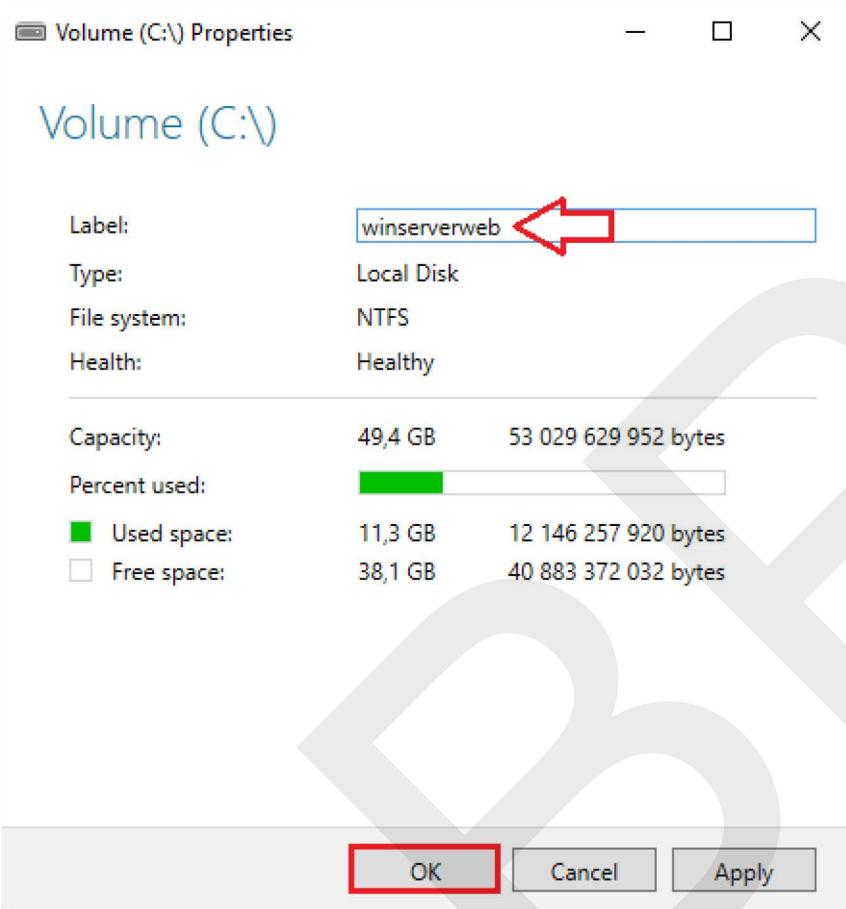
A gép újraindulása után kapcsolódjunk távoli asztal kapcsolaton keresztül a gazdagépről a szerverhez! Indítsuk el a PowerShell-t **adminisztrátorként** és **konfiguráljuk a már tanult módon a megfelelő időzónát!**

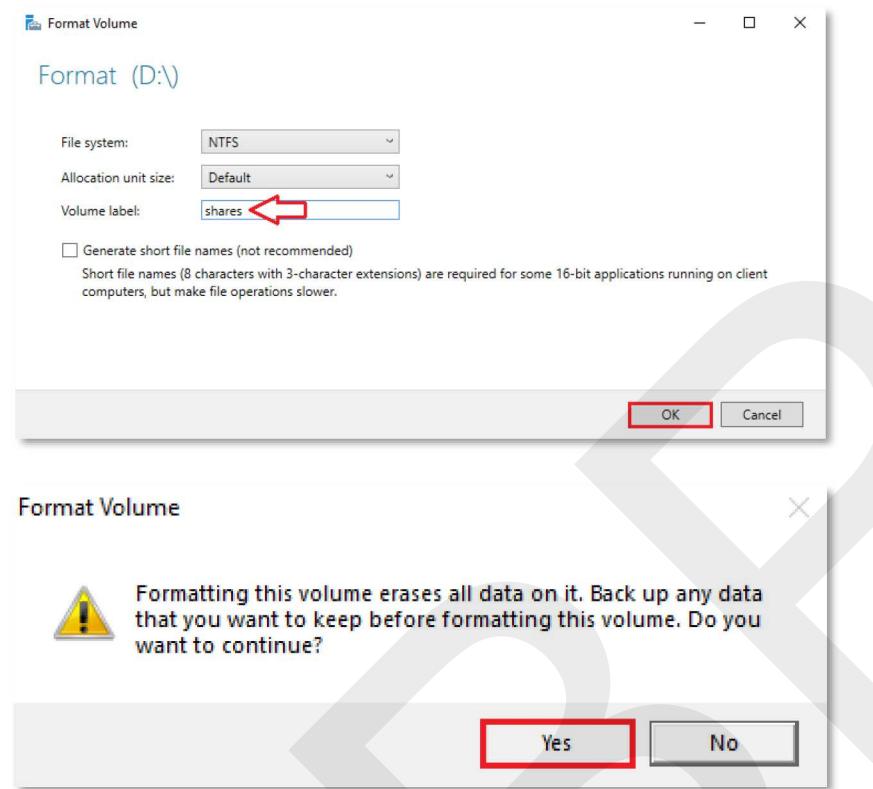
Lépjünk ki a távoli asztal kapcsolatból, és jelentkezzünk vissza a **winserverweb** szerverre **tartományi adminisztrátorként!**

## 6.2 File and Storage Services (meghajtóbeállítások)





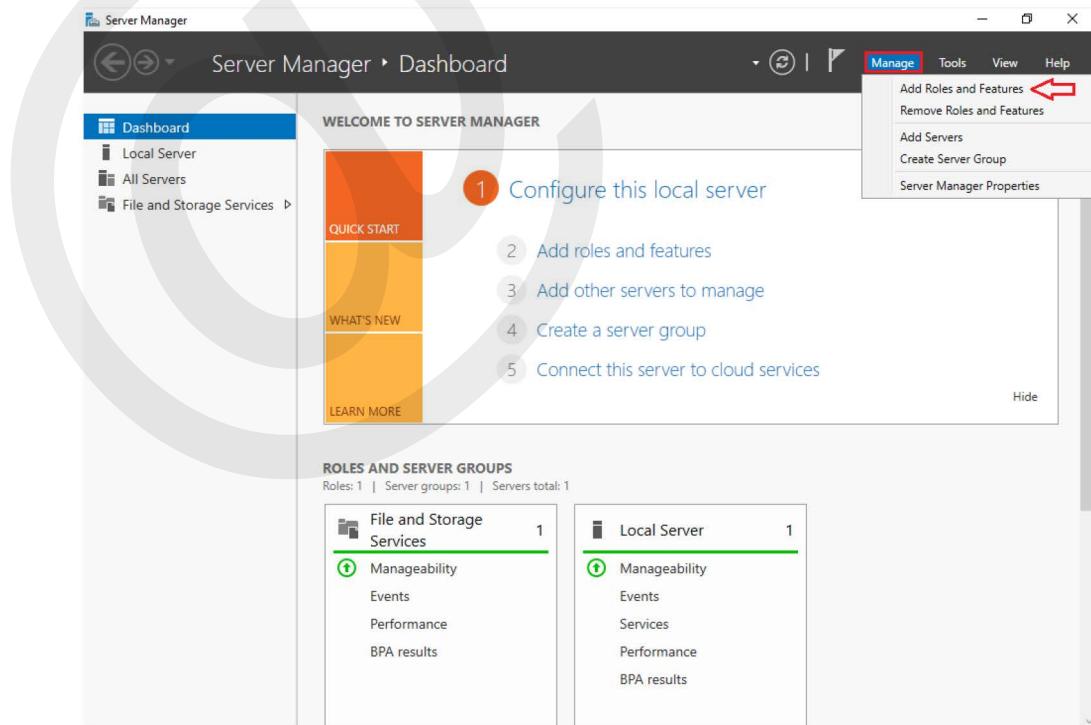


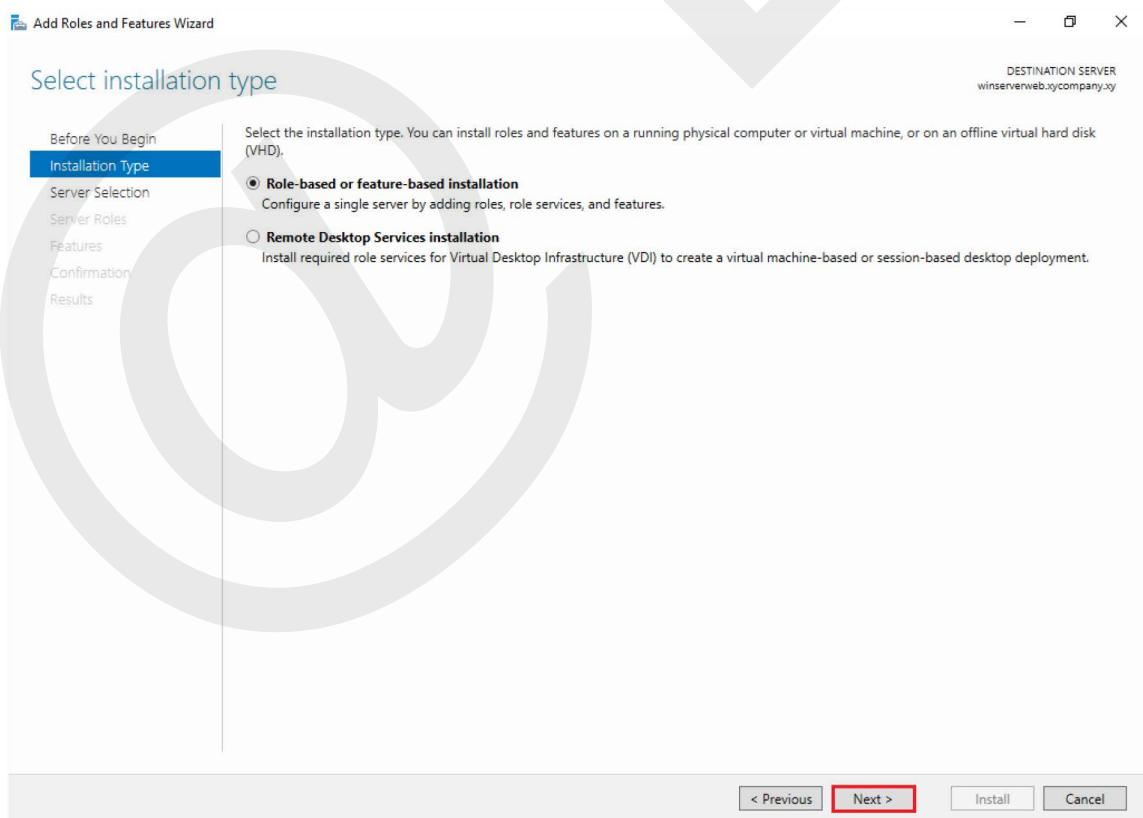
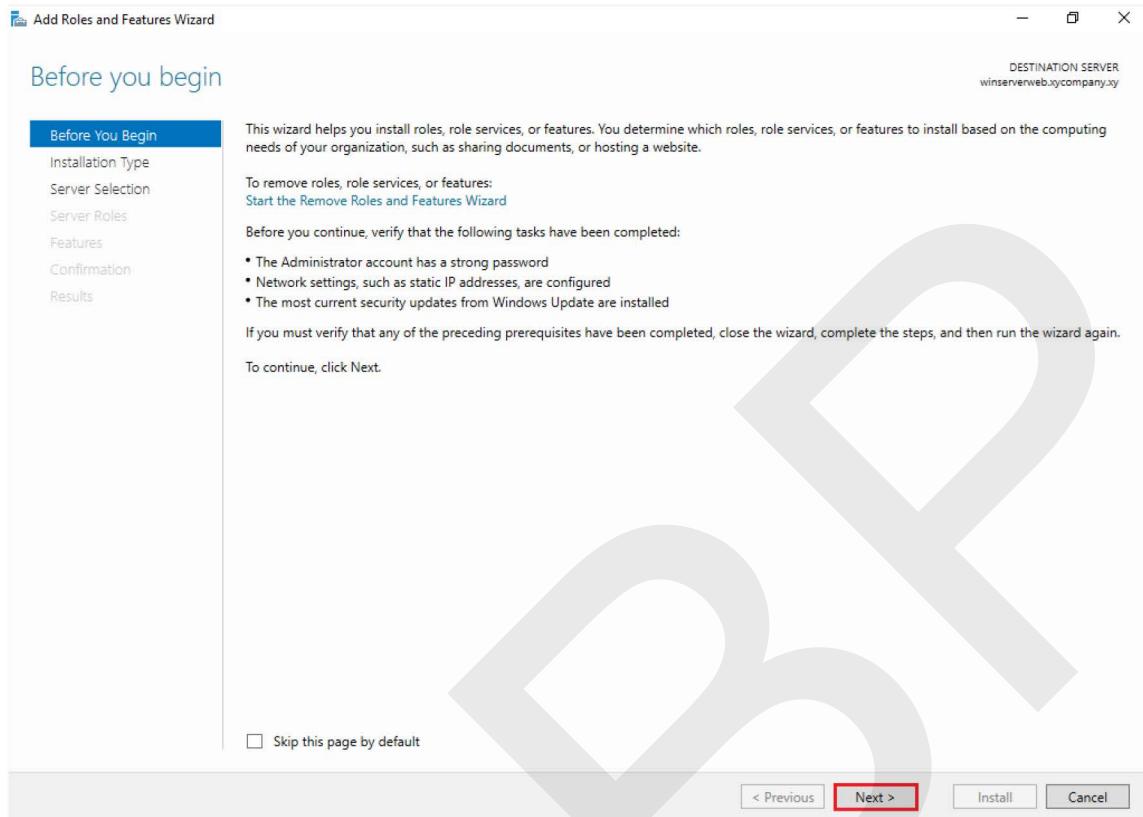


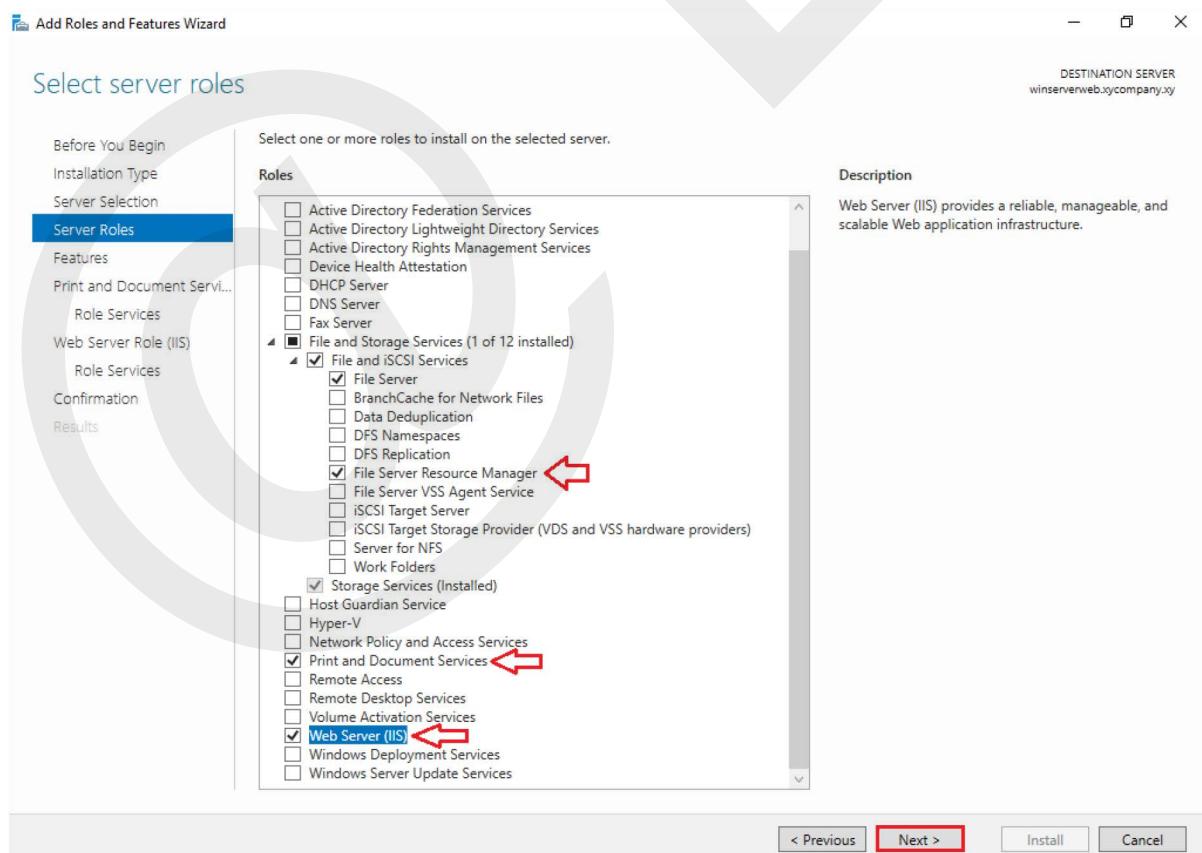
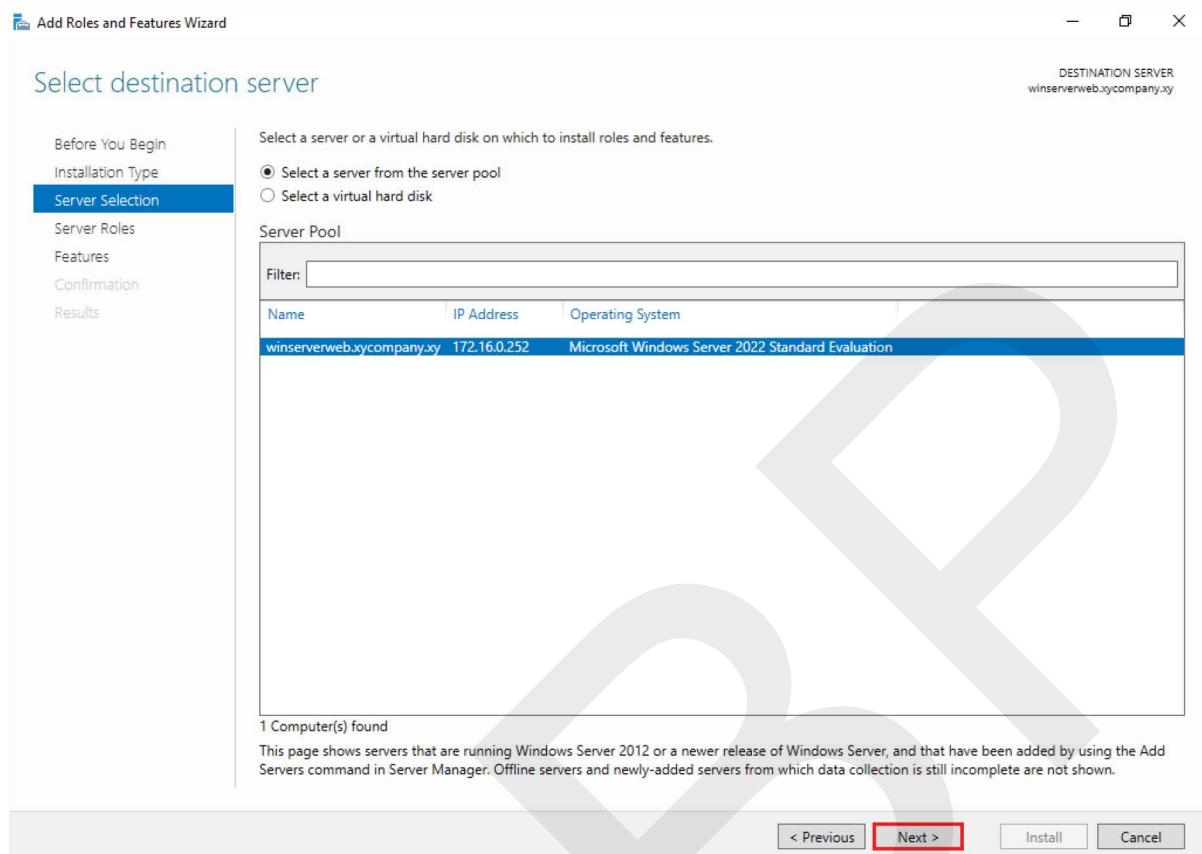
### 6.3 Web | FTP | Print szerver szolgáltatások telepítése

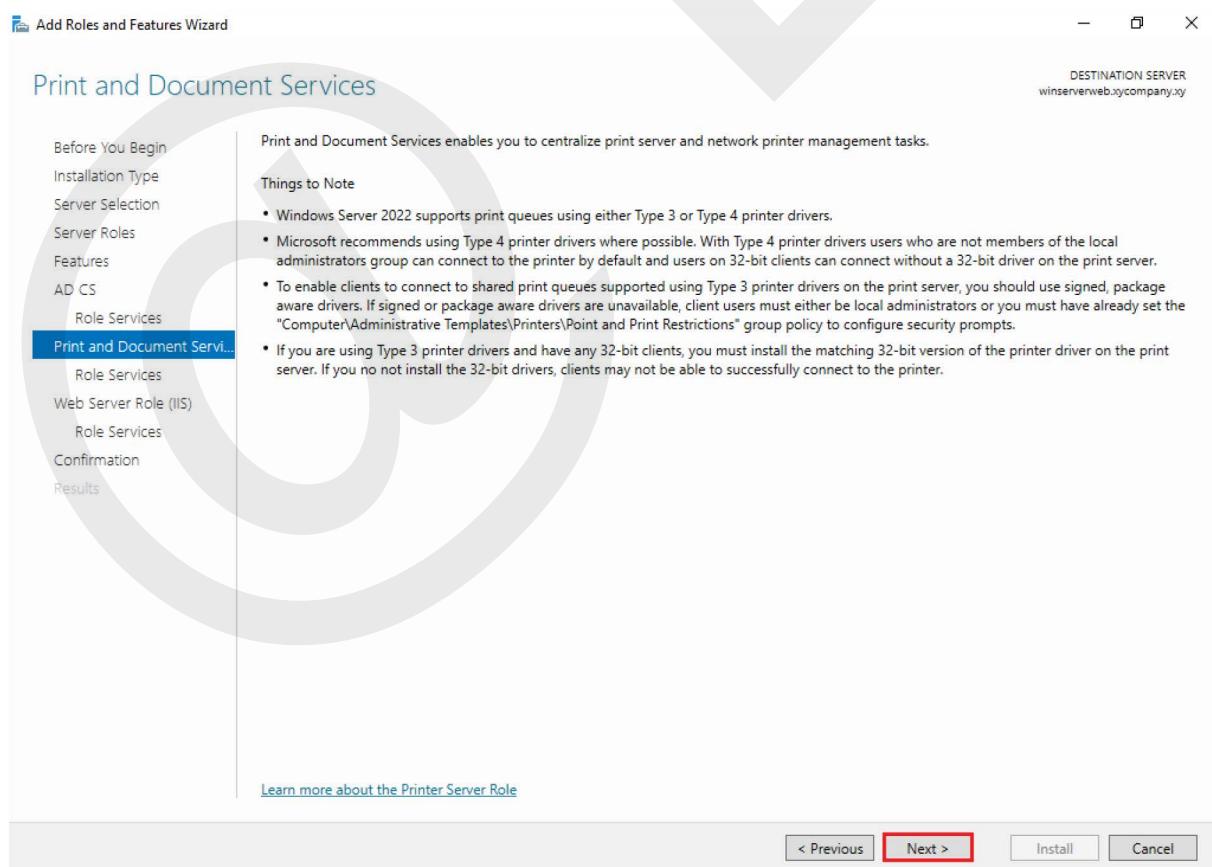
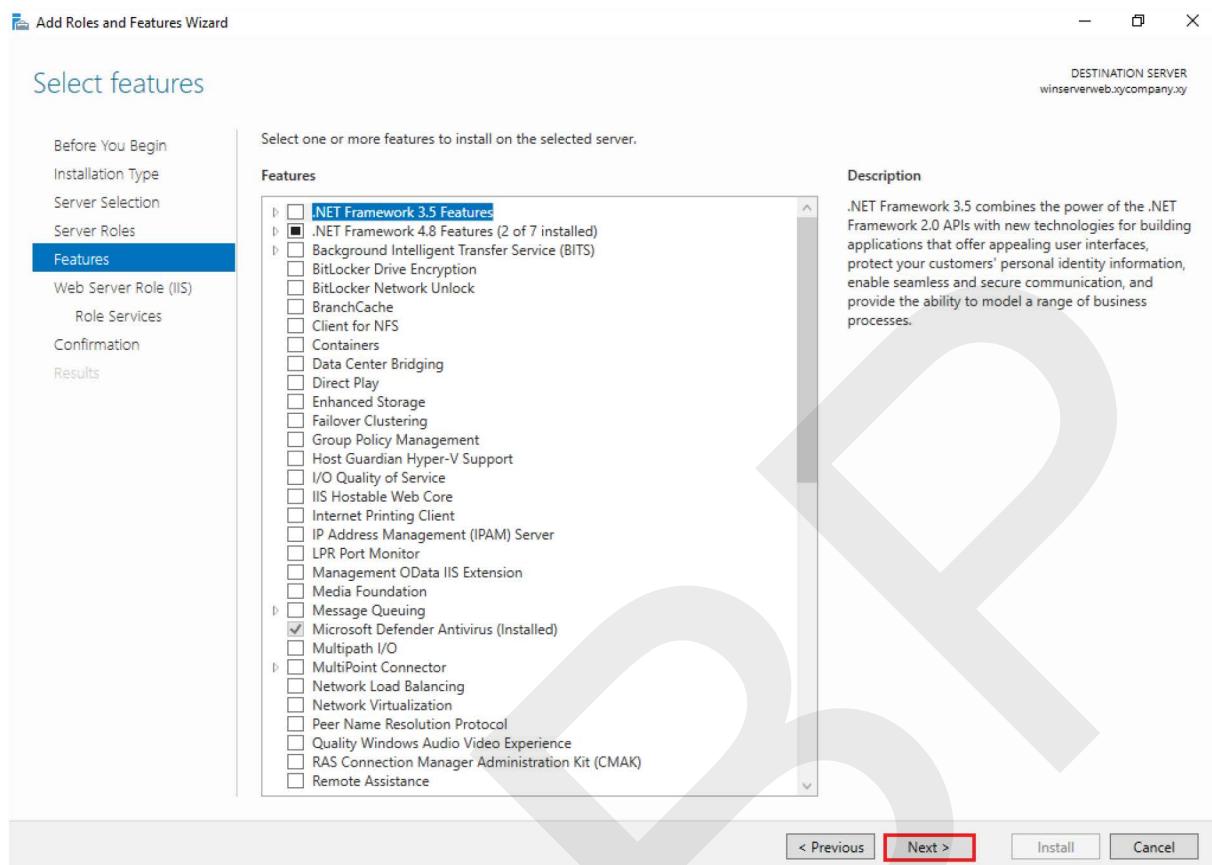
Jelentkezzünk be a **winserverweb** szerverre tartományi adminisztrátorként!

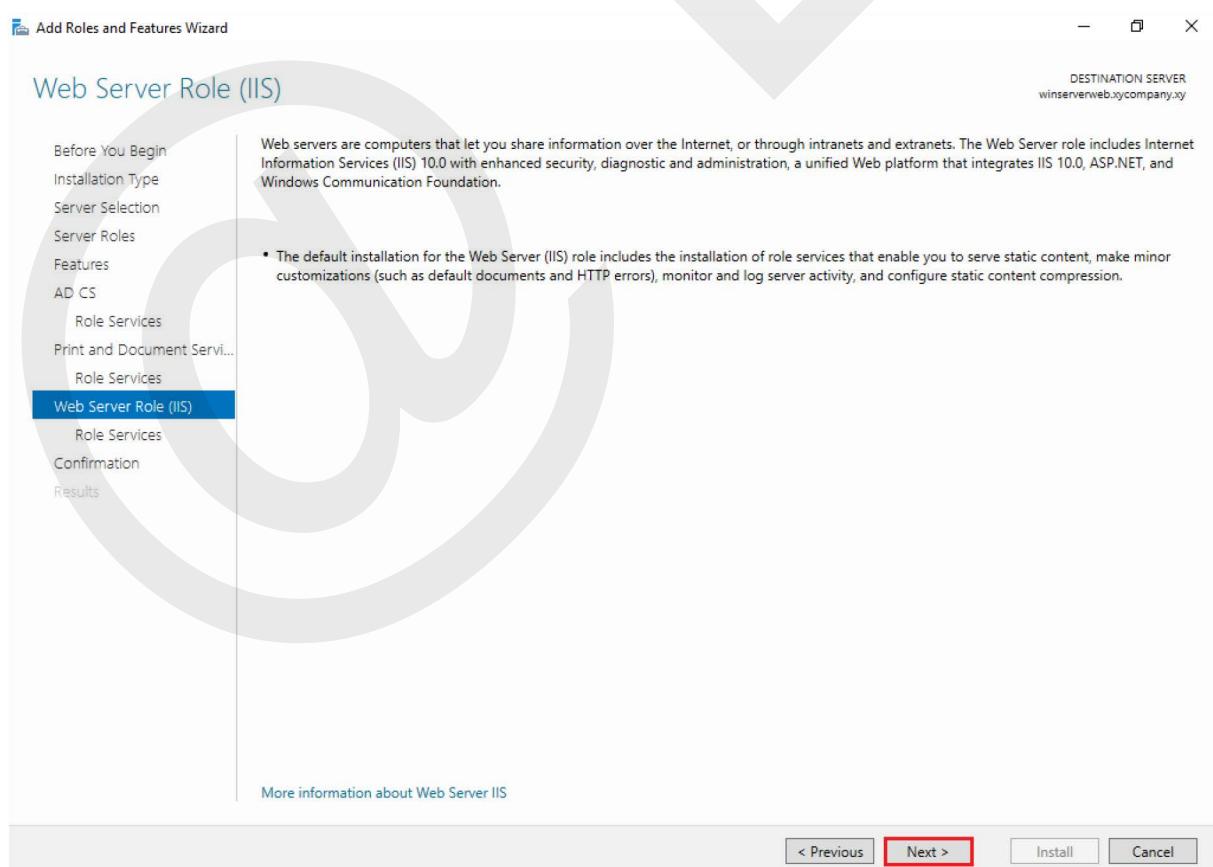
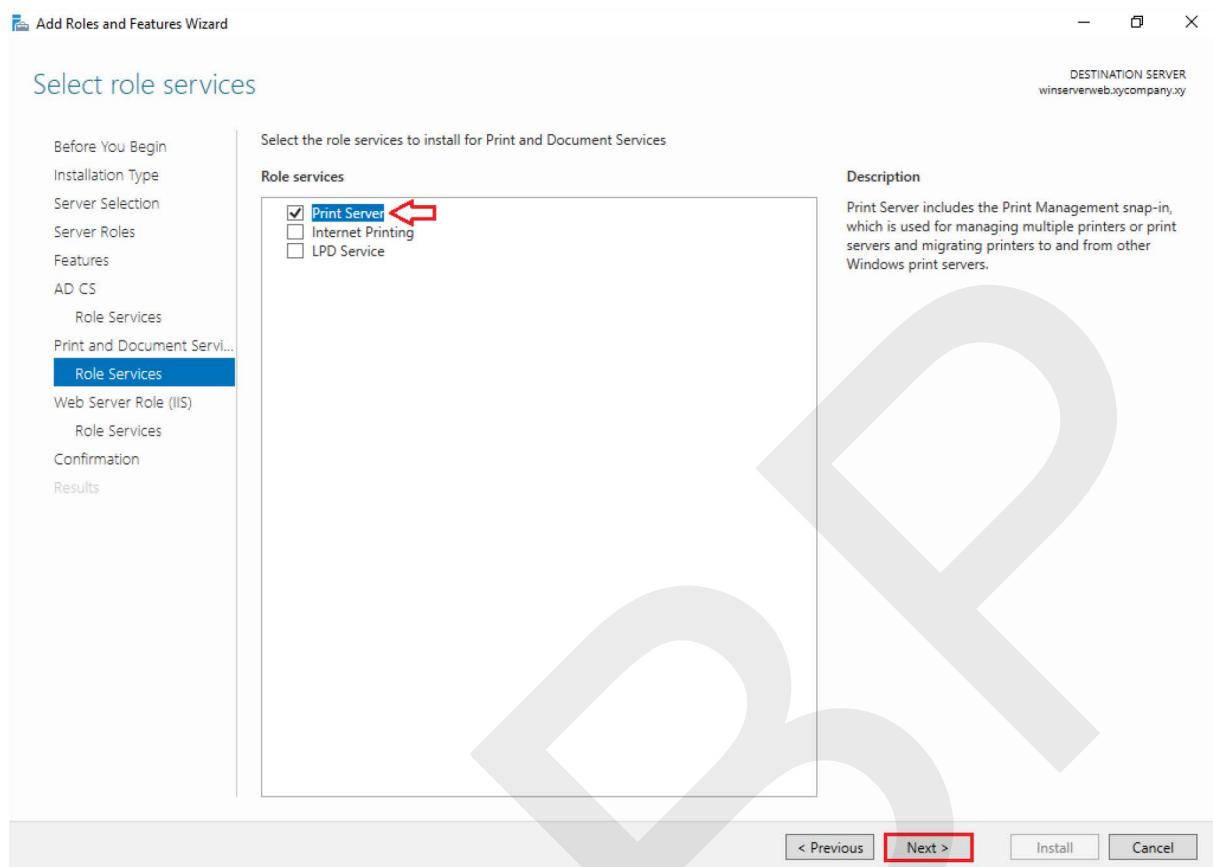
A Server Manager-ben telepítük az alábbi szolgáltatásokat:

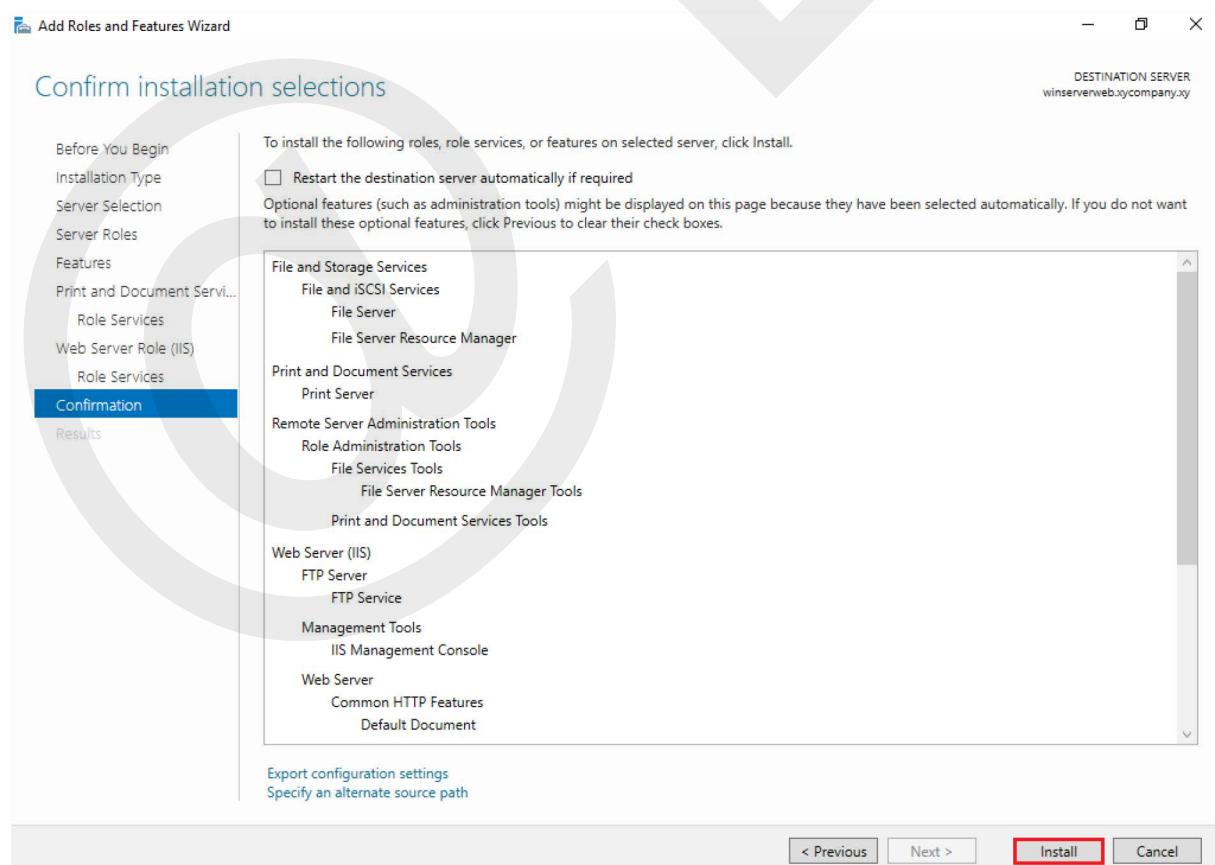
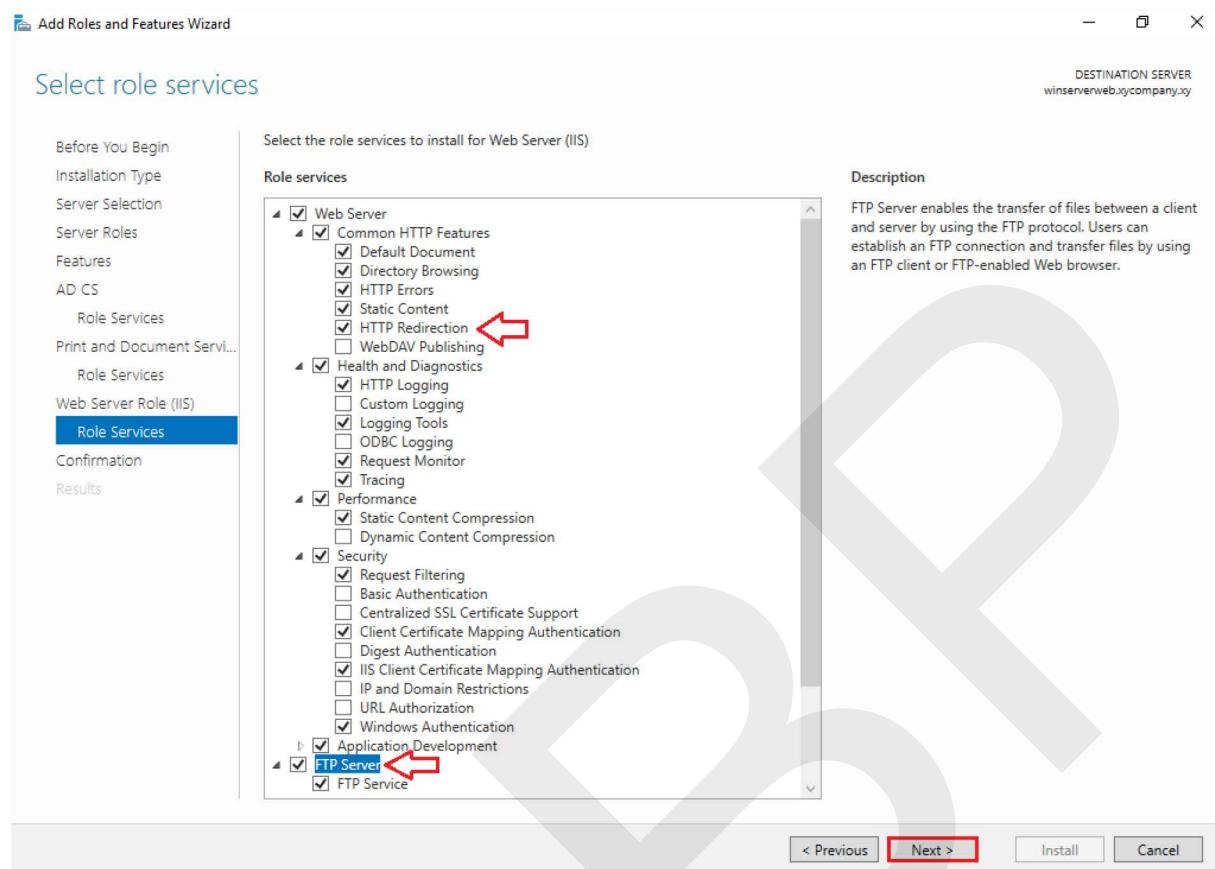


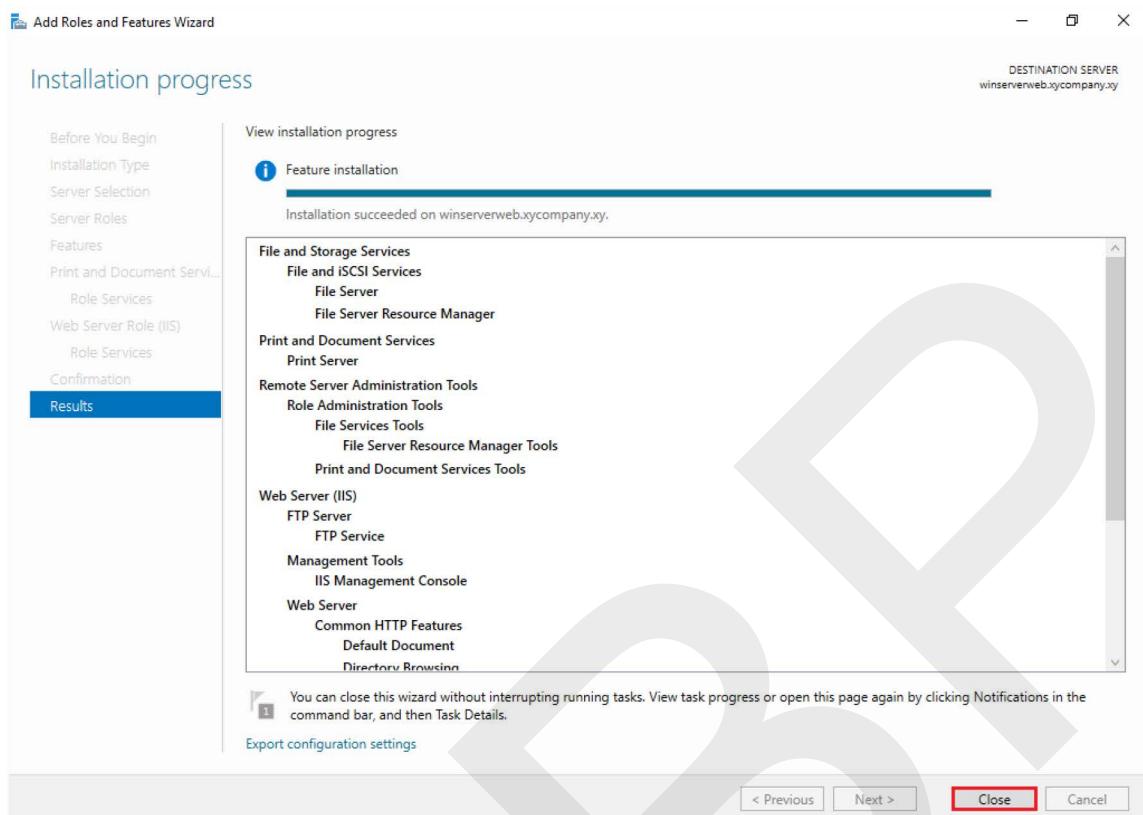




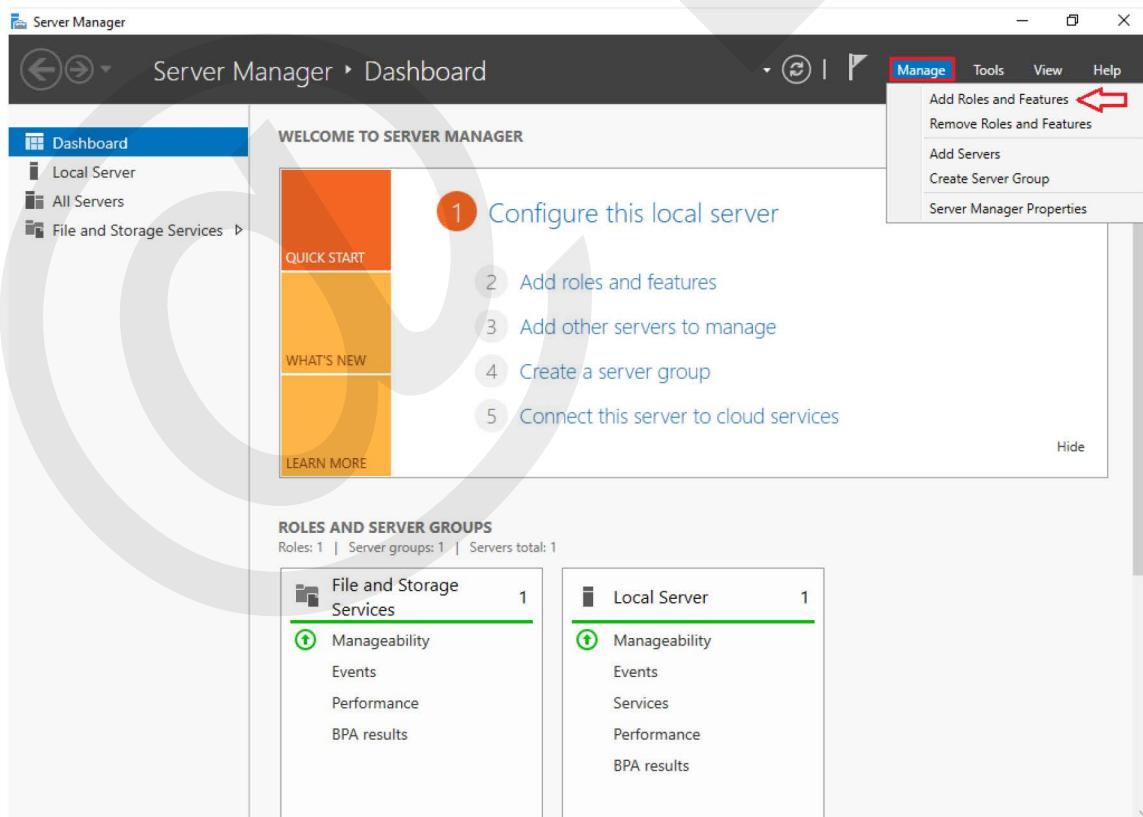


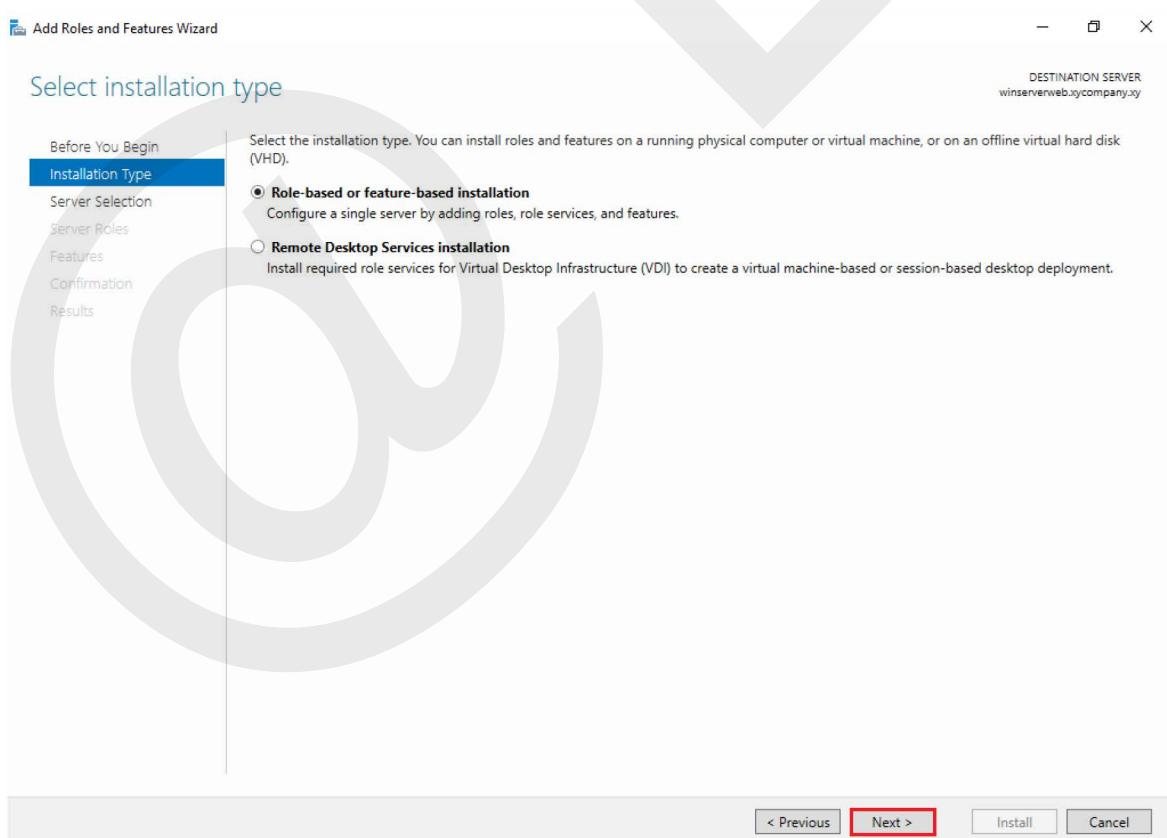
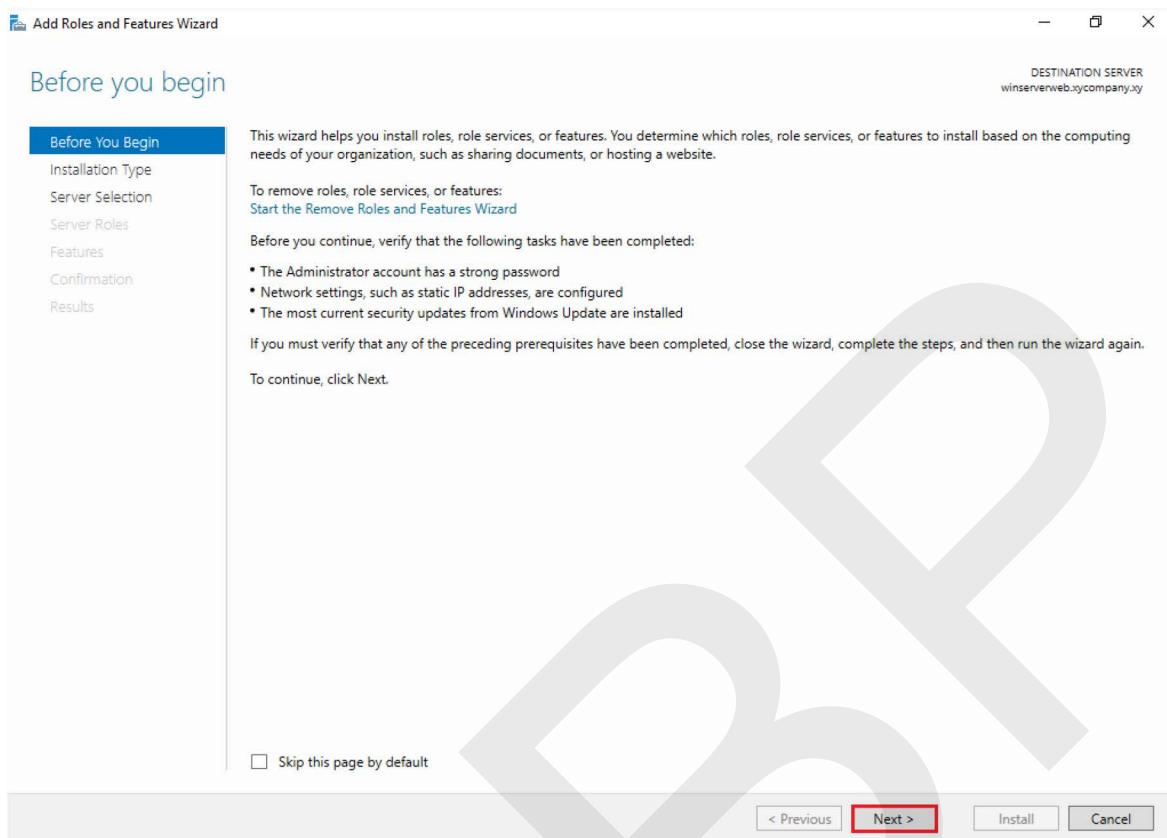


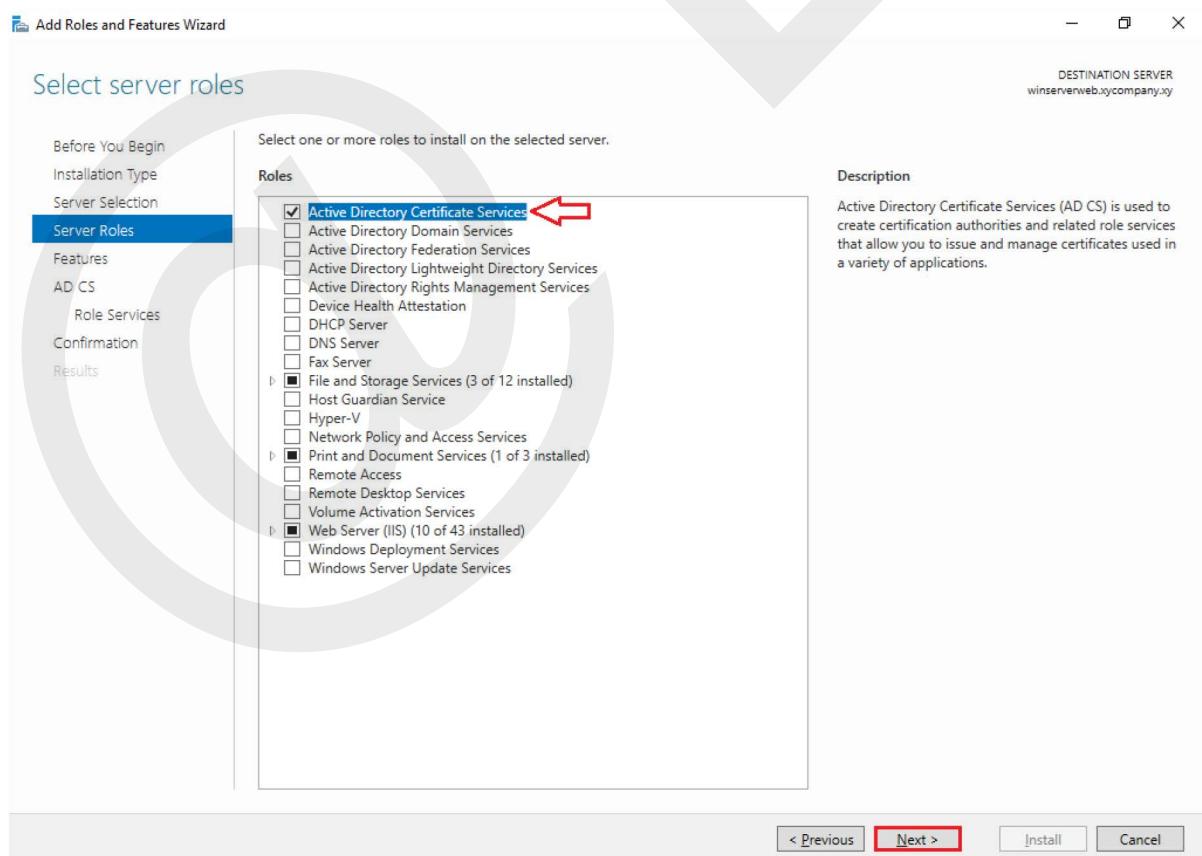
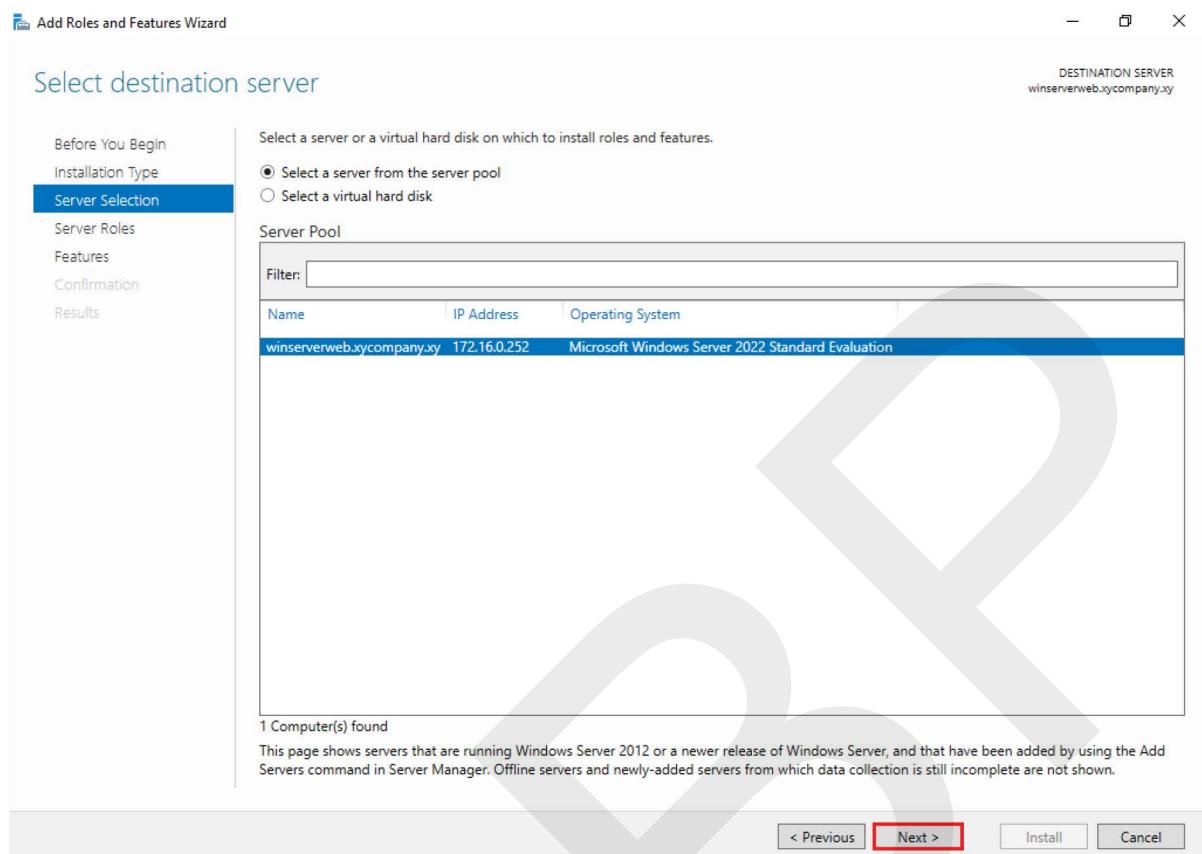


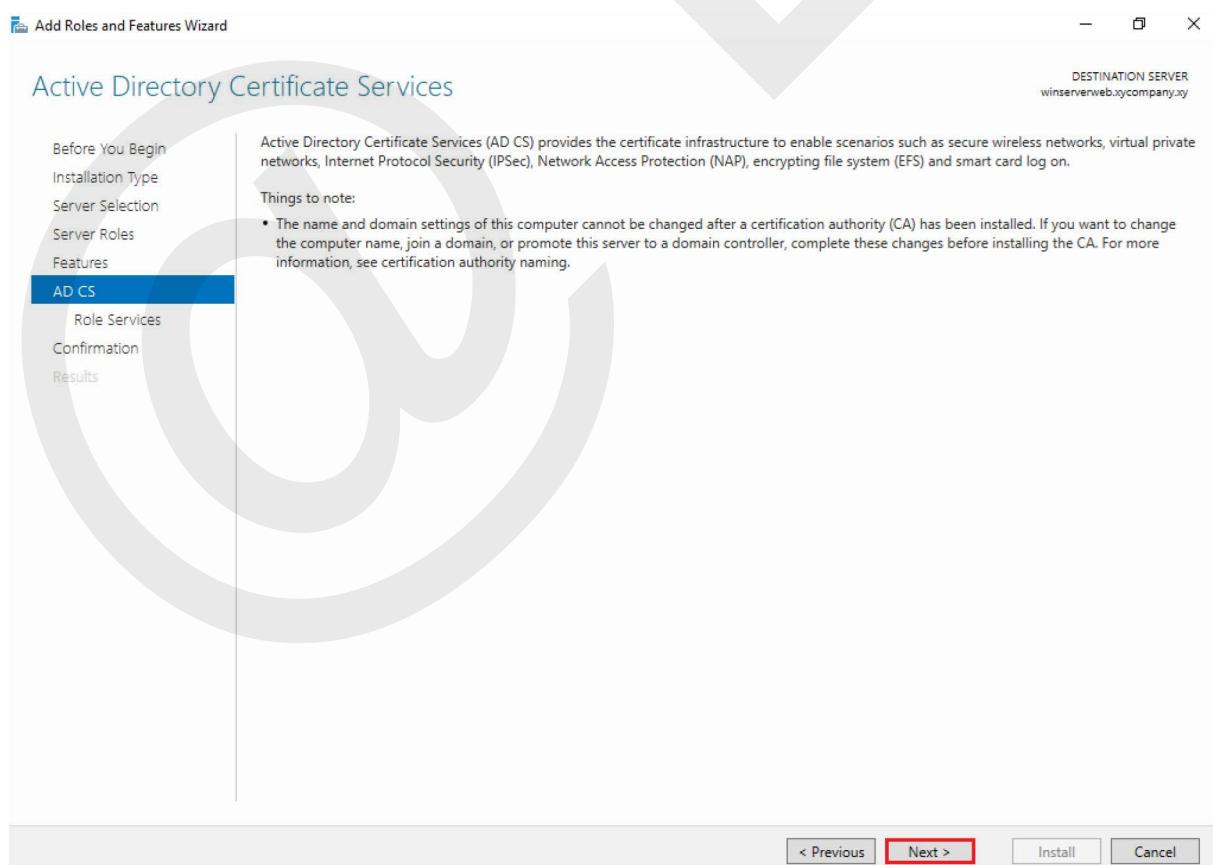
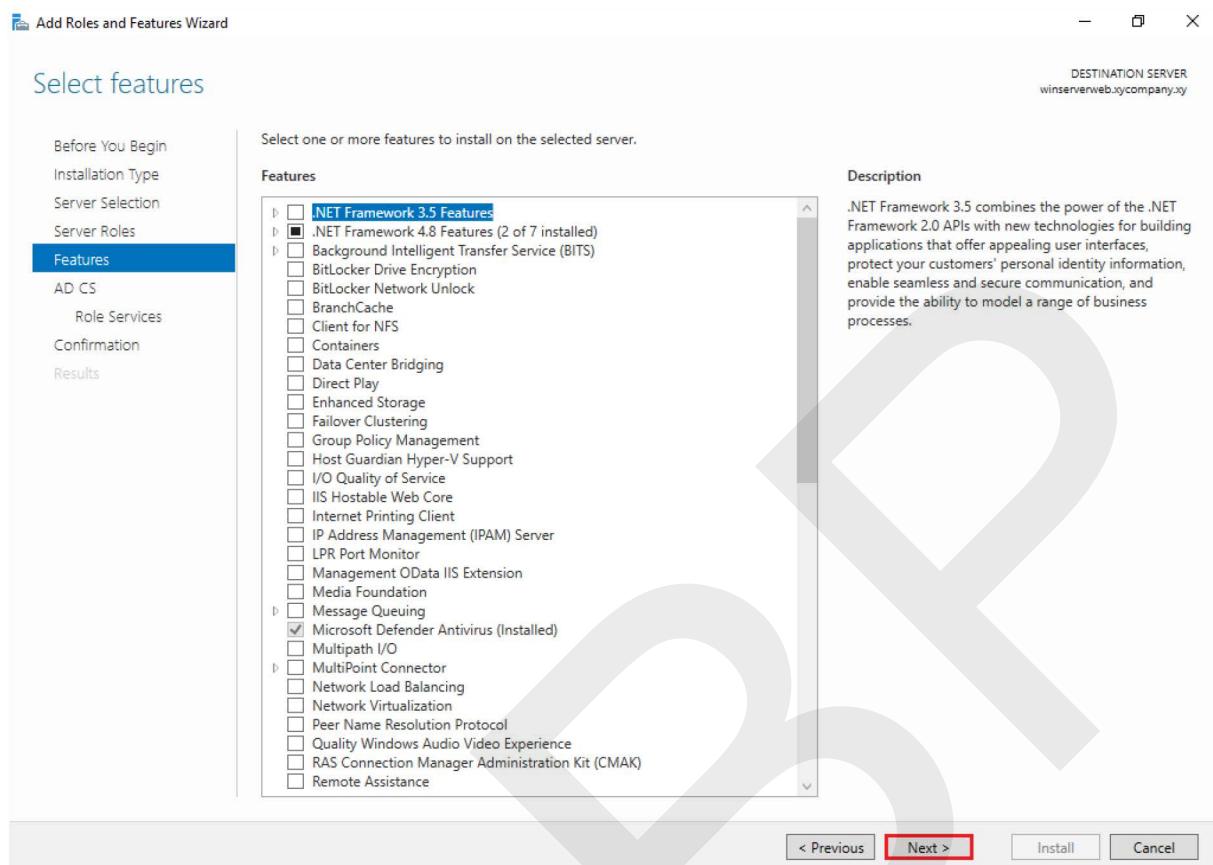


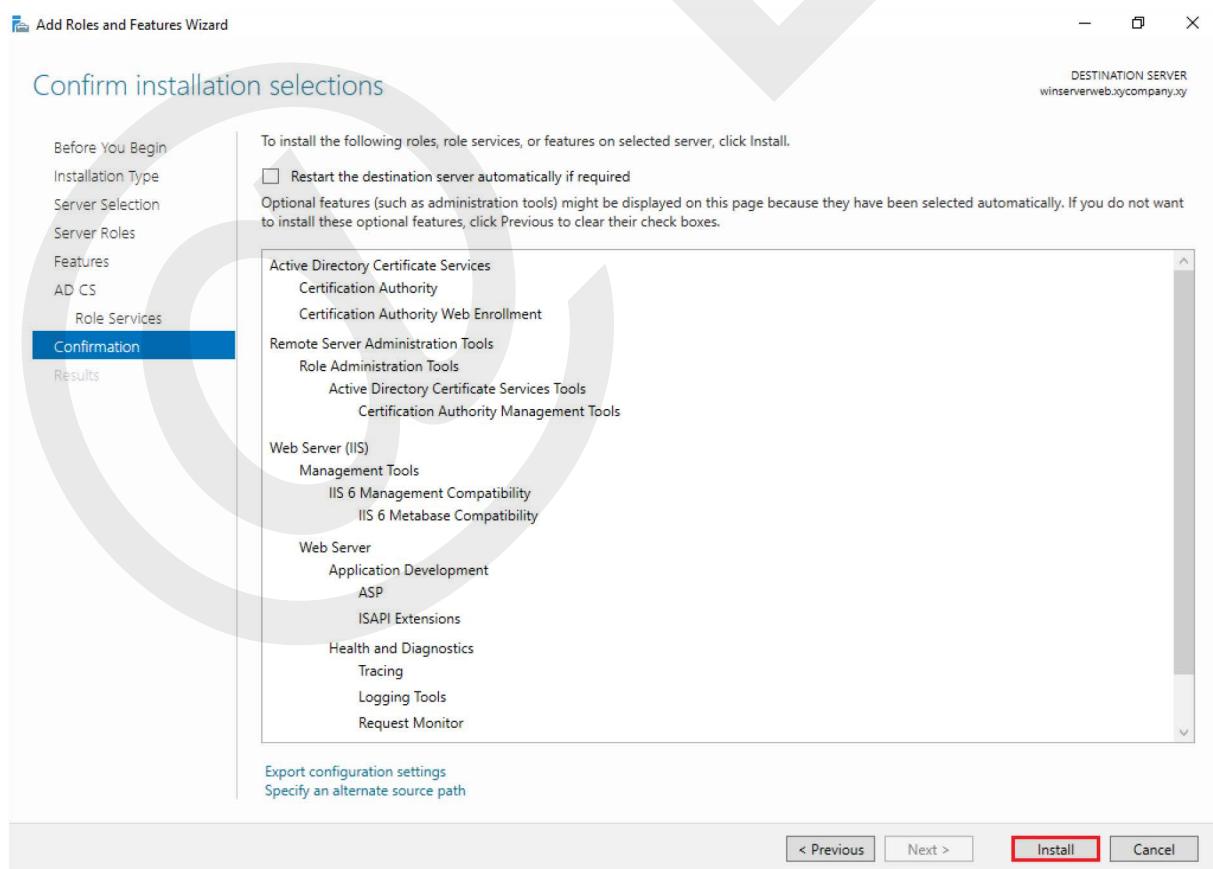
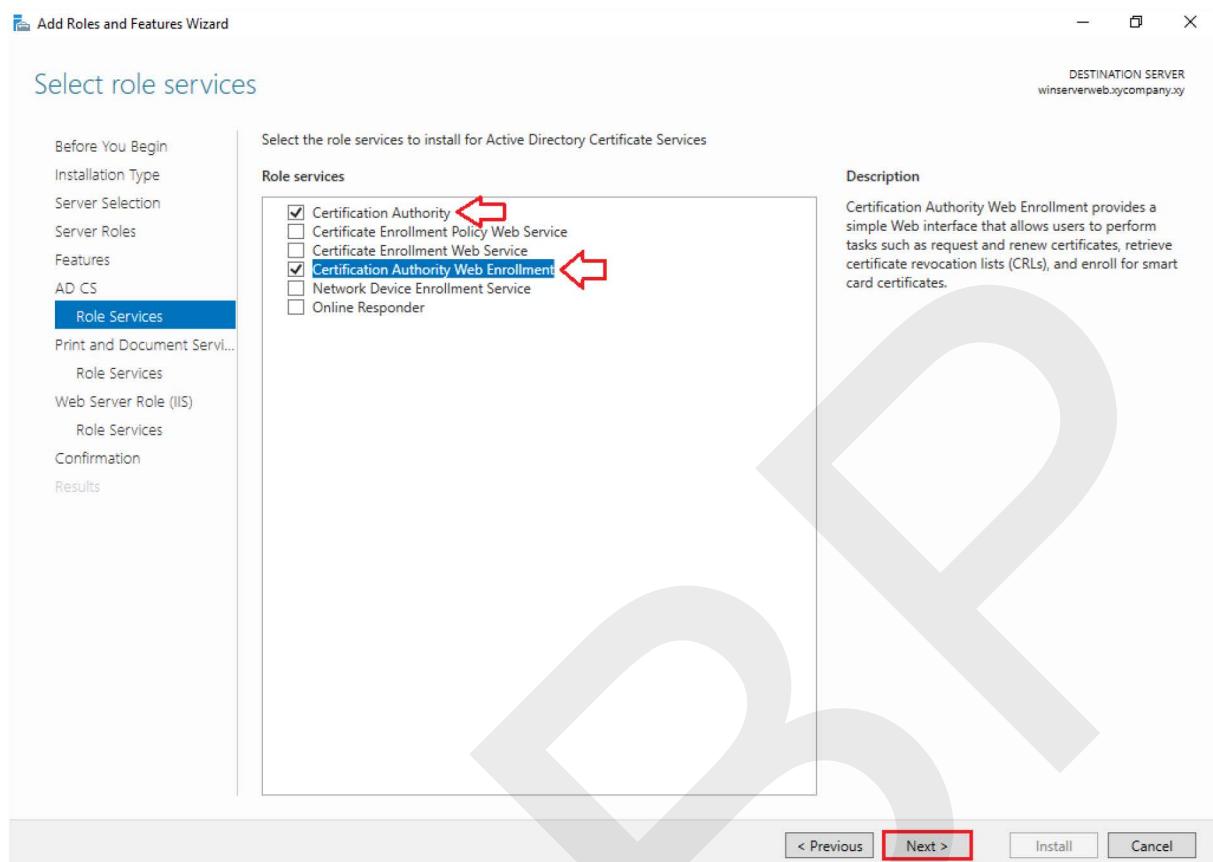
## 6.4 Active Directory Certificate Services (Root CA) telepítése és konfigurálása

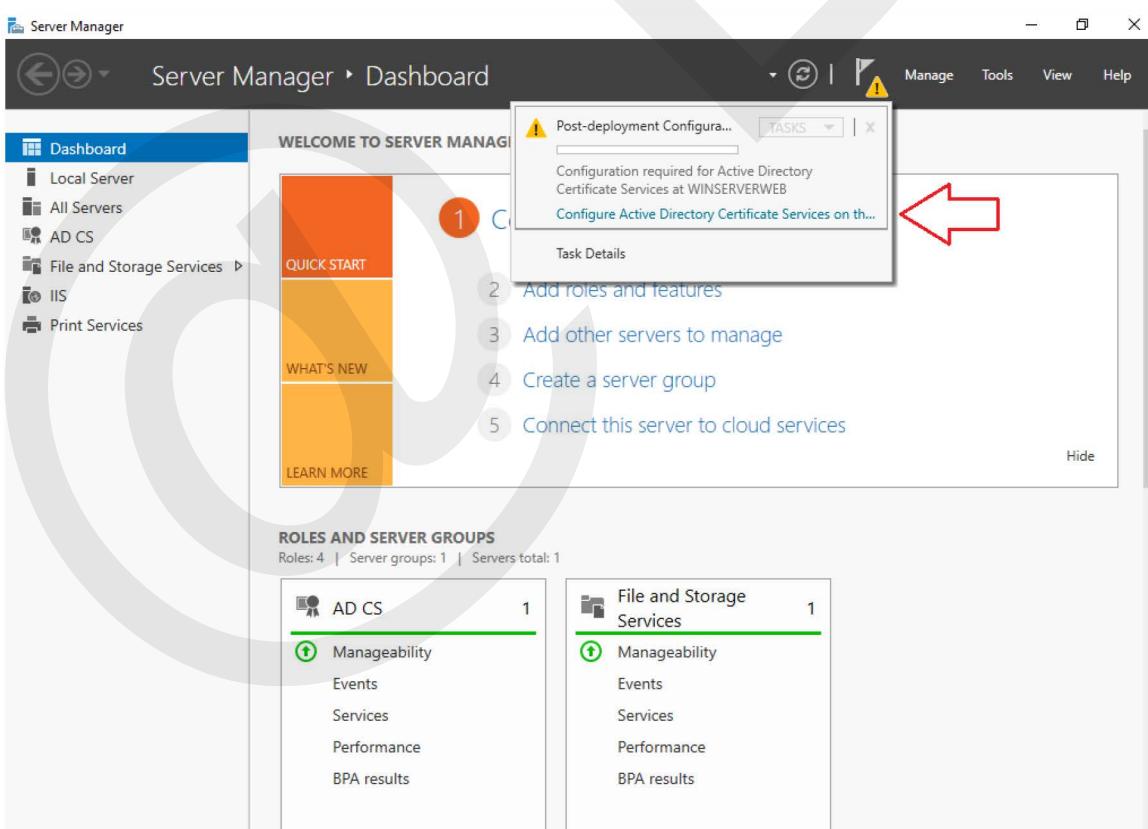
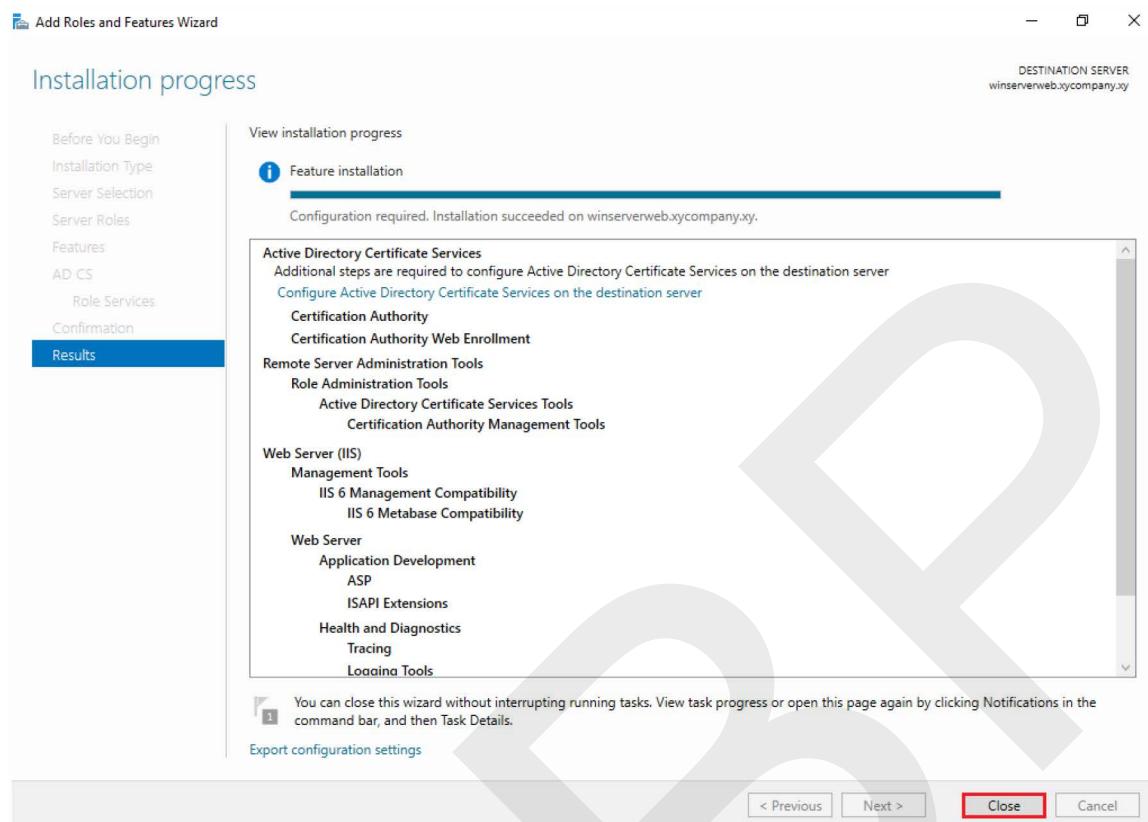


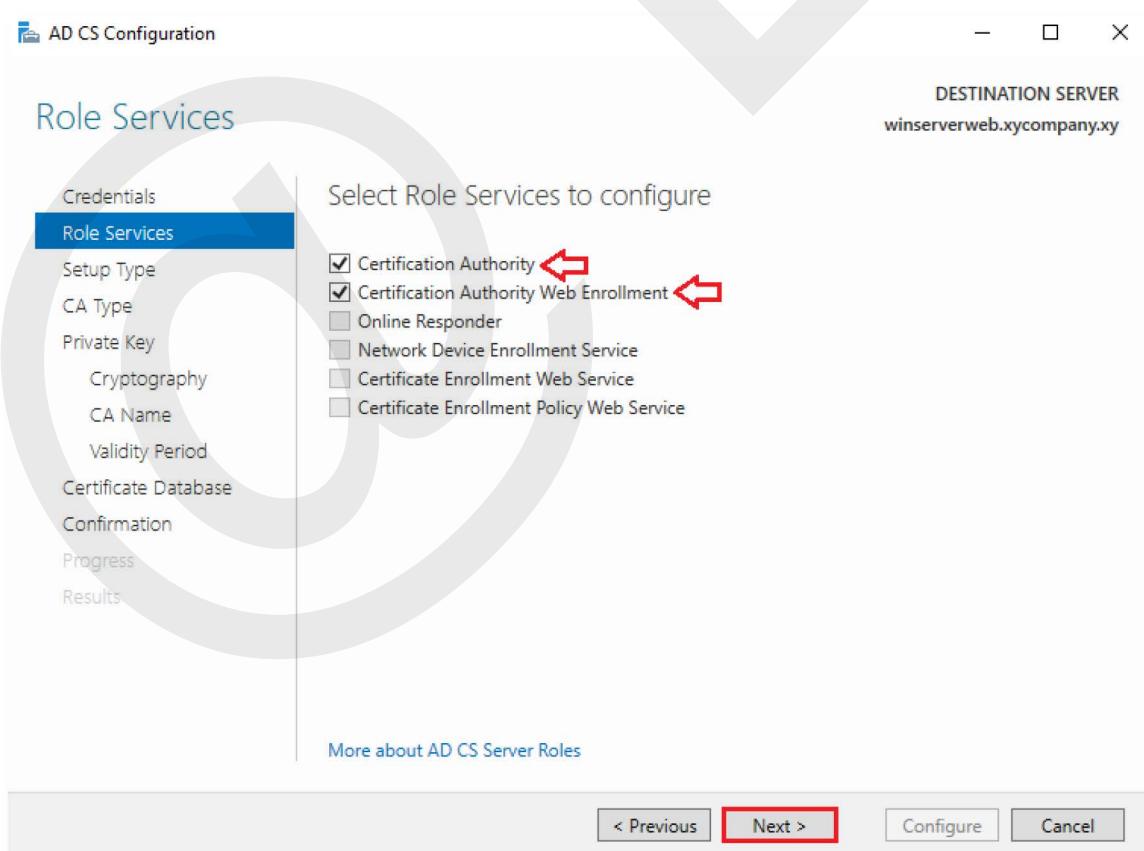
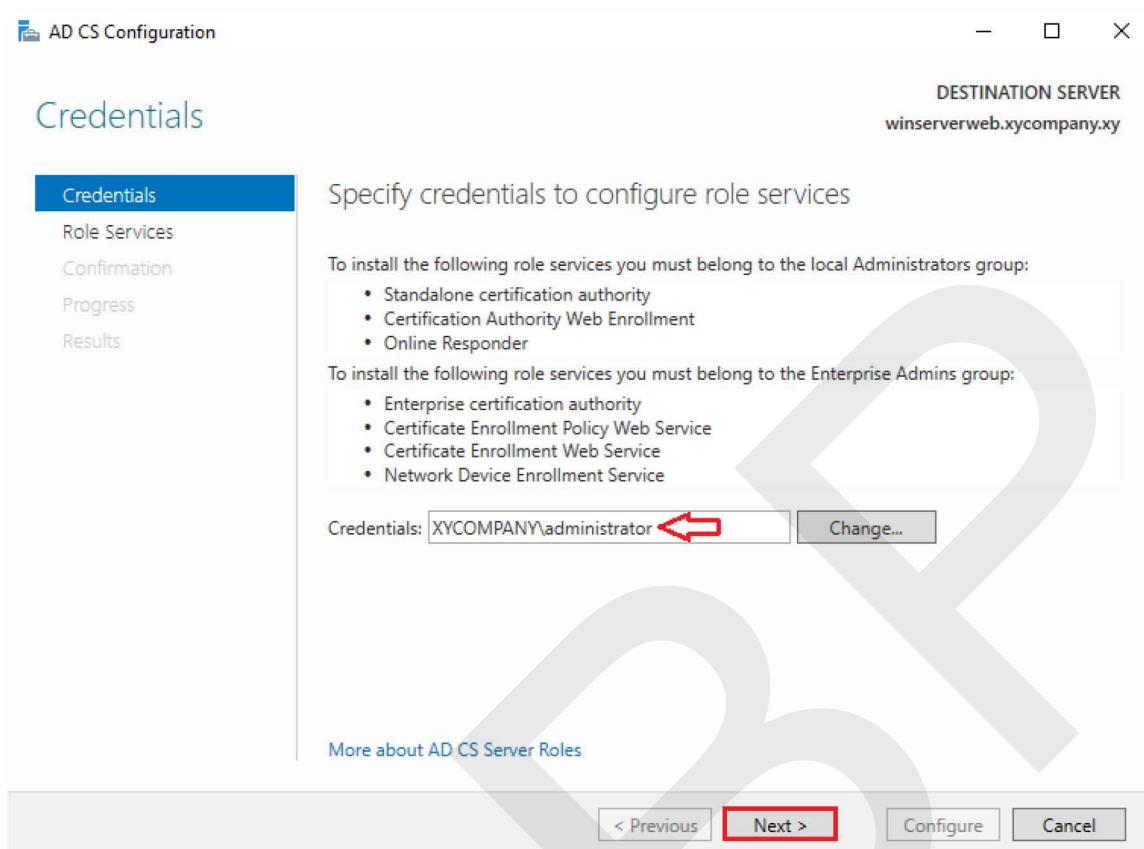


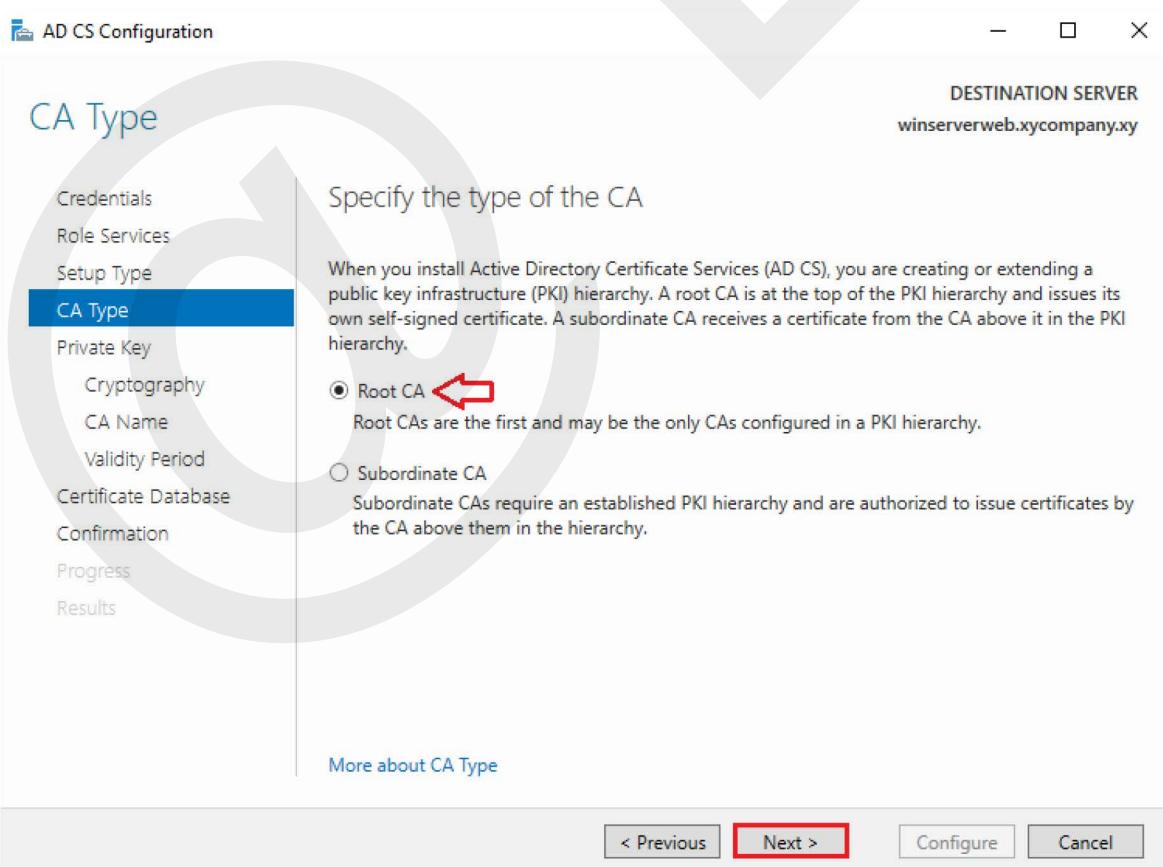
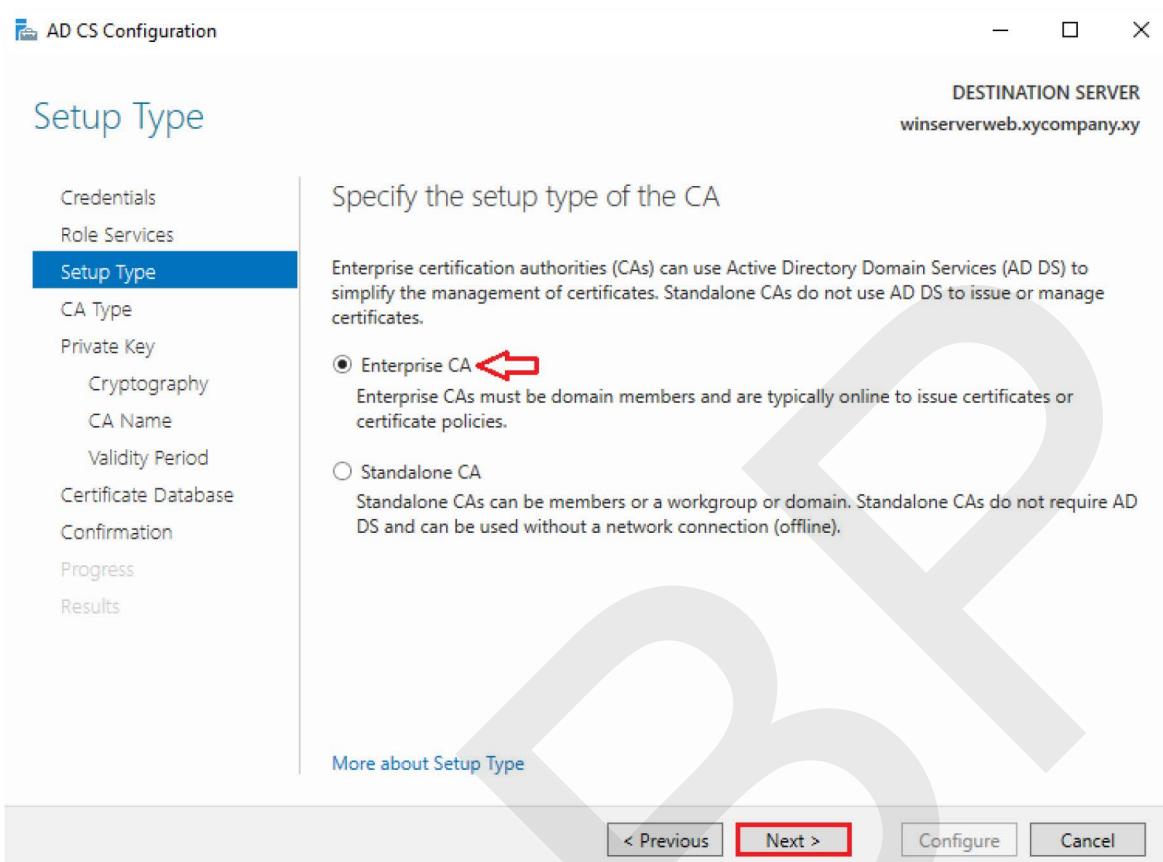


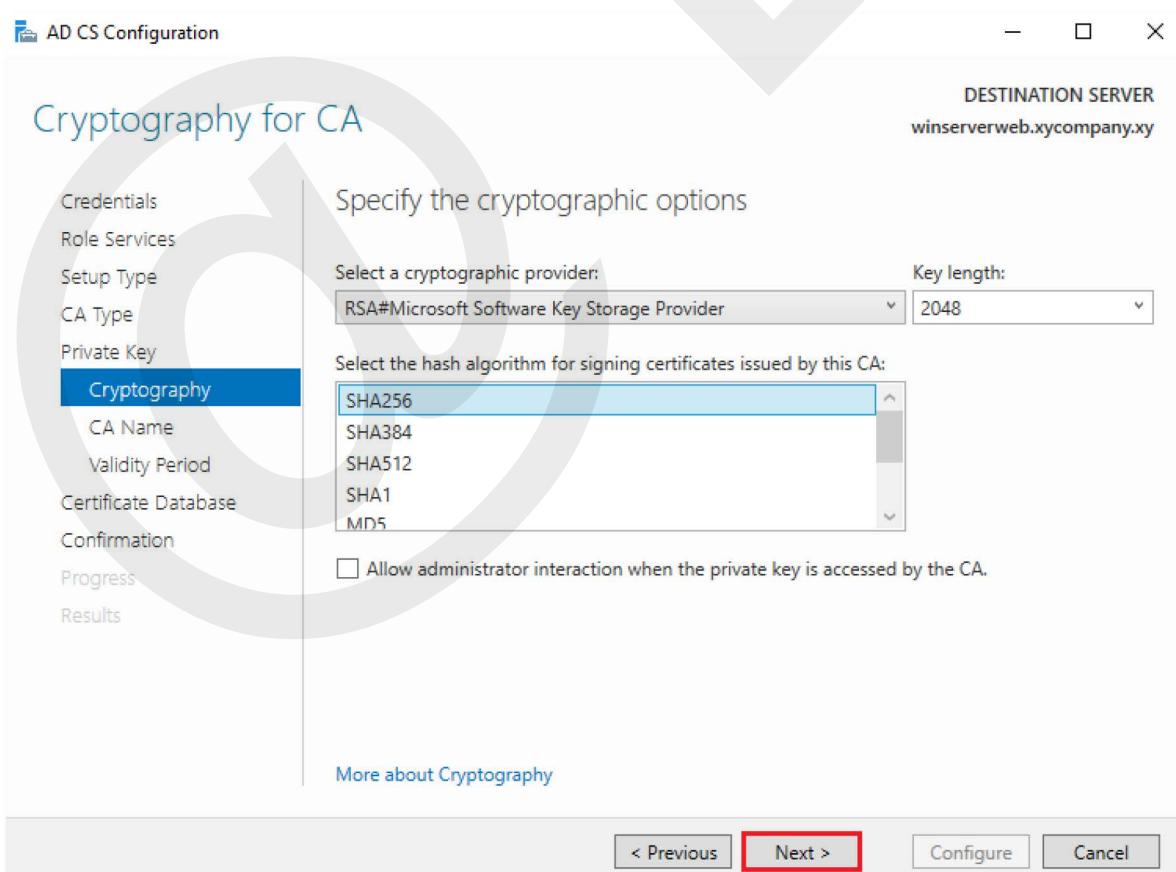
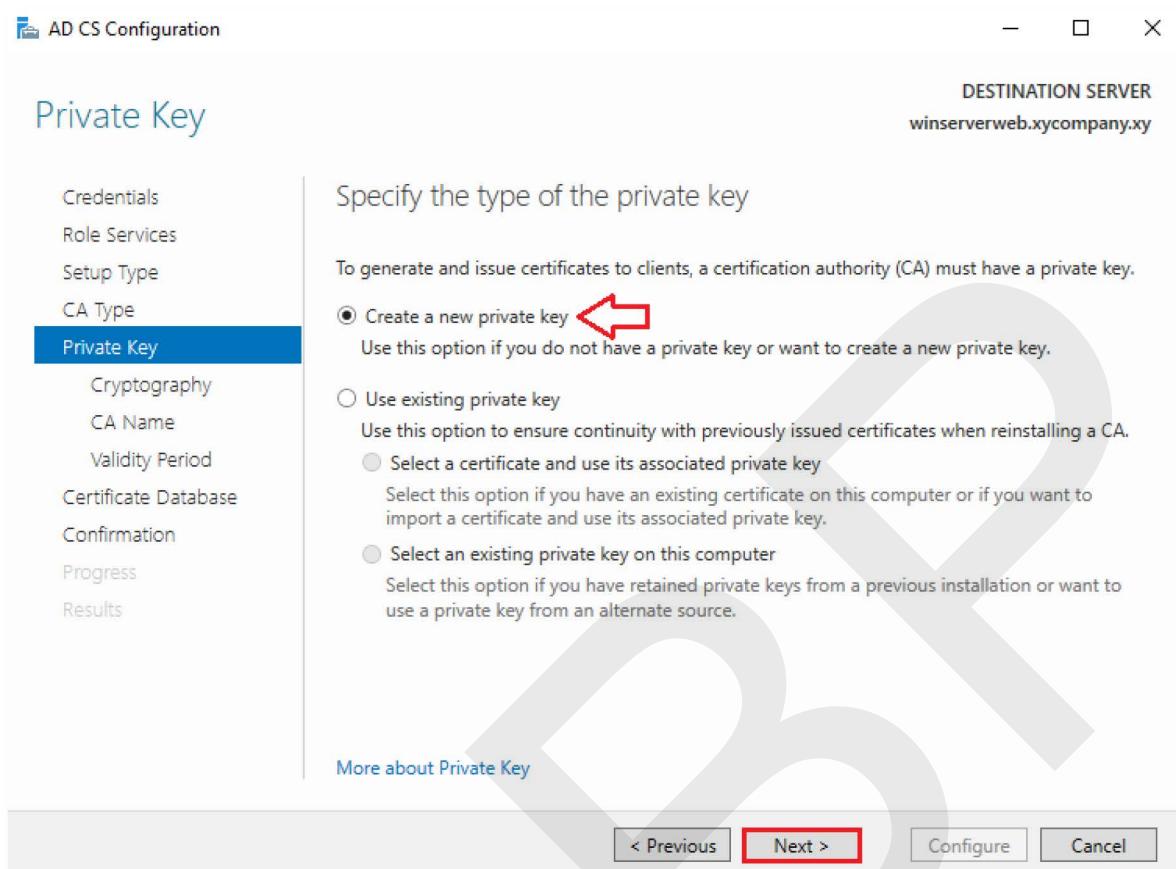


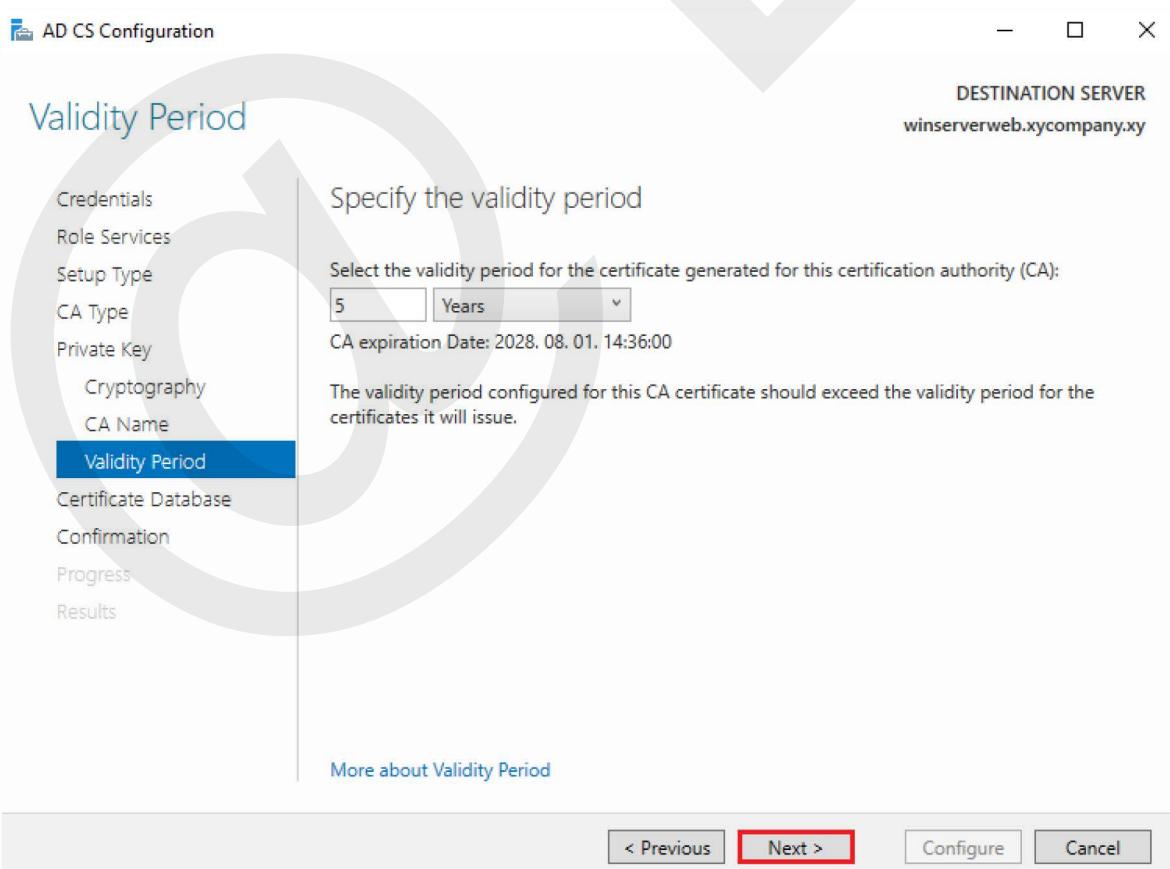
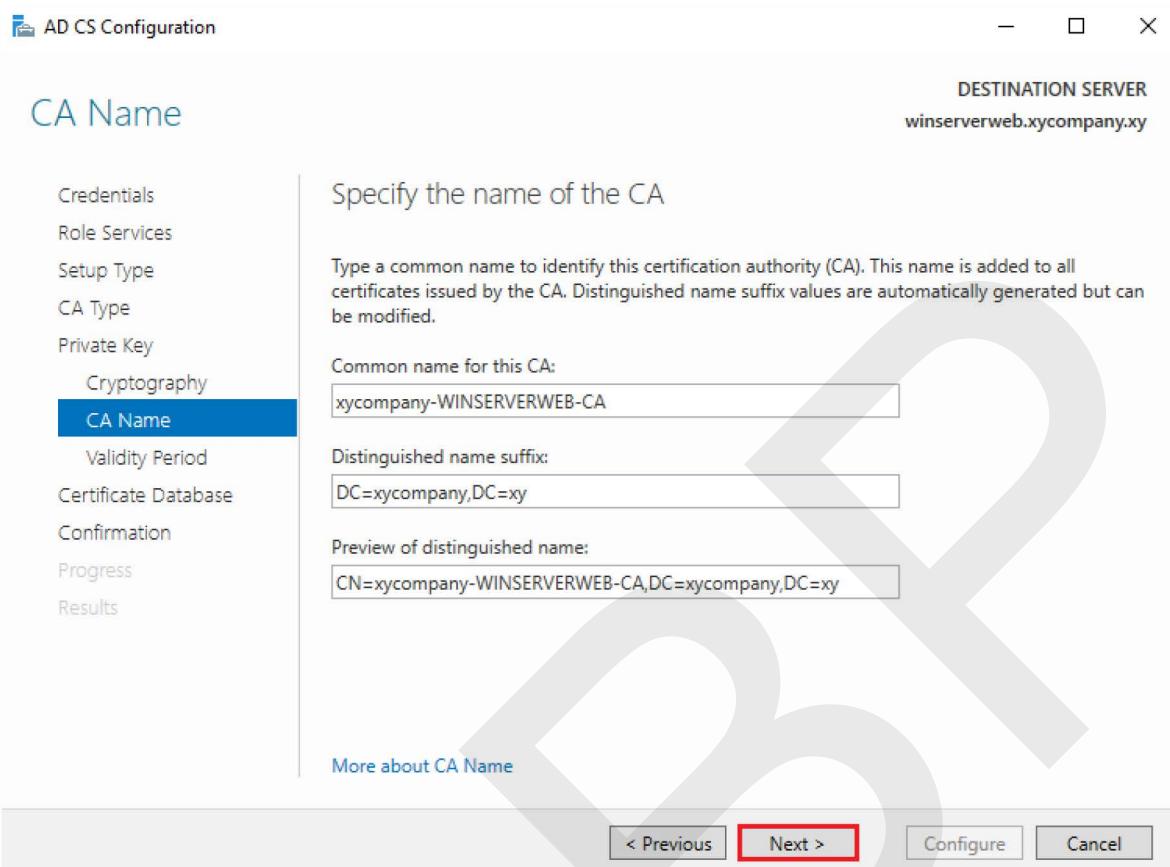


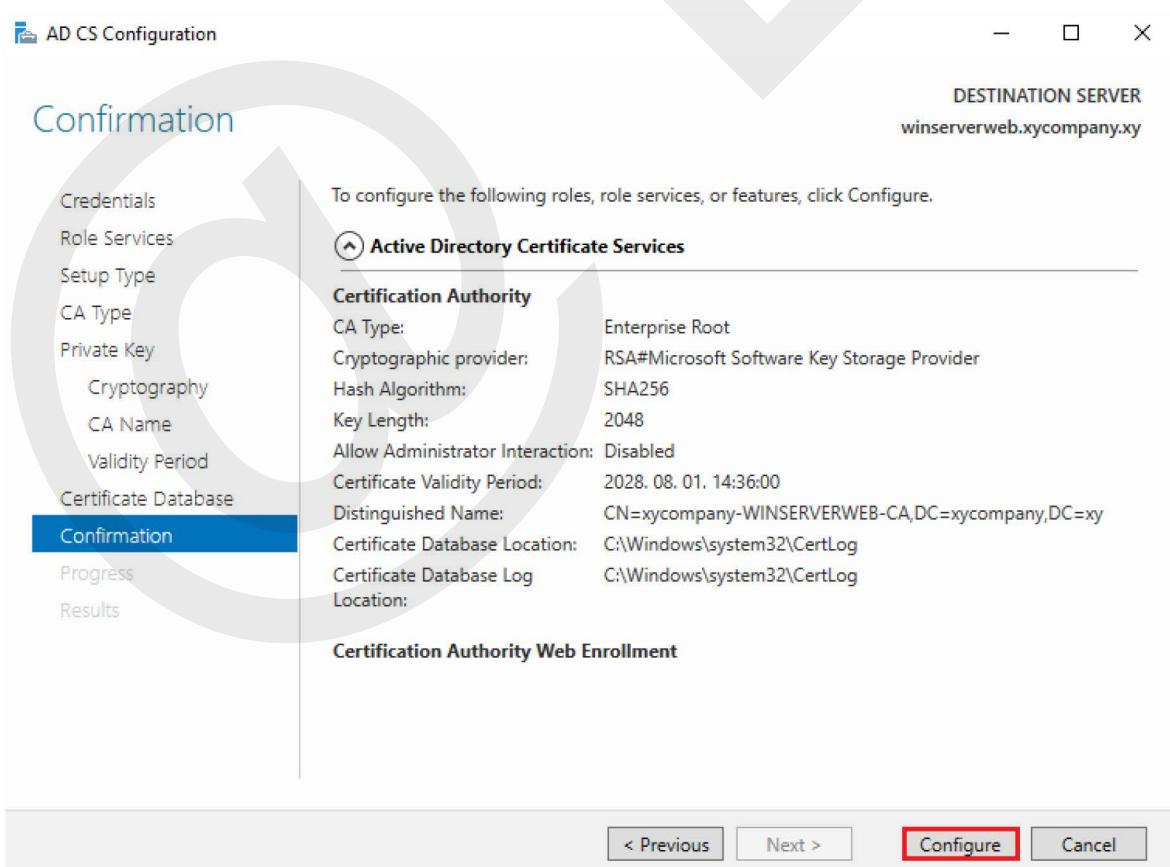
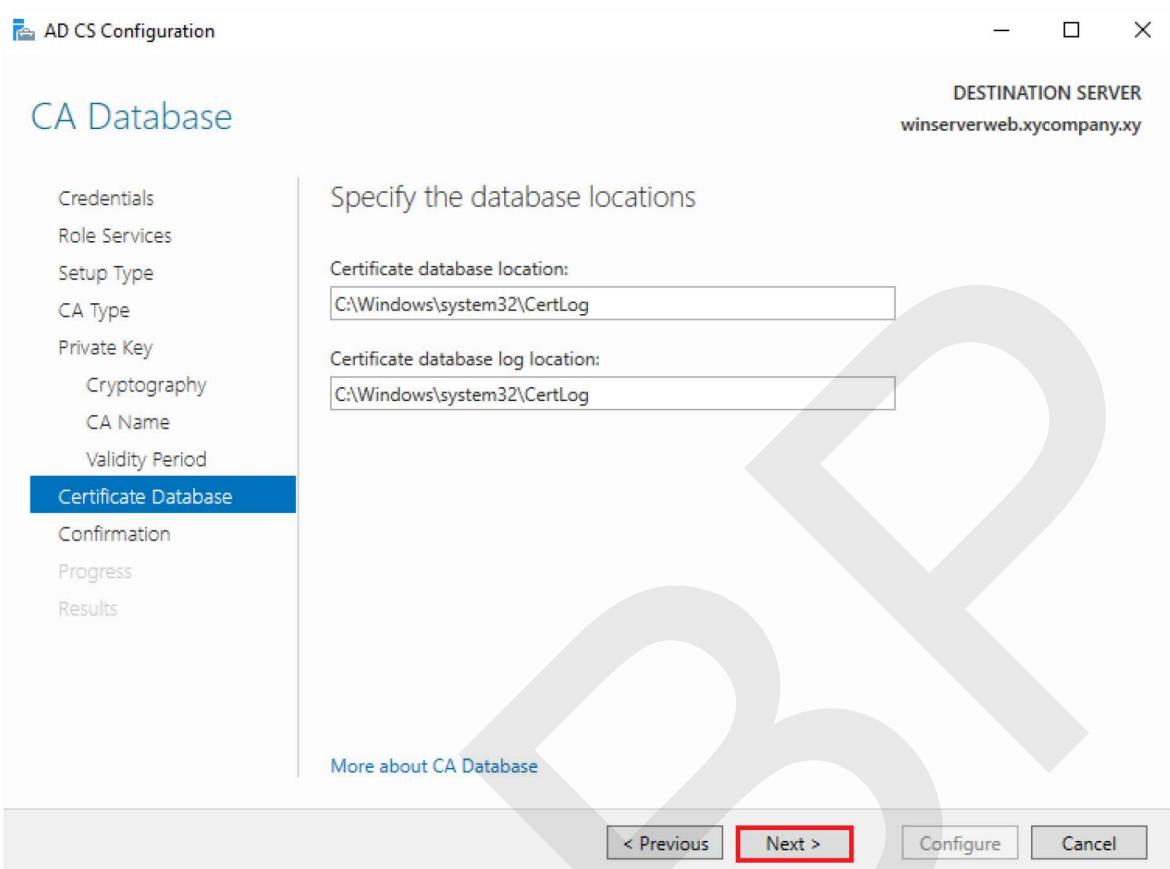


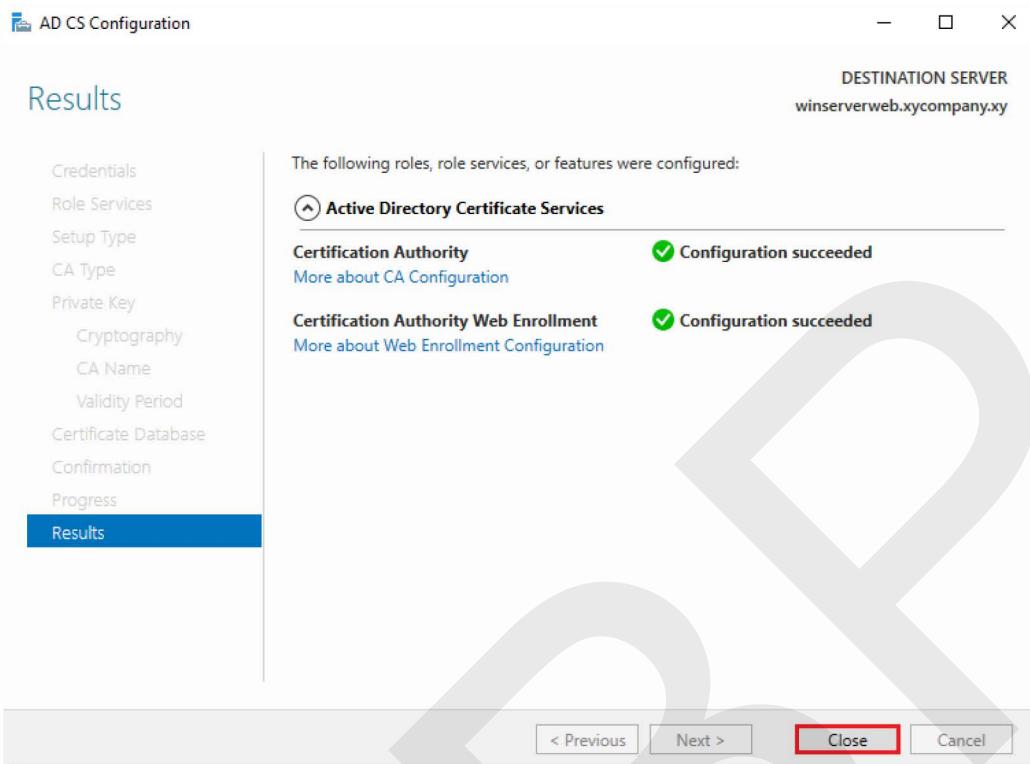






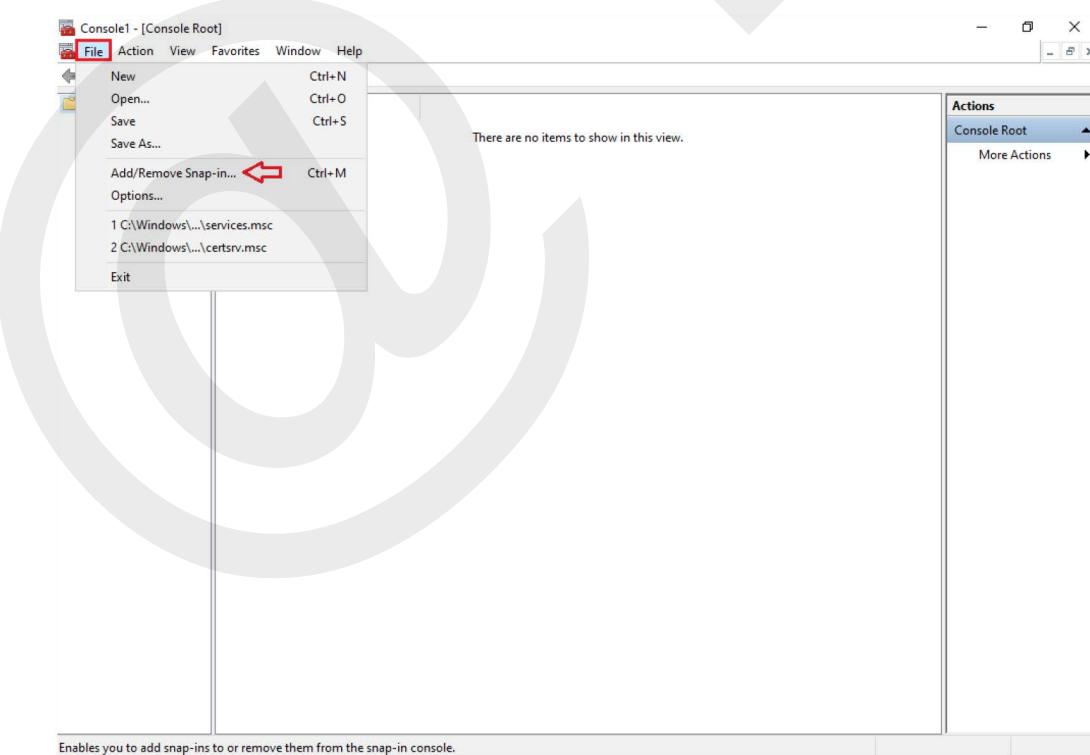


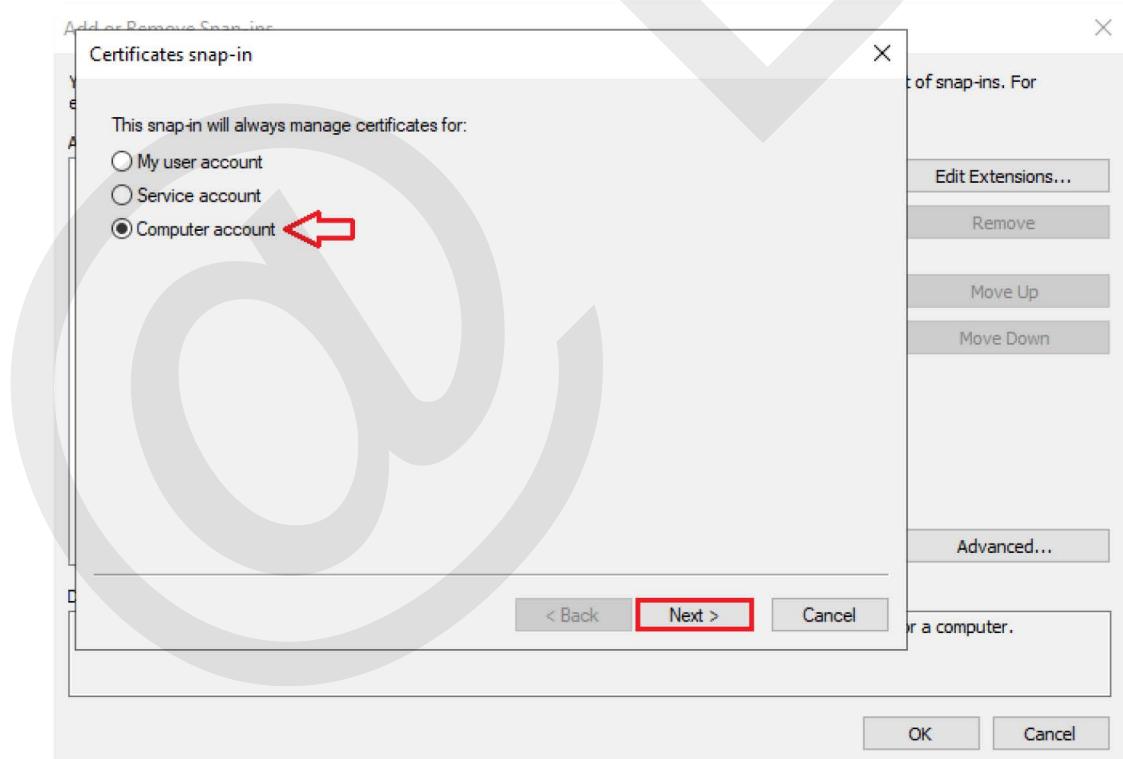
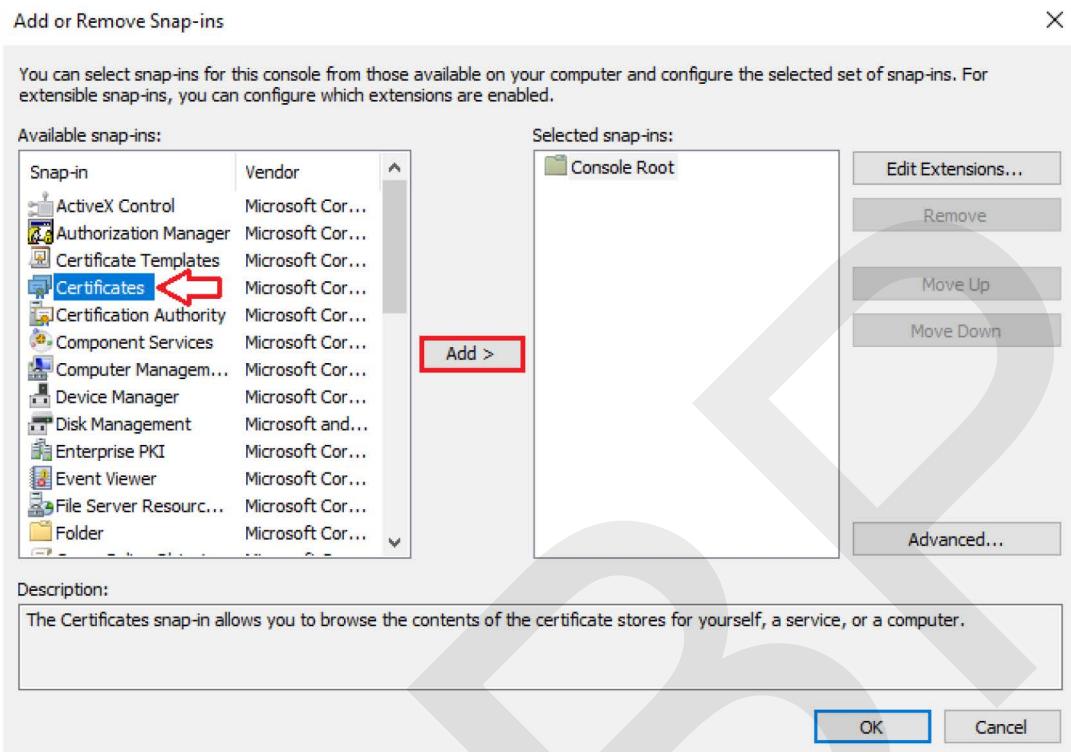


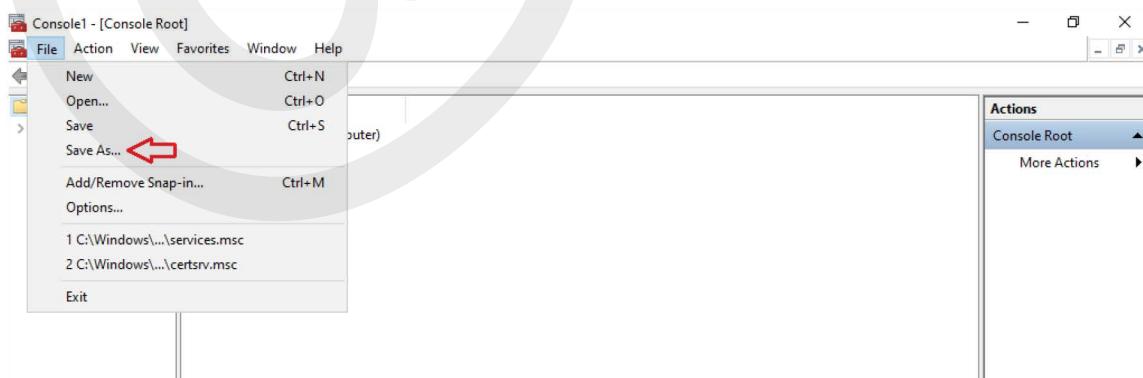
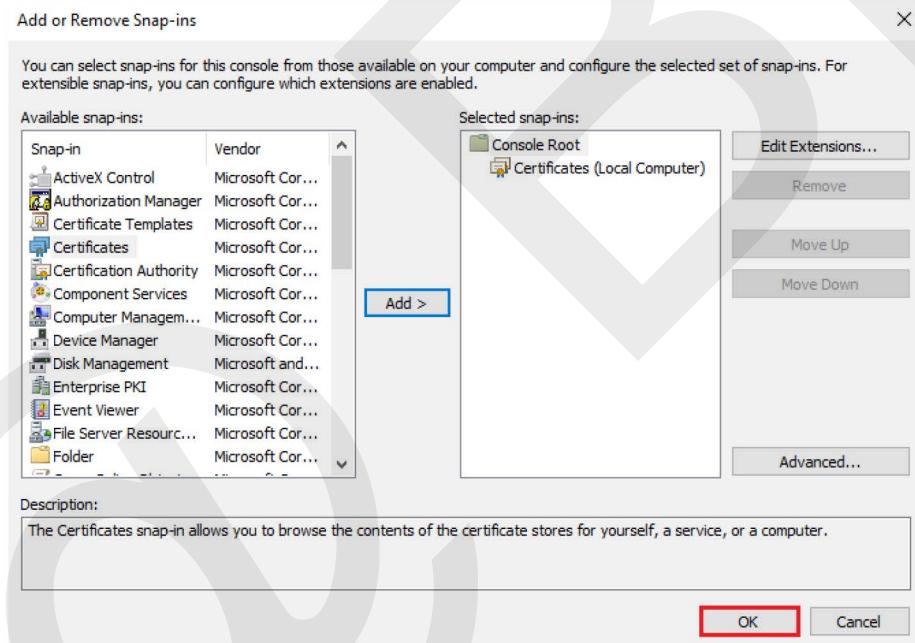
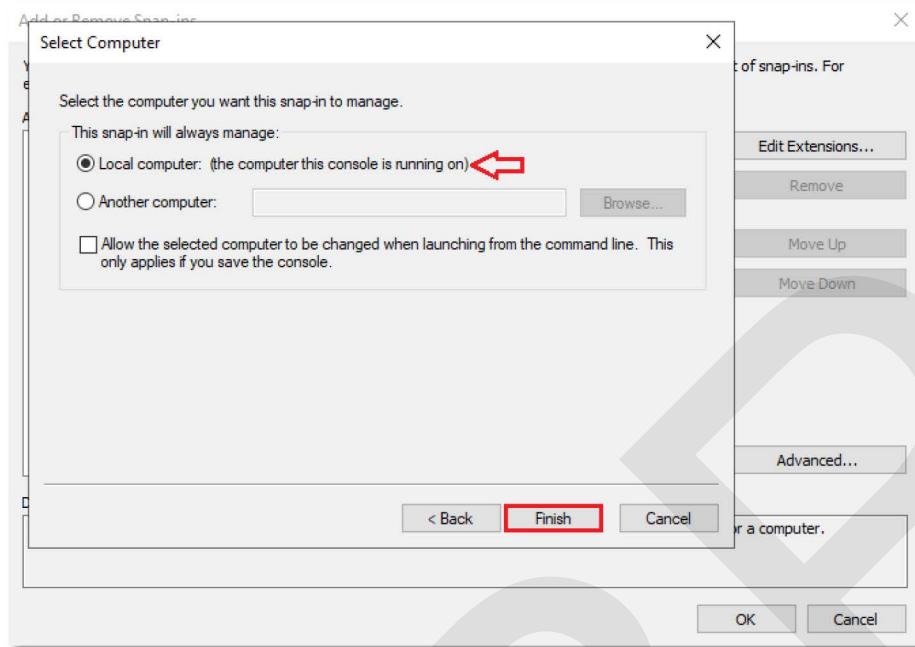


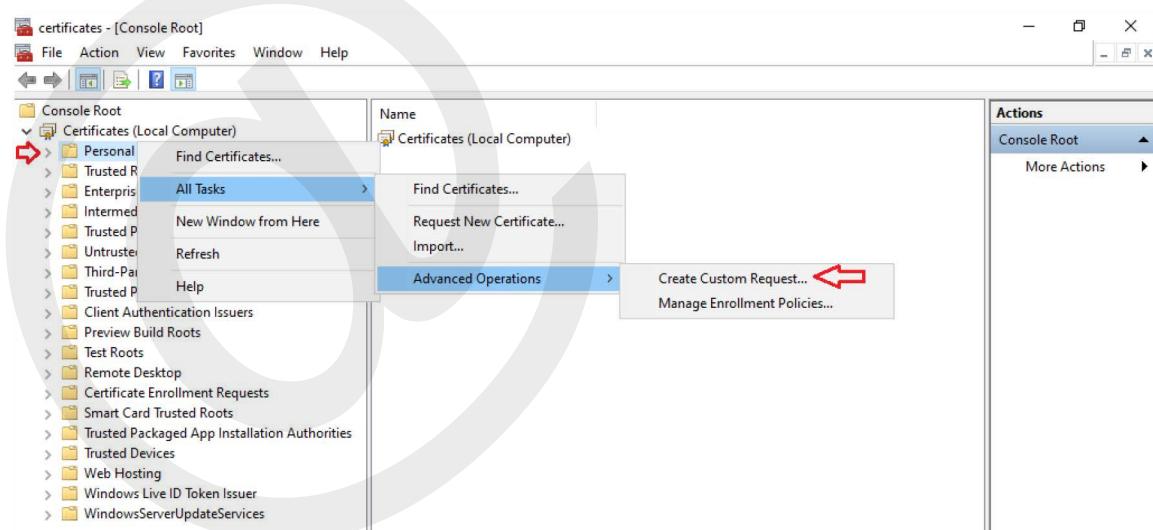
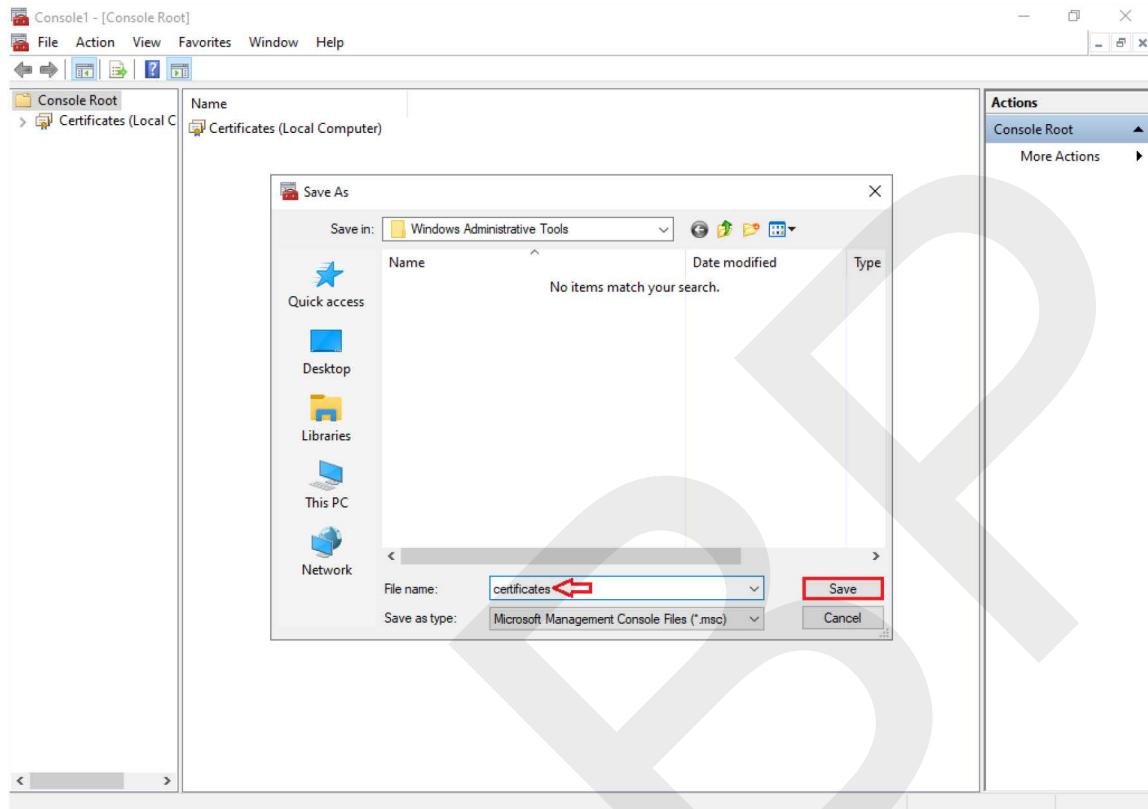
## 6.5 TLS/SSL tanúsítvány létrehozása az FTP és webszerverhez

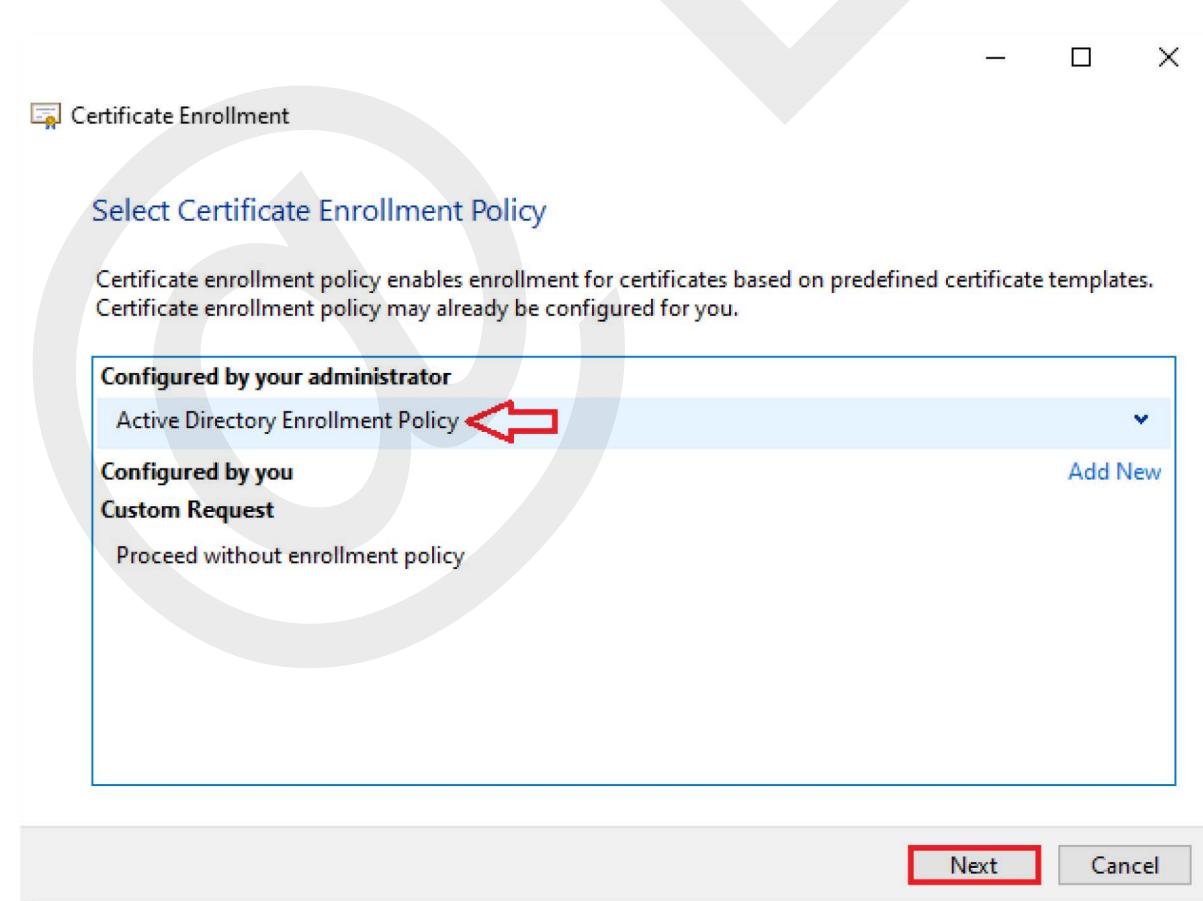
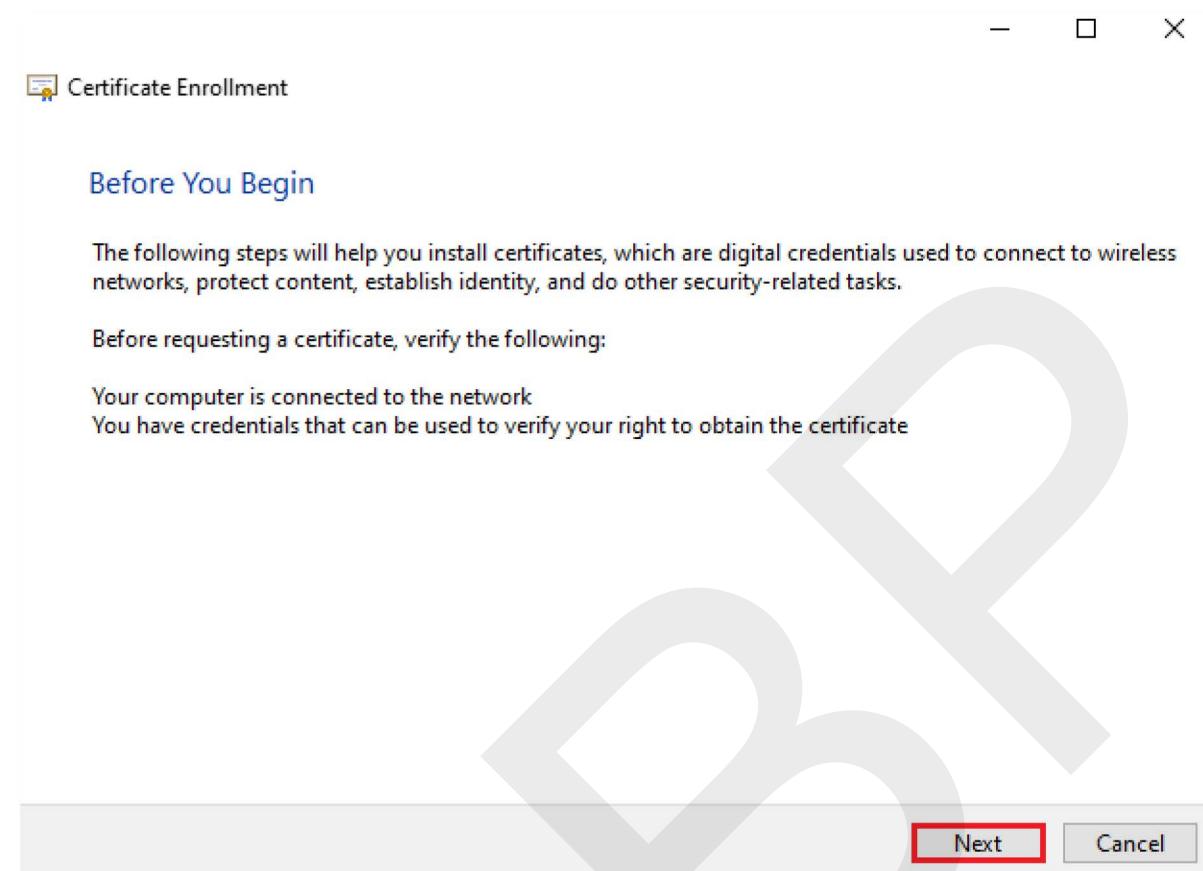
**Nyissuk meg a Microsoft Management Console-t (MMC) és végezzük el az alábbi konfigurációt:**

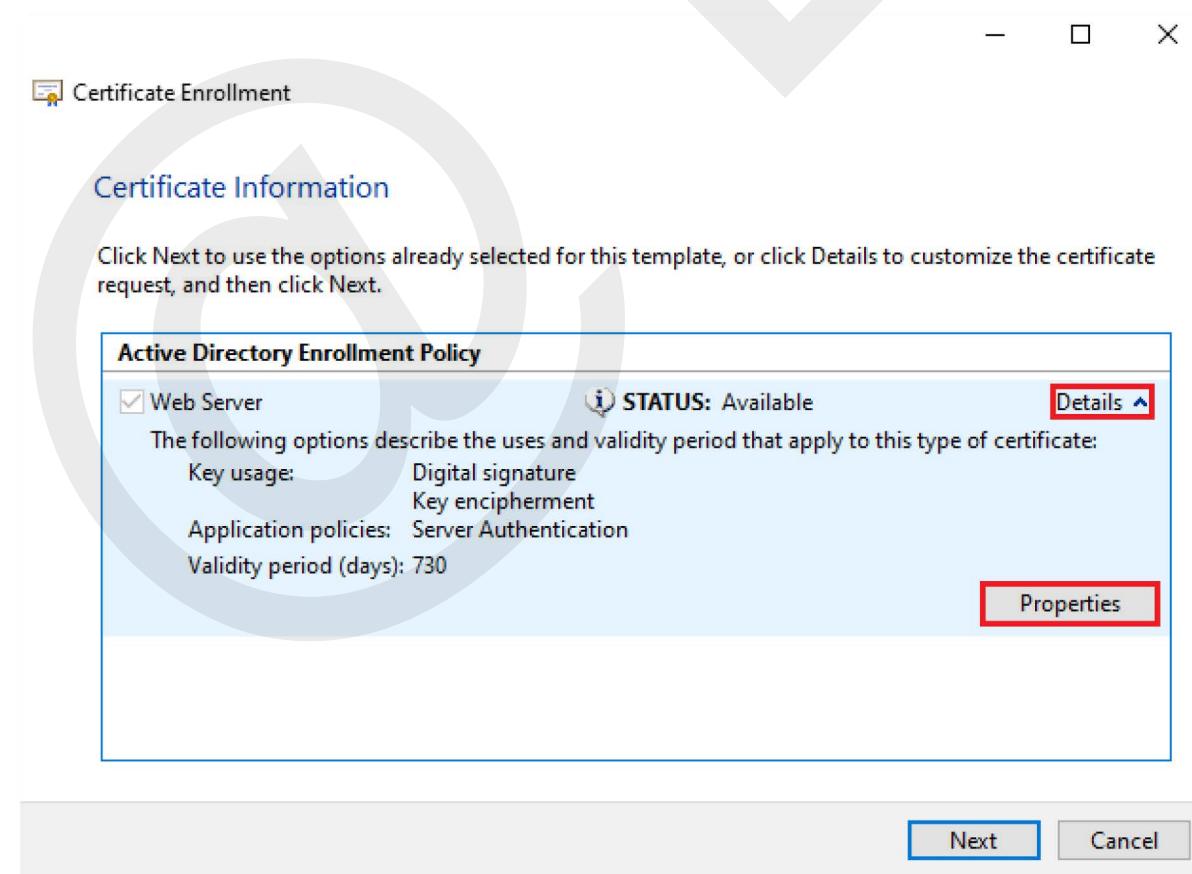
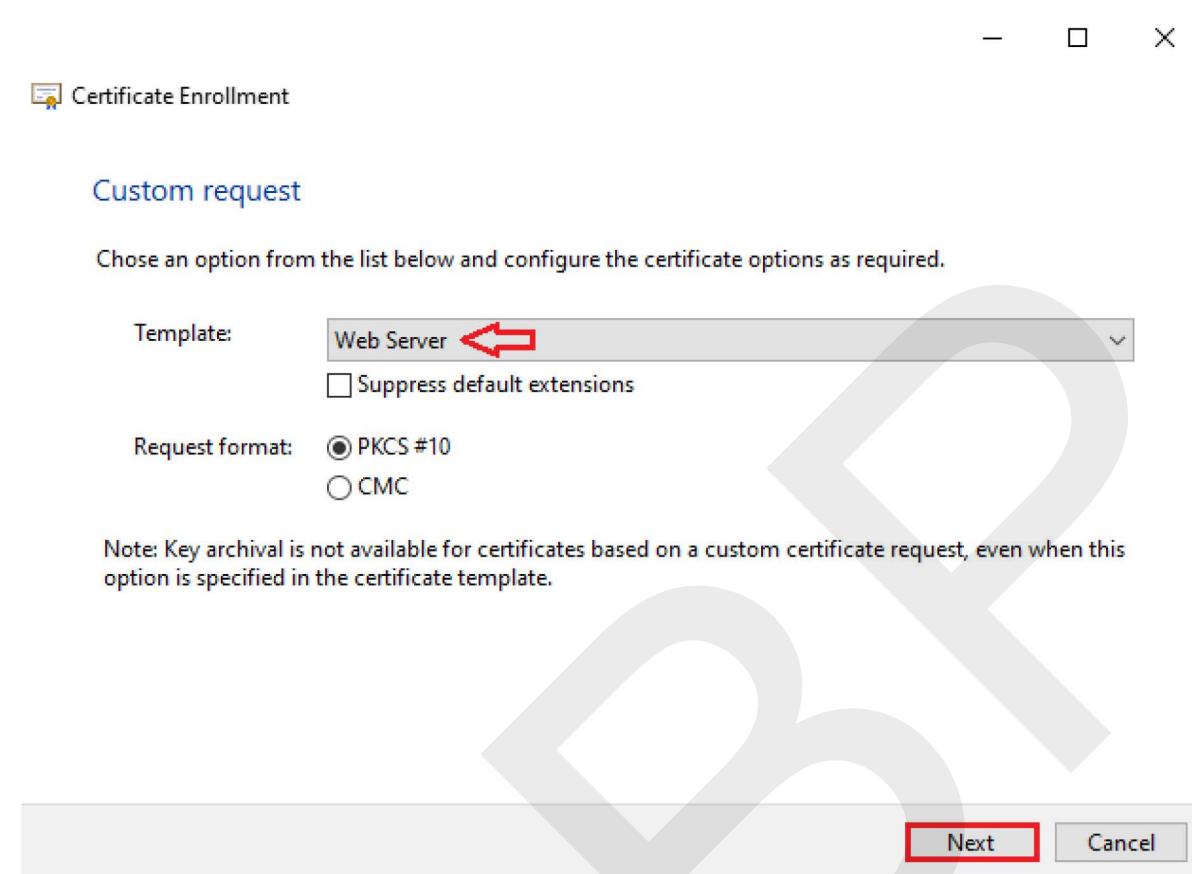


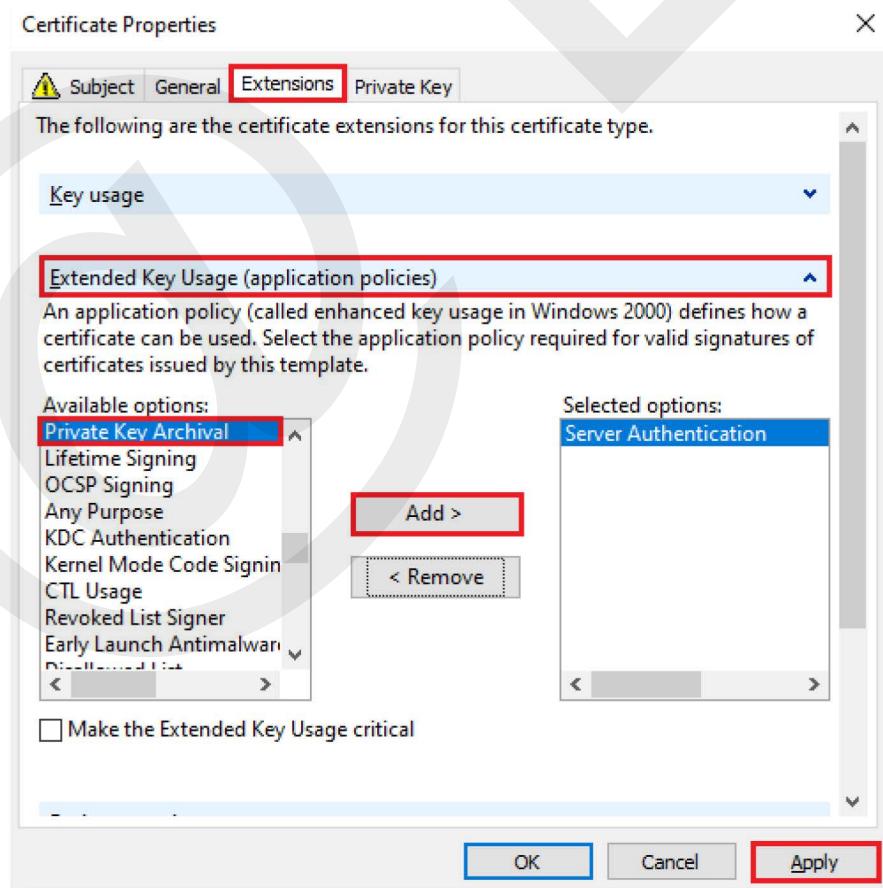
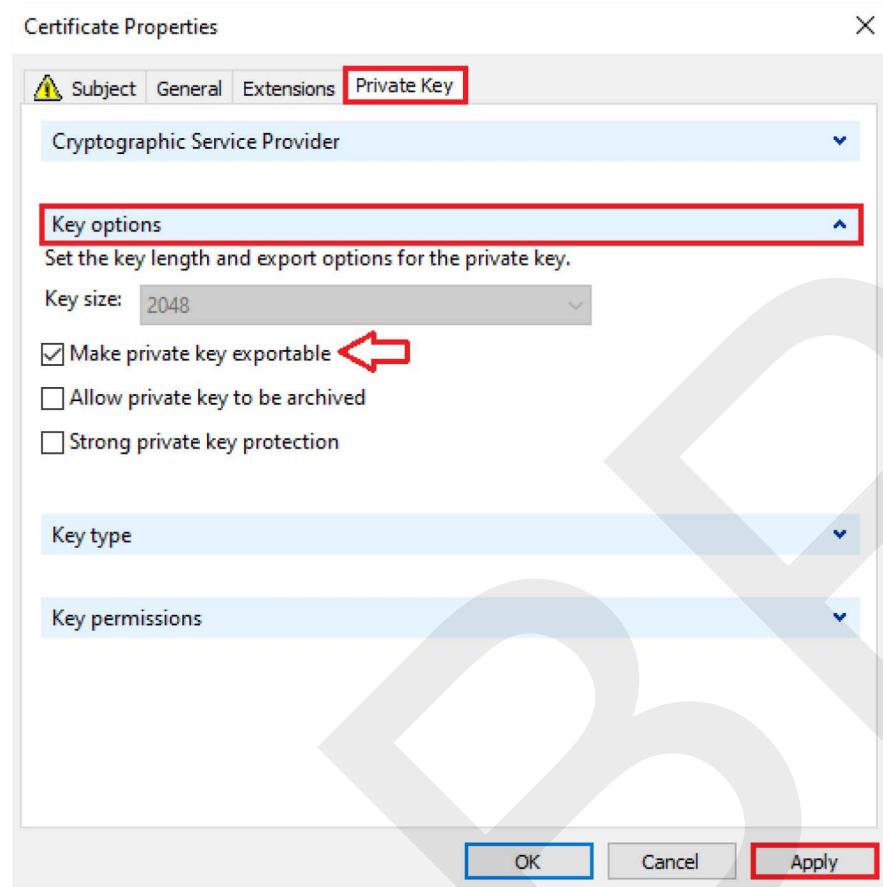


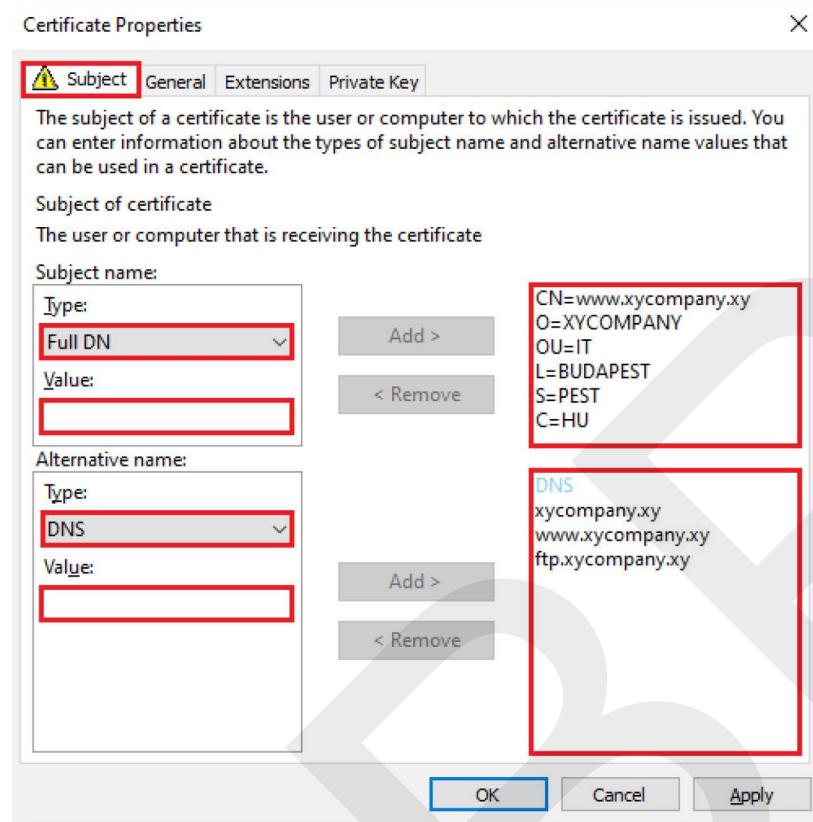




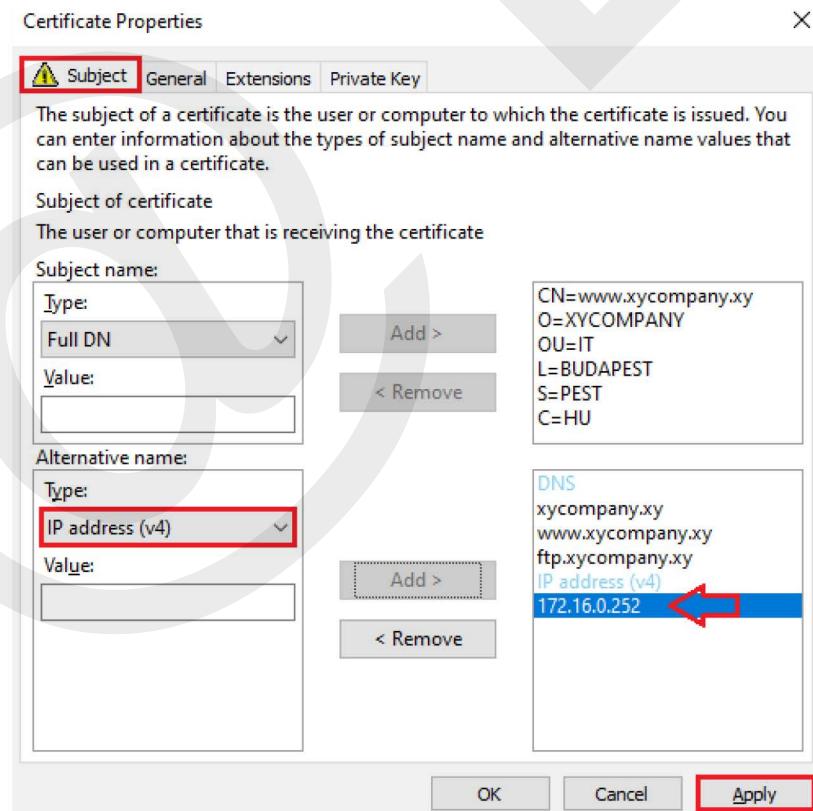




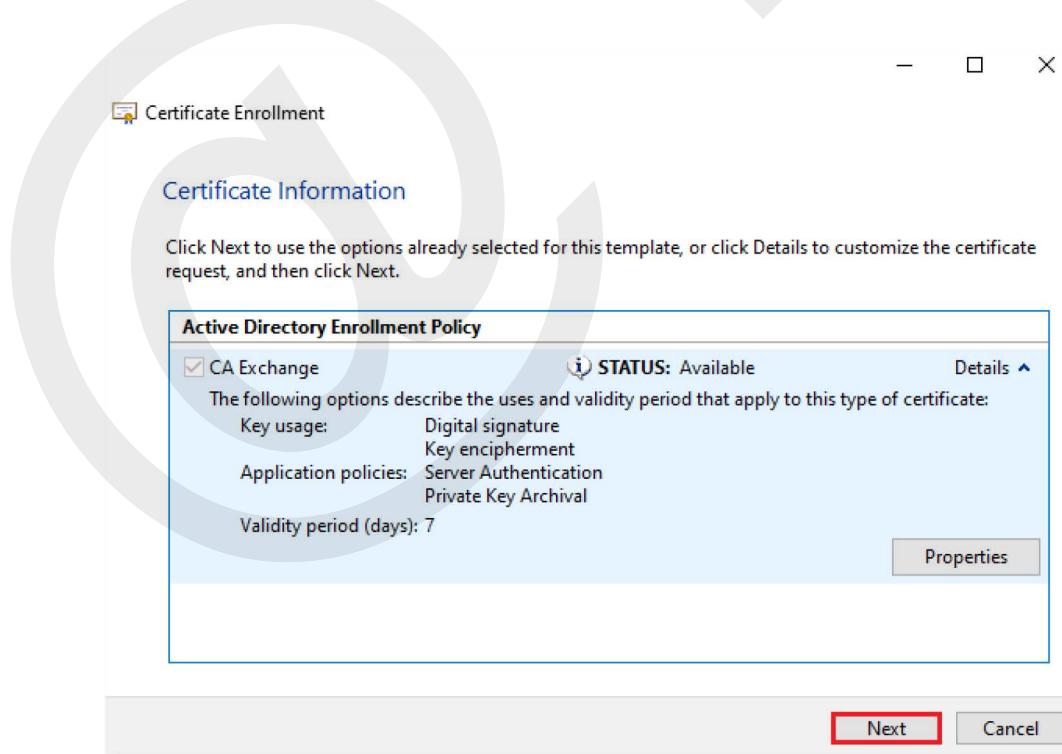
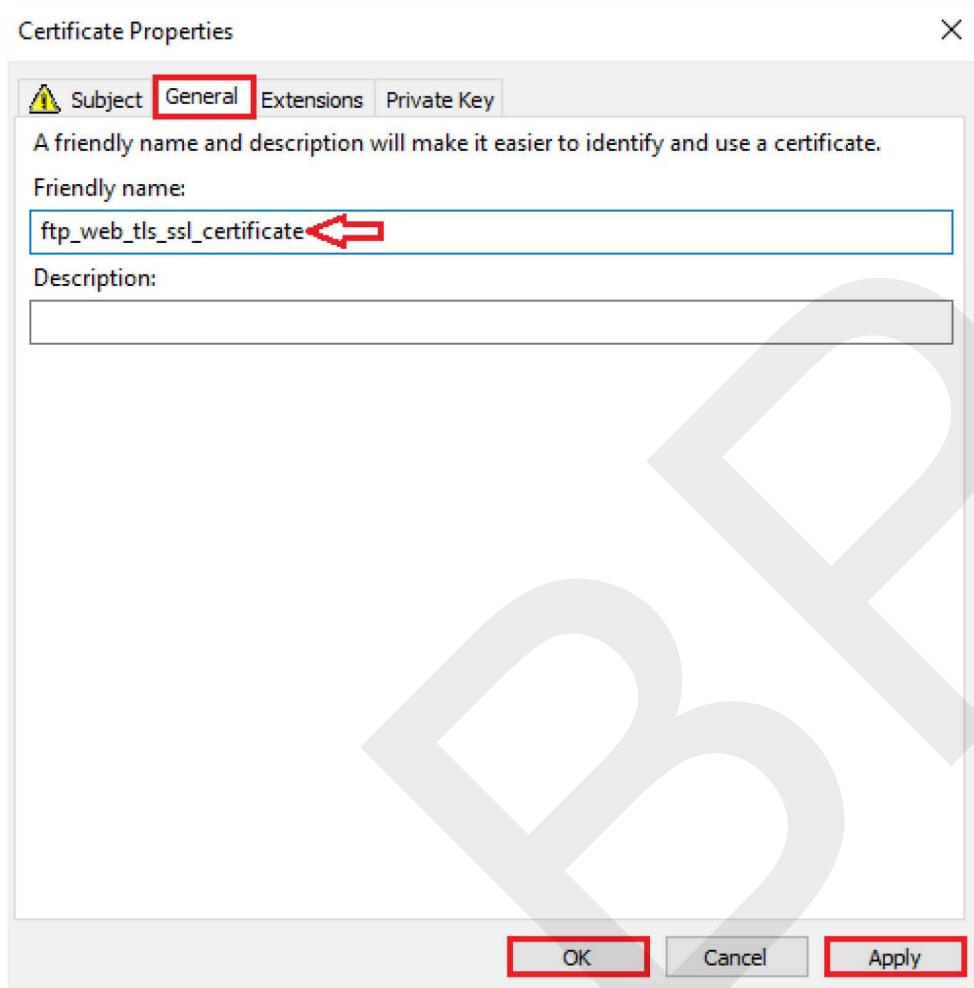


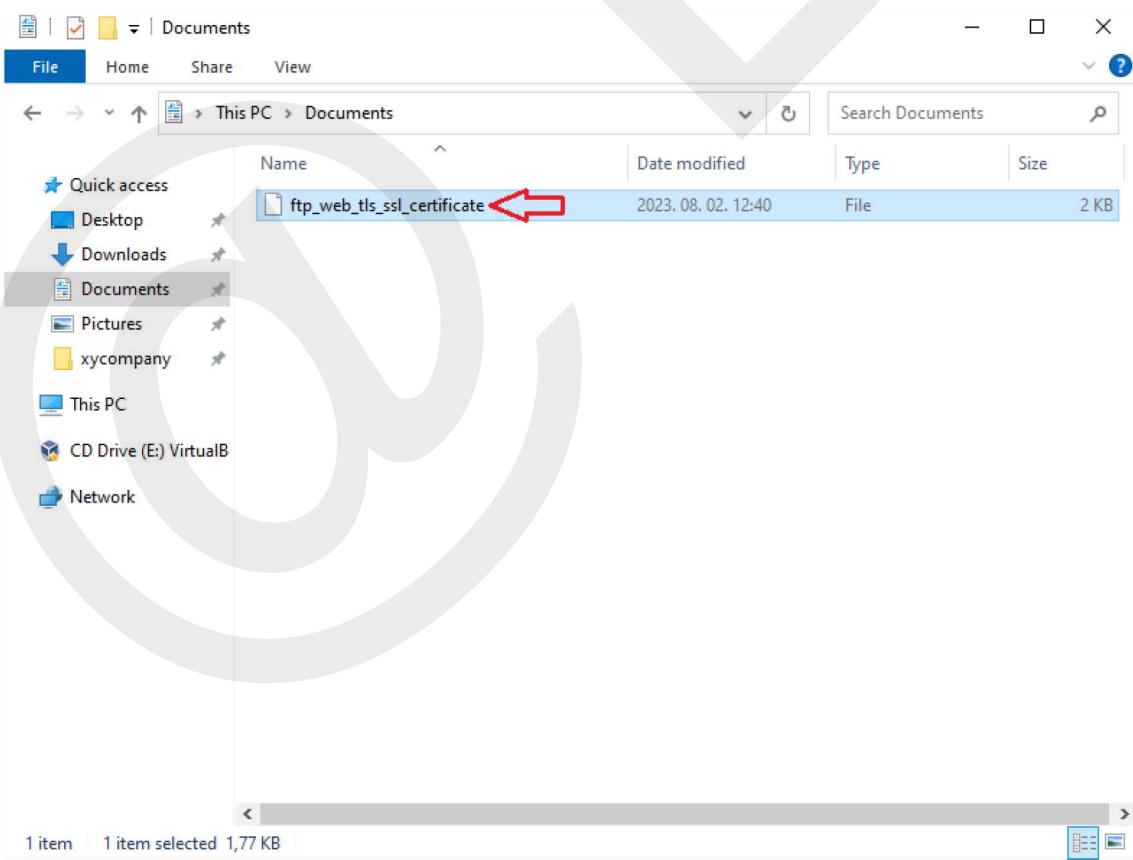
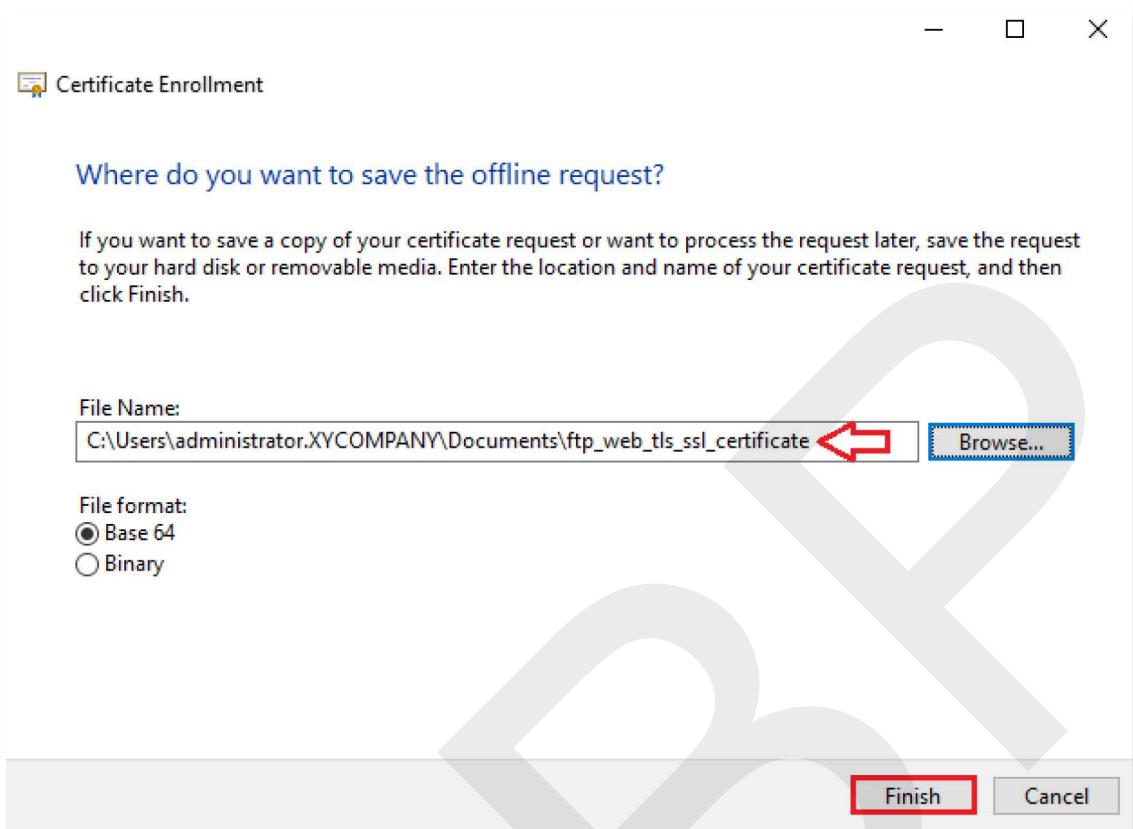


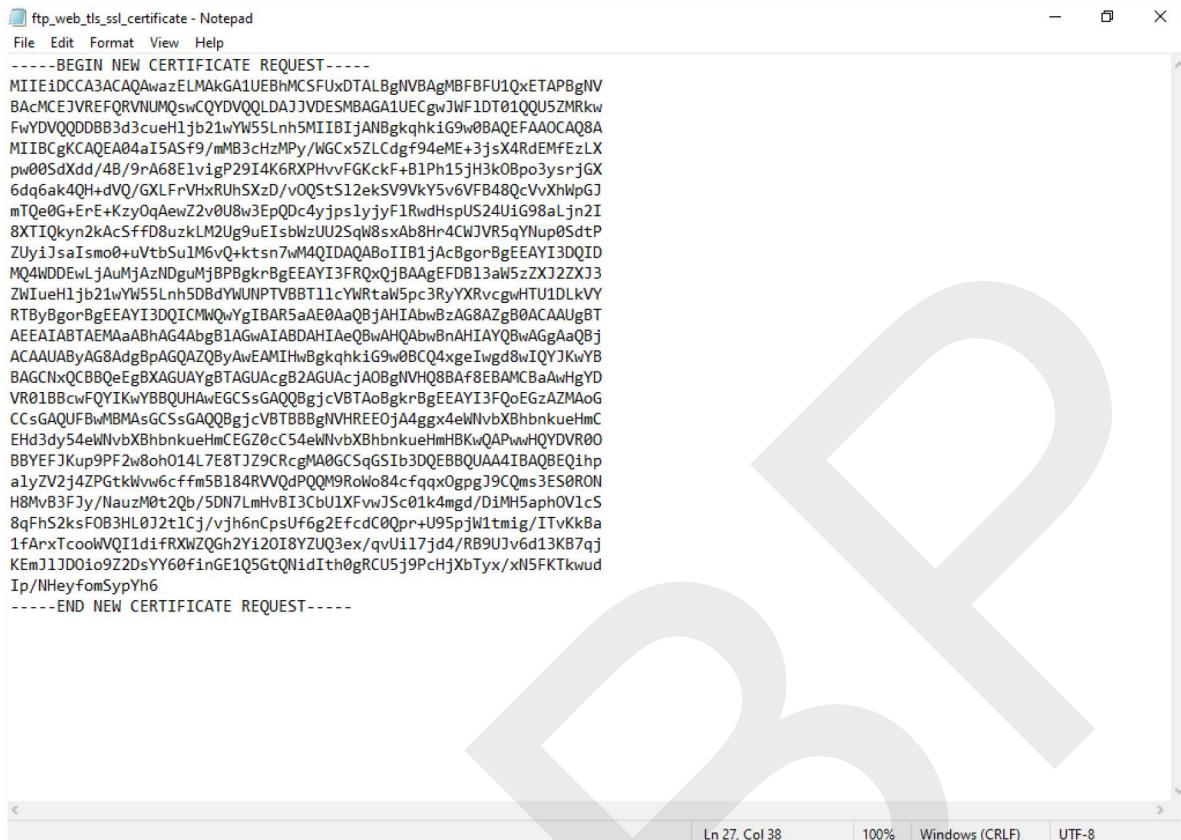
a „Value” rubrikába írjuk a paramétereket és az „Add >” gombbal áthelyezzük



a „Value” rubrikába írjuk a paramétereket és az „Add >” gombbal áthelyezzük





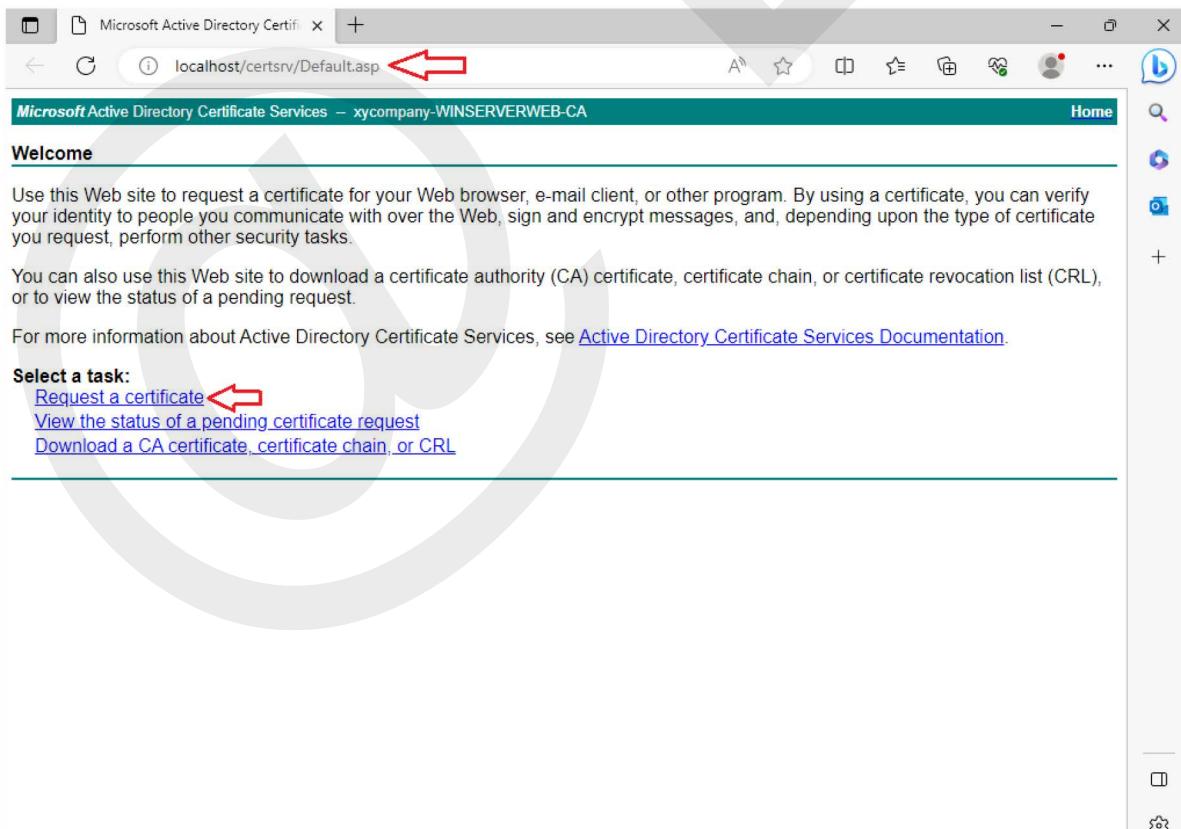


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CCsGAQUFBwMBMAgCSsGAQQBgjcvBTAoBgkrBgEEAYI3FQoEGzAZMAoG
CCsGAQUFBwMBMAgCSsGAQQBgjcvBTAoBgkrBgEEAYI3FQoEGzAZMAoG
EHd3dy54ewlNvbXhbnkuehmEGZ0cc54ewlNvbXhbnkuehmHBKwQAPwwHQYDVR00
BBYEFJKup9PF2w8oh014L7E8TJZ9CRcgMA0GCSqGSIb3DQEBBQUA4IBAQBEQihp
alyZV2j4ZPGtkLww6cfm5B184RVV0dPQ0M9Roh84cfqqx0gpgj9Cms3ES0RON
H8MvB3FJy/NauzH0t2Qb/5DN7LmHvB13CbU1XFvwJS01k4mgd/D1MH5aph0V1cS
8qFhS2ksFOB3HL012t1Cj/vjh6nCpsUF6g2fc0Qpr+U95pjW1tmig/ITvKkBa
1fArxTcoolWQI1difRXWZQGh2Y120I8YZUQ3ex/qvu117jd4/RB9UJv6d13KB7qj
KEm11JD0io9Z2DsYY60finGE1Q5GtQnidIth0gRCU5j9PcHjXbTyx/xNSFKTkwud
Ip/NHeyfomSypYh6
-----END NEW CERTIFICATE REQUEST-----

```

nyissuk meg a tanúsítvány kérelem fájlt Notepad-del és másoljuk a tartalmát vágólapra



Microsoft Active Directory Certificate Services – xycompany-WINSERVERWEB-CA

Welcome

Use this Web site to request a certificate for your Web browser, e-mail client, or other program. By using a certificate, you can verify your identity to people you communicate with over the Web, sign and encrypt messages, and, depending upon the type of certificate you request, perform other security tasks.

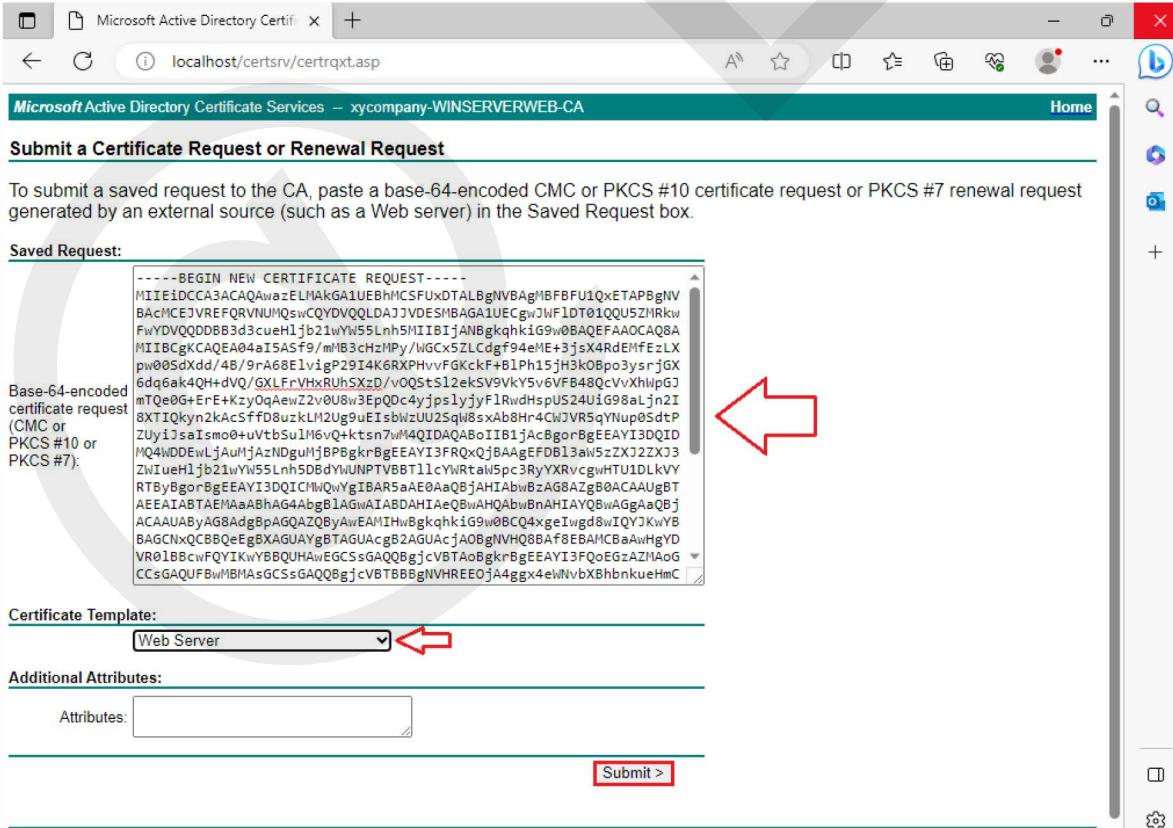
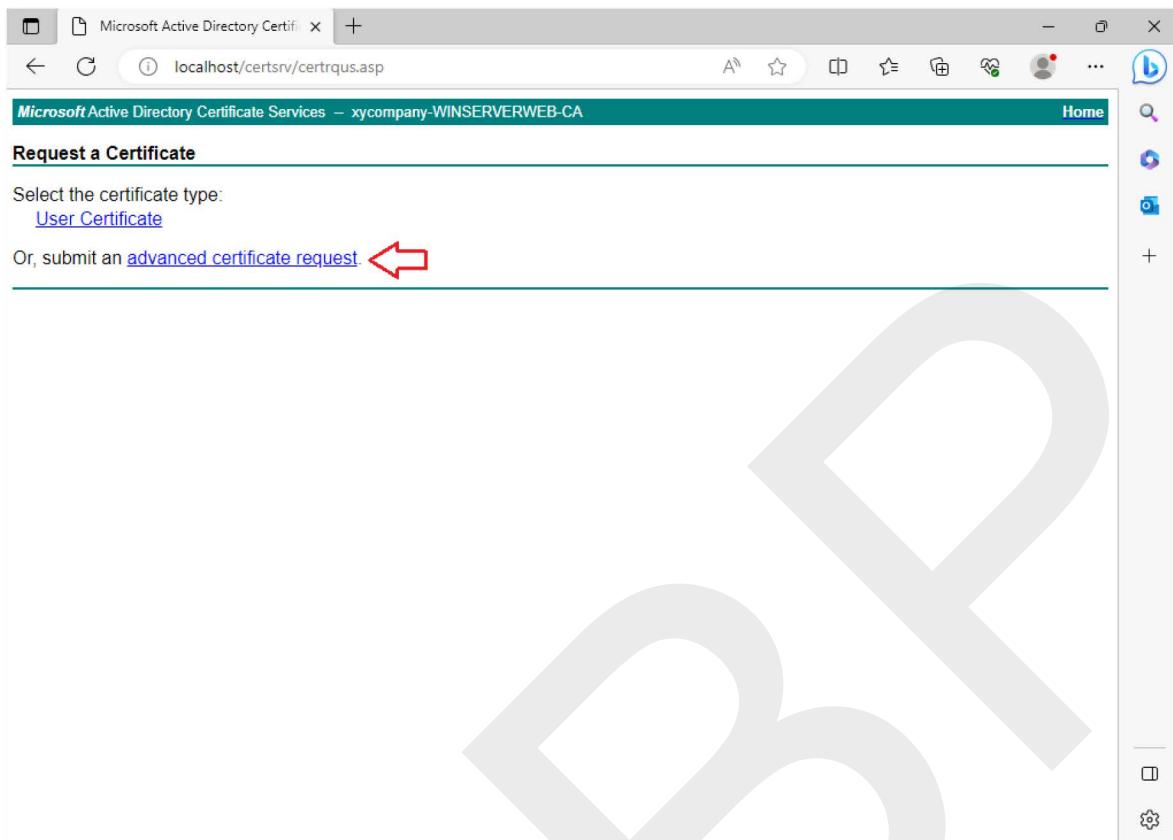
You can also use this Web site to download a certificate authority (CA) certificate, certificate chain, or certificate revocation list (CRL), or to view the status of a pending request.

For more information about Active Directory Certificate Services, see [Active Directory Certificate Services Documentation](#).

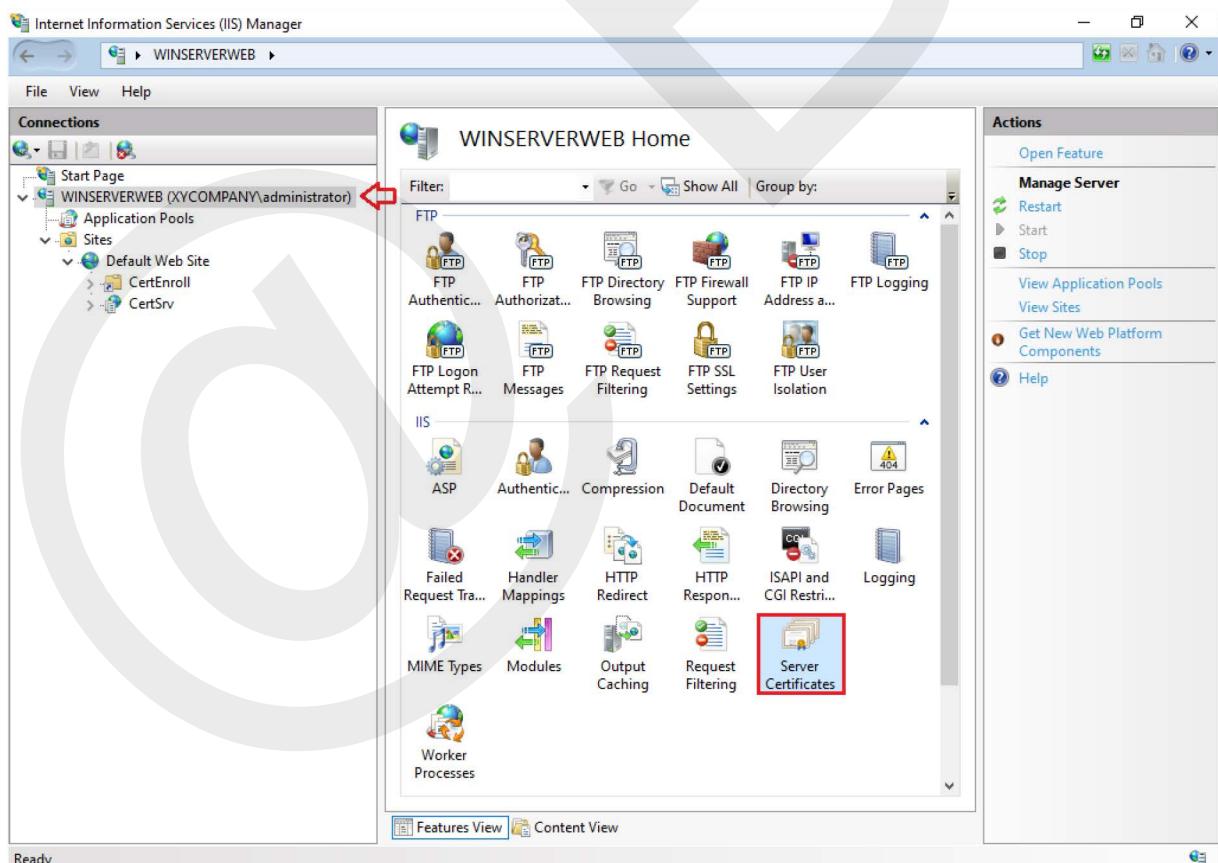
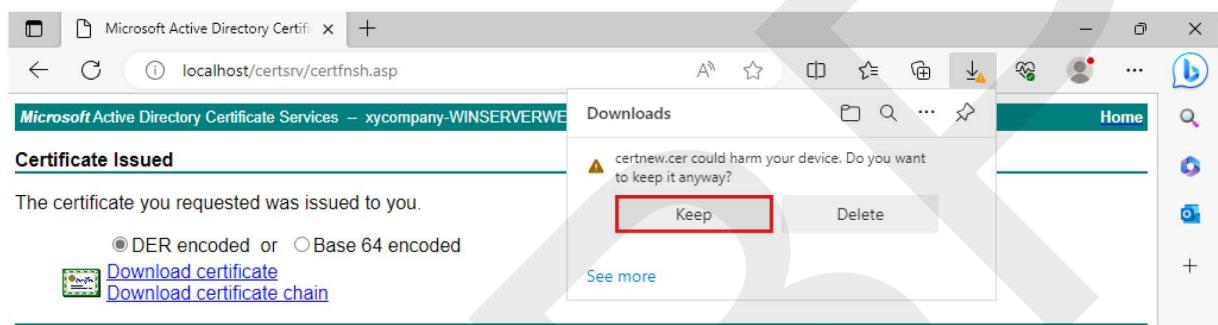
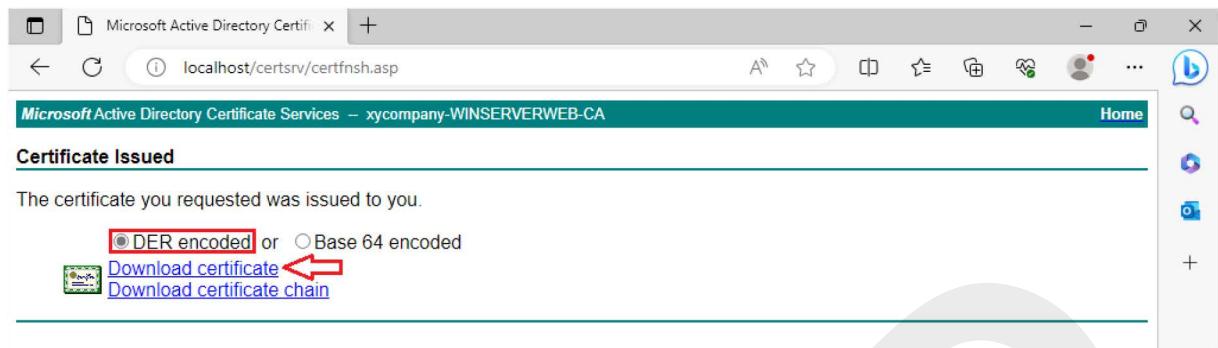
**Select a task:**

- [Request a certificate](#) (highlighted with a red arrow)
- [View the status of a pending certificate request](#)
- [Download a CA certificate, certificate chain, or CRL](#)

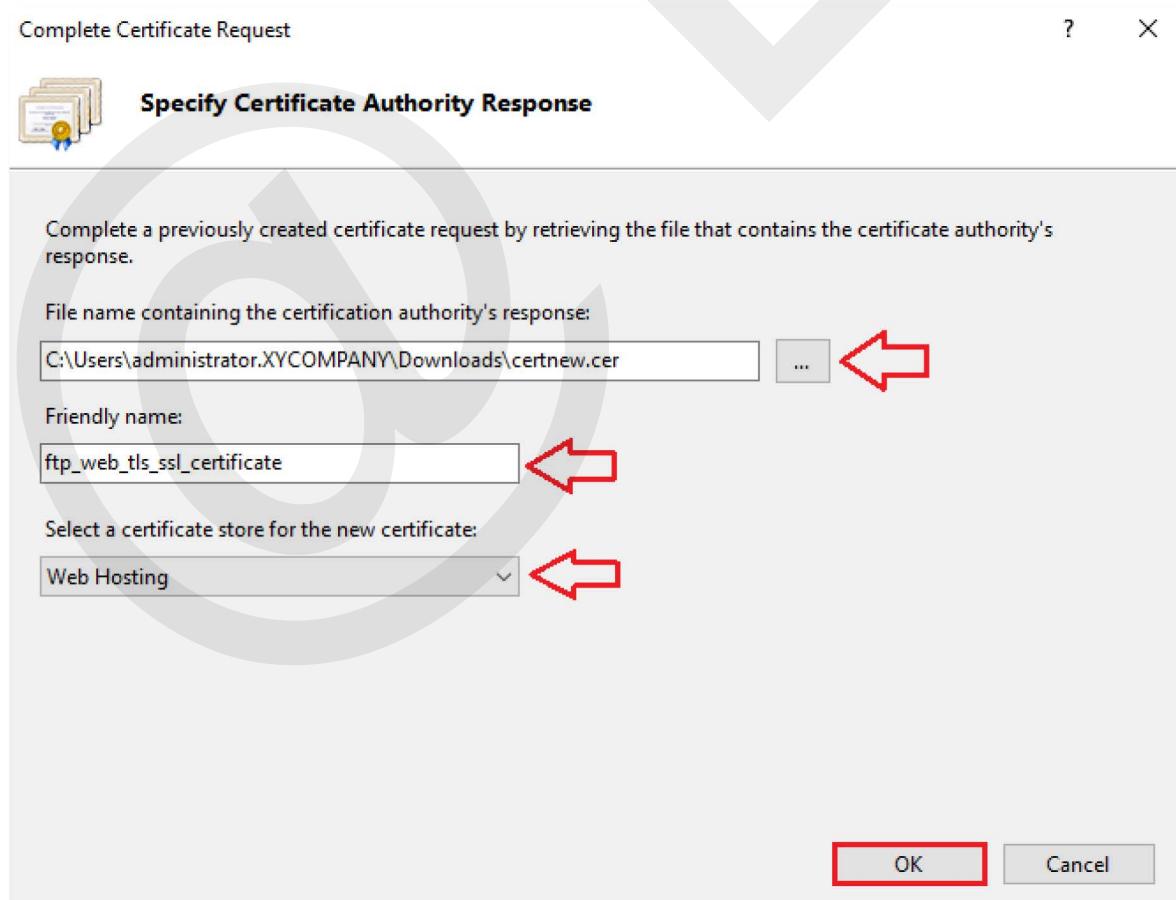
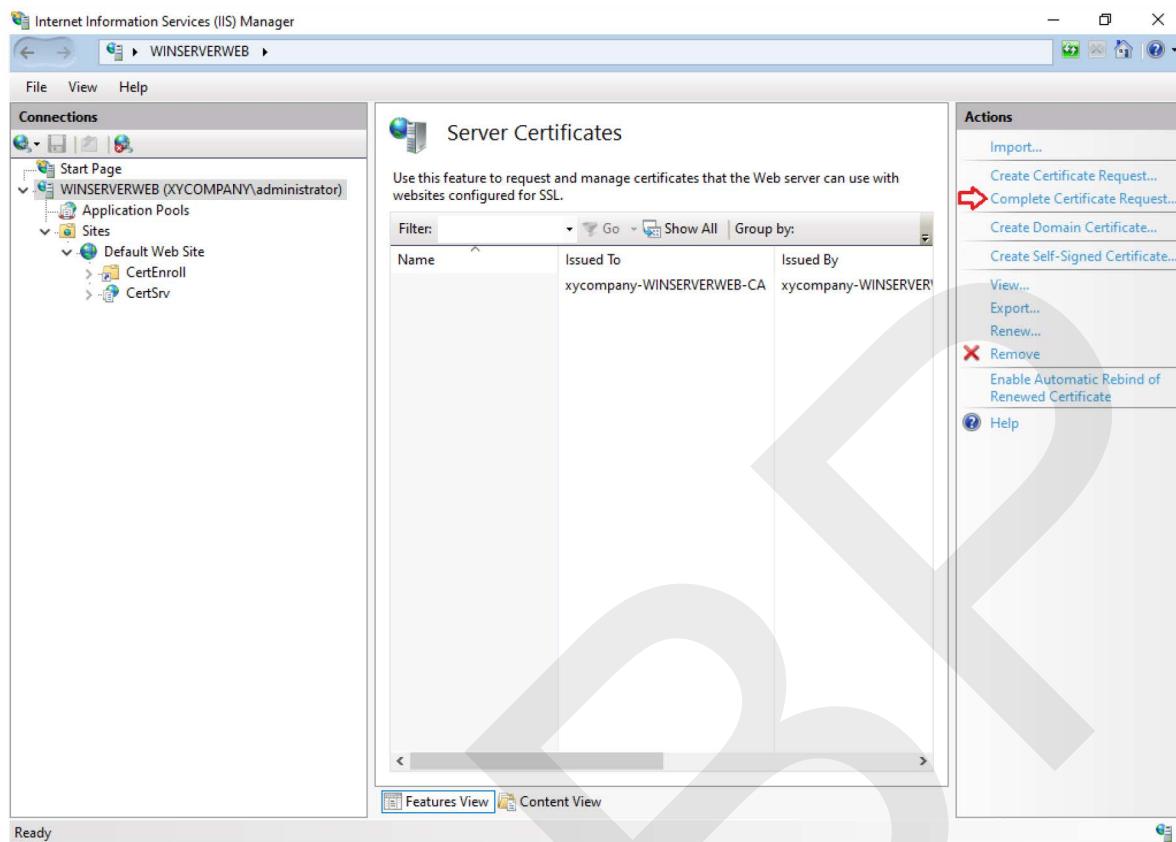
nyissuk meg a böngészőben a fenti oldalt



illetessük be a válonlap tartalmát a „Saved Request” részhez

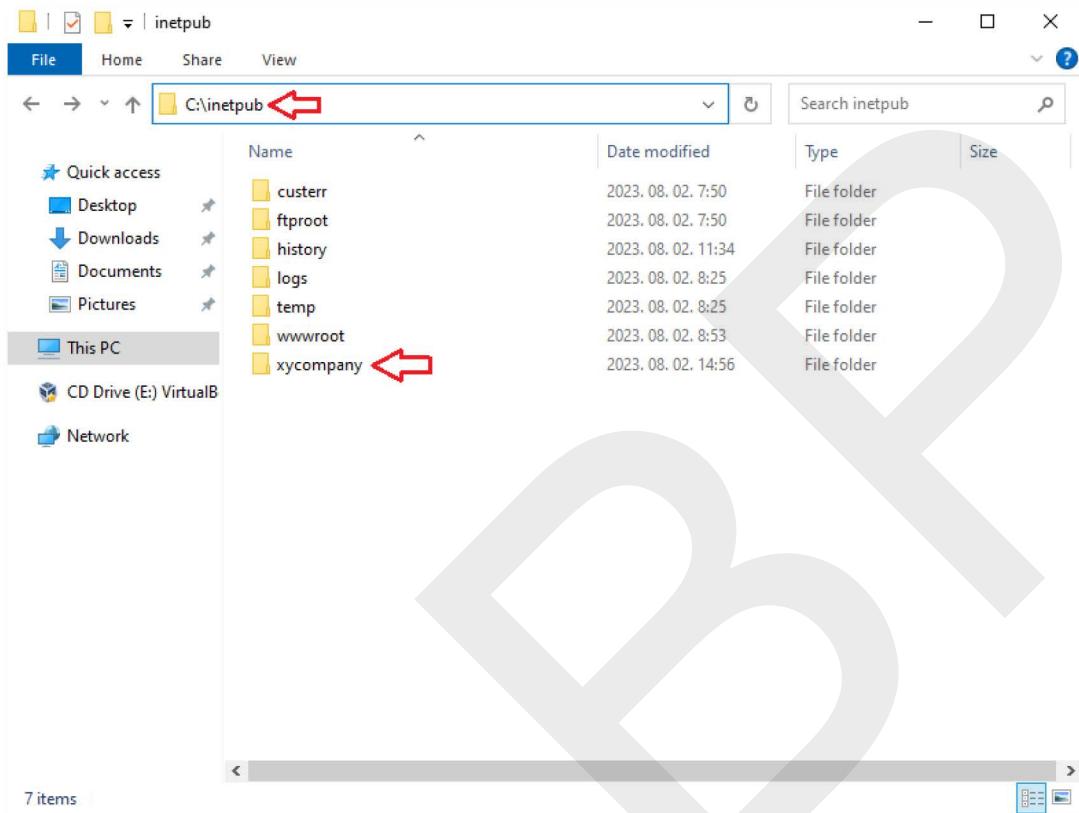


Server Manager/Tools/Internet Information Services (IIS) Manager/Server Certificates

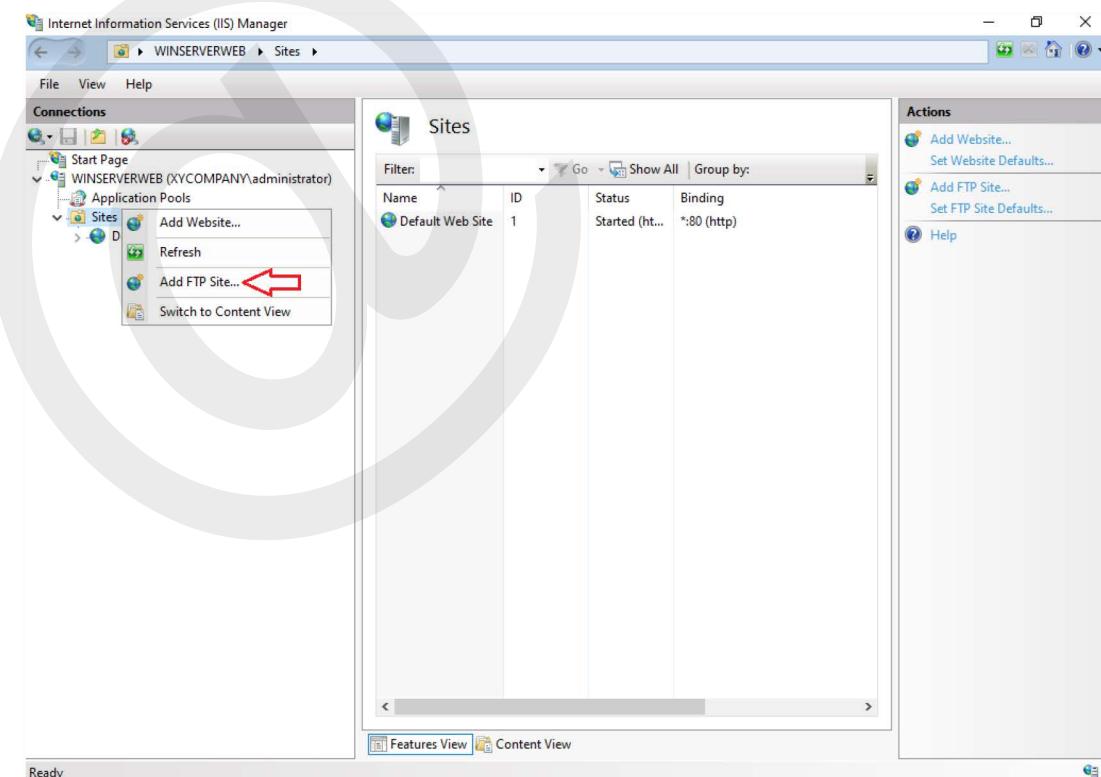


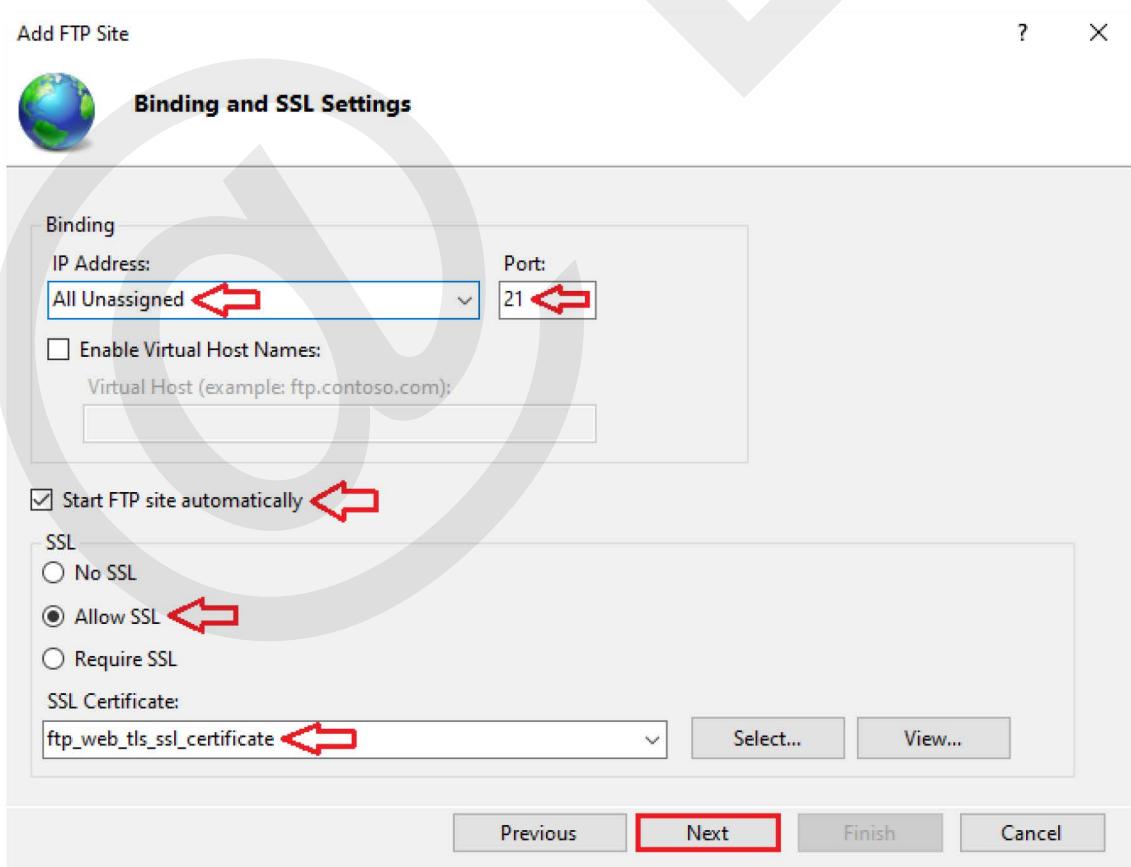
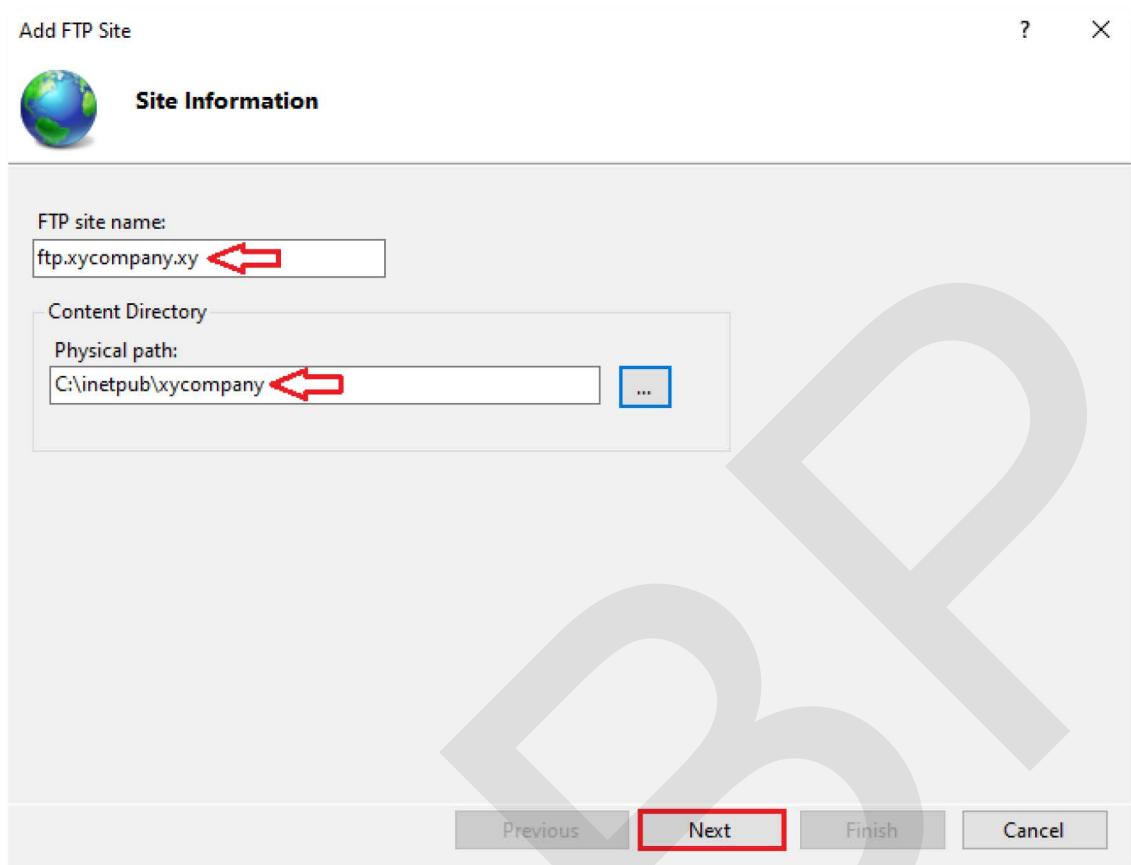
## 6.6 FTP kapcsolat és weboldal létrehozása, konfigurálása

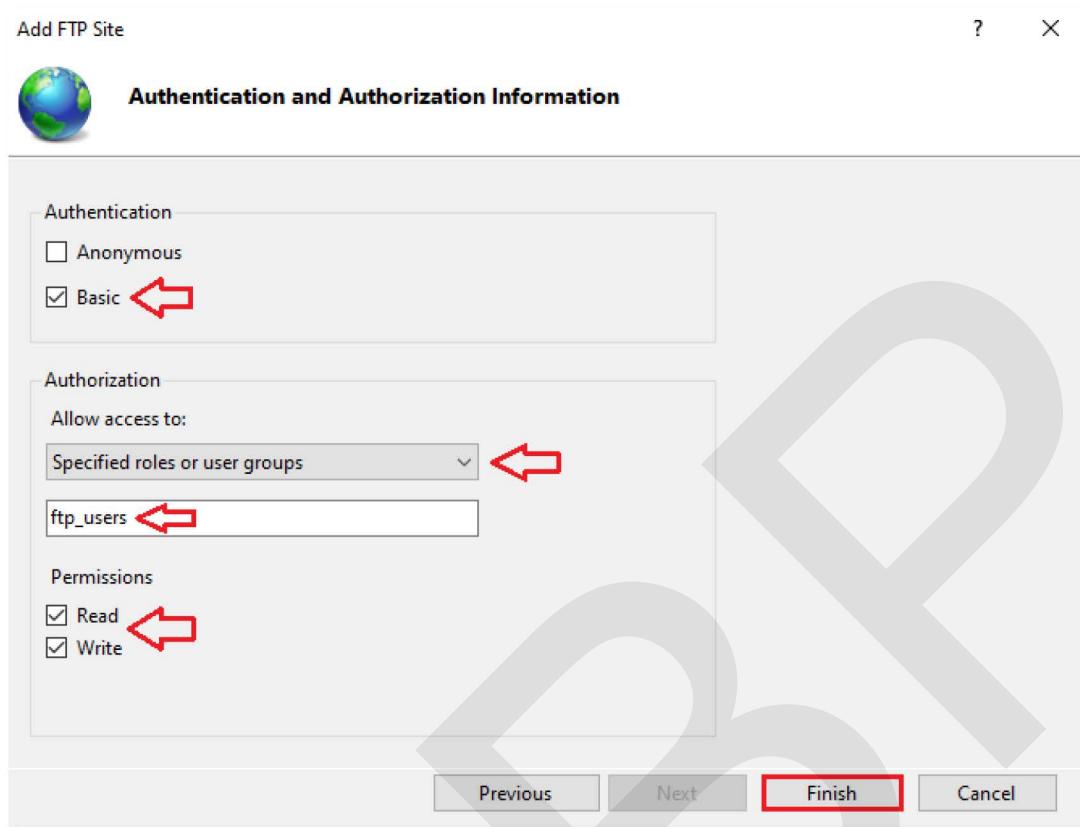
Hozzunk létre egy mappát a **winserverweb** szerveren az alábbiak szerint:



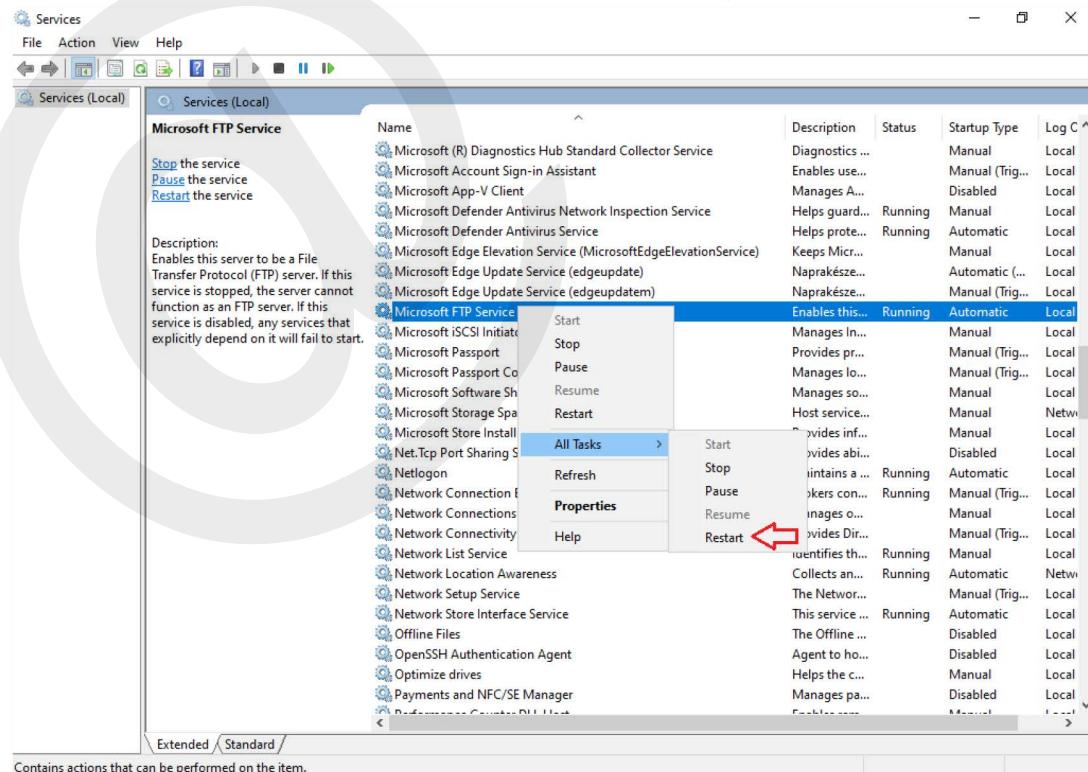
ebben a mappában fogjuk a weboldalunkat elhelyezni



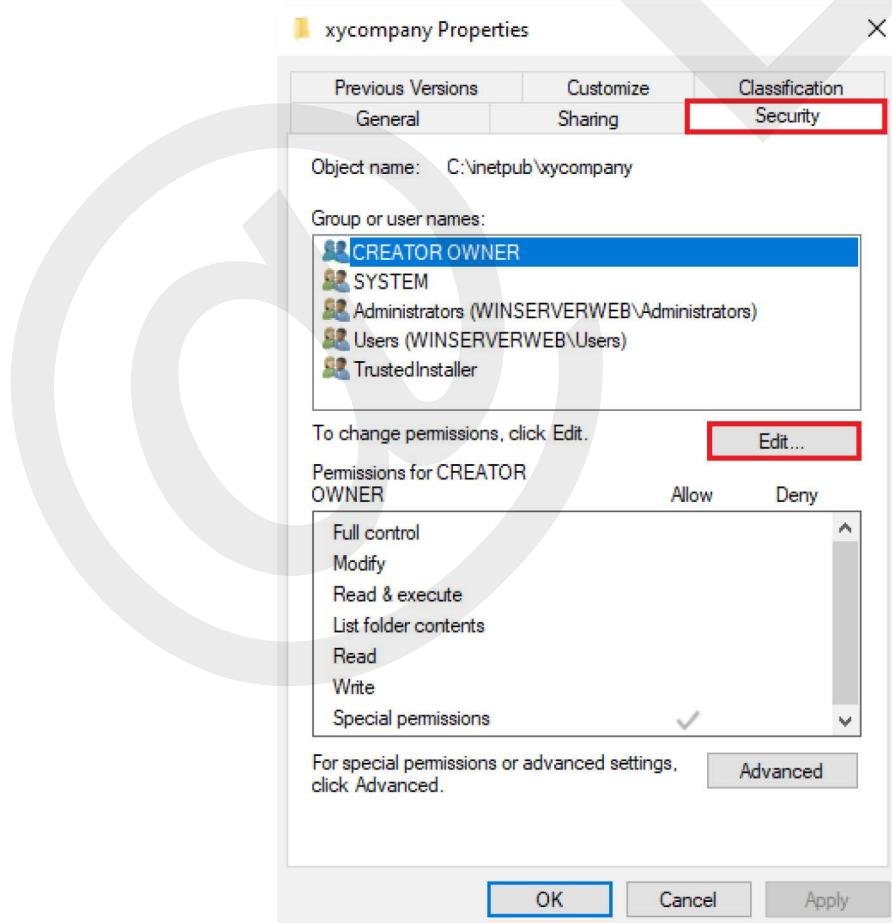
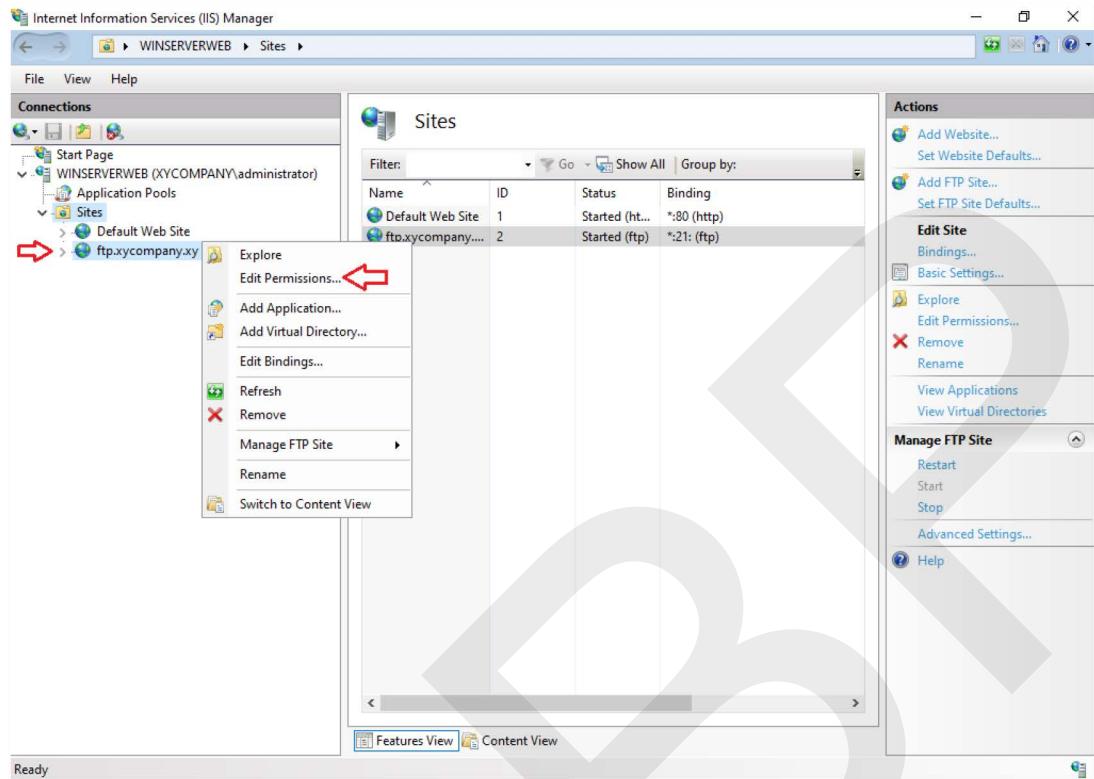


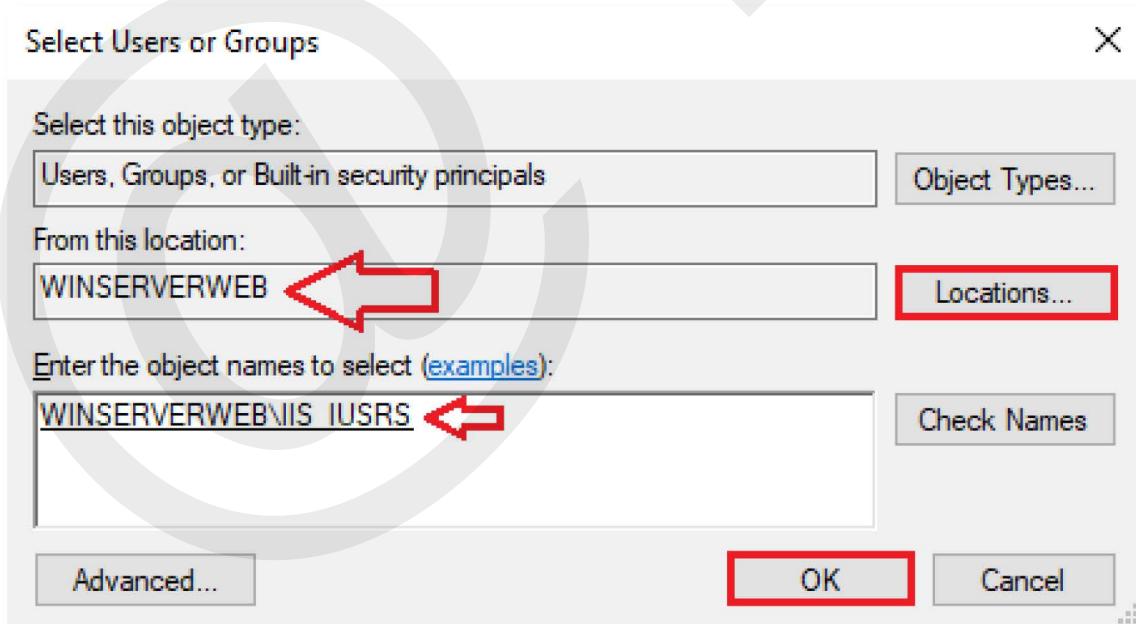
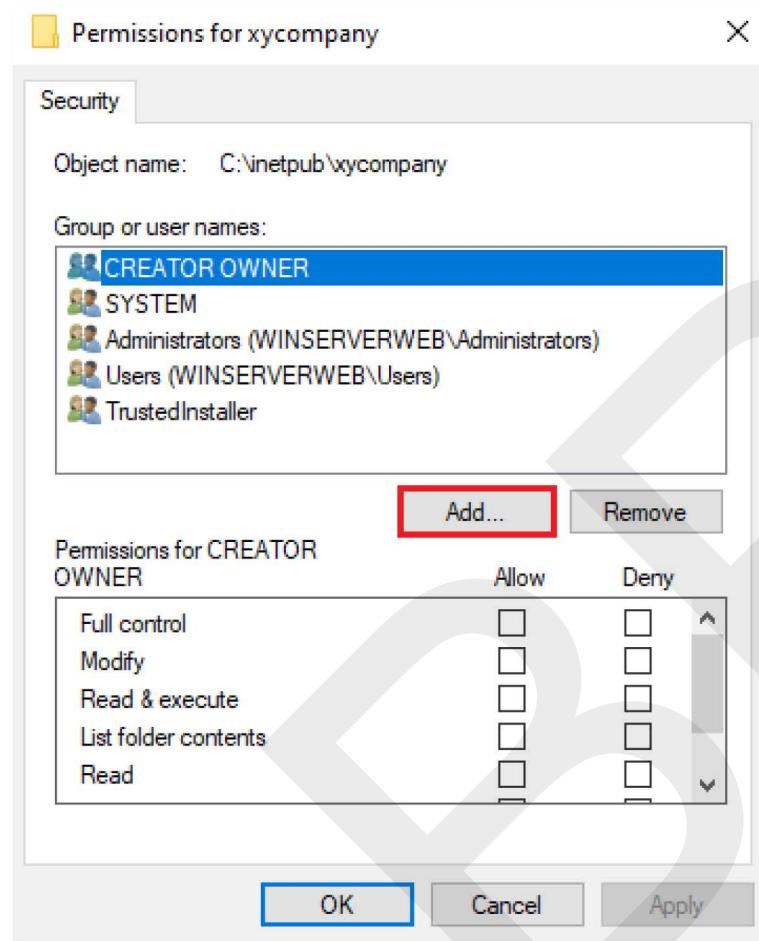


**Indítsuk újra az FTP szolgáltatást:** futtatásba írjuk be → services.msc → Microsoft FTP Service restart:

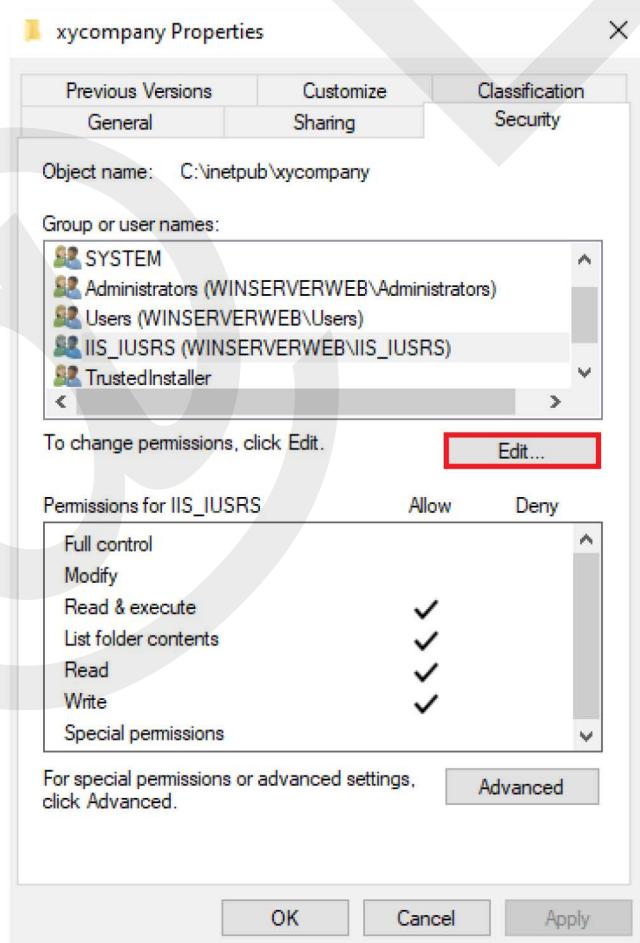
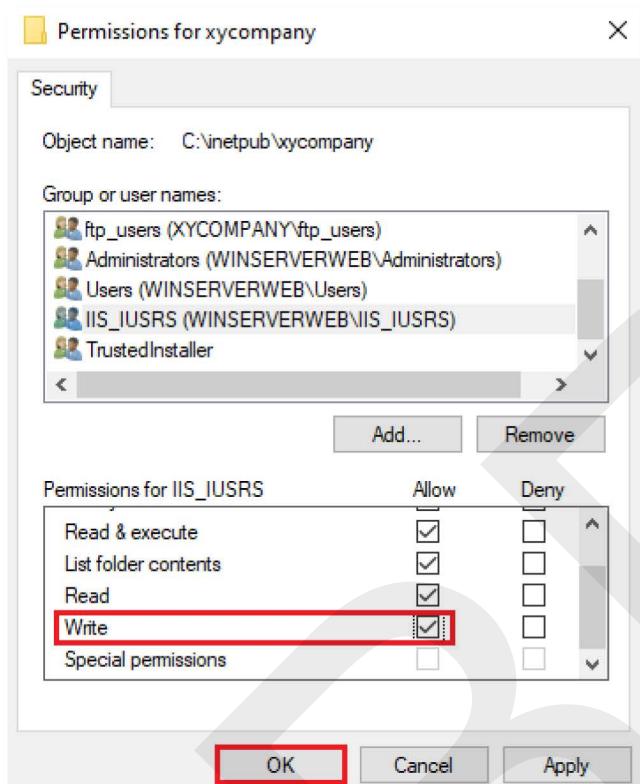


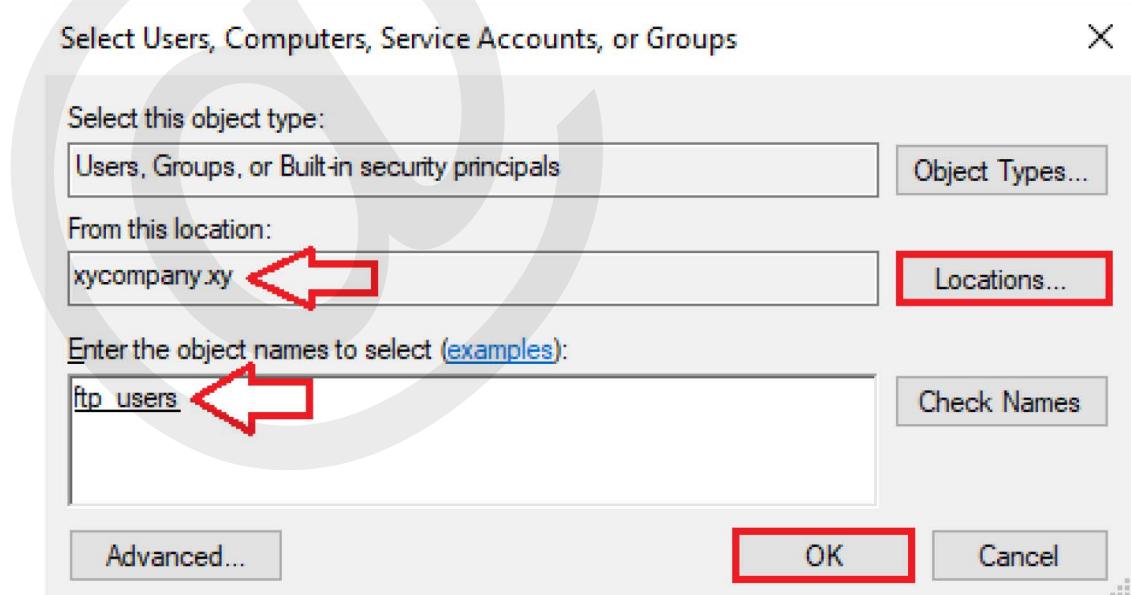
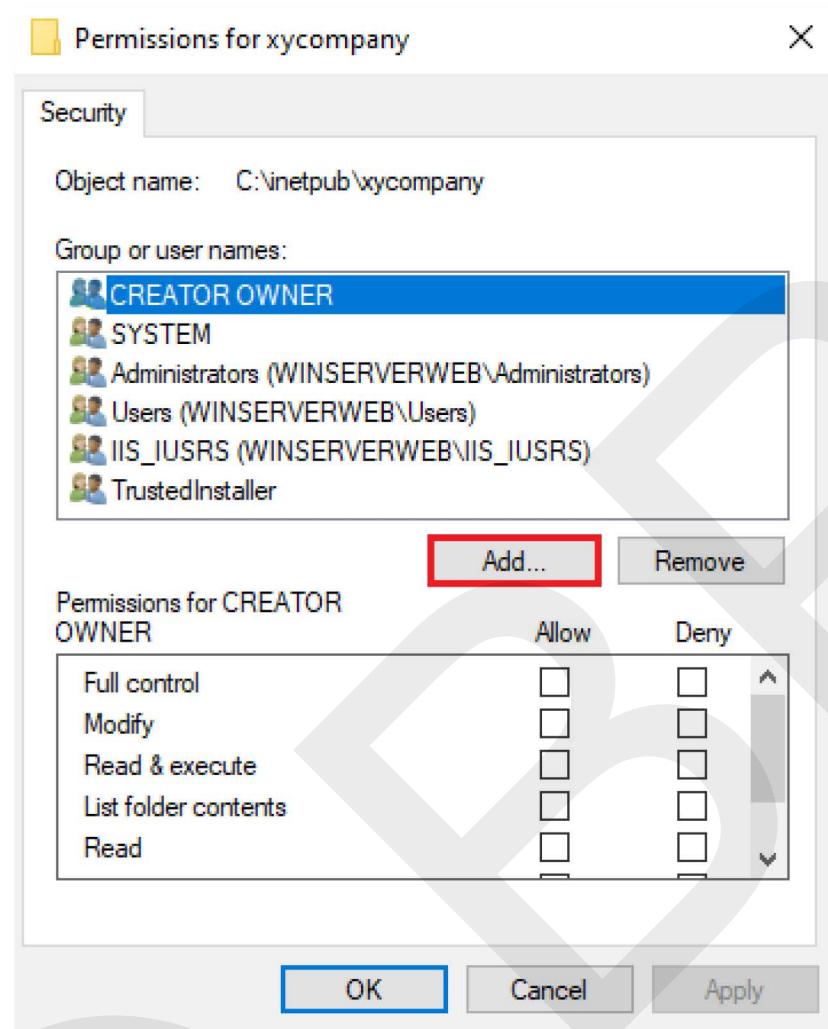
## Állítsuk be a megfelelő jogosultságokat:

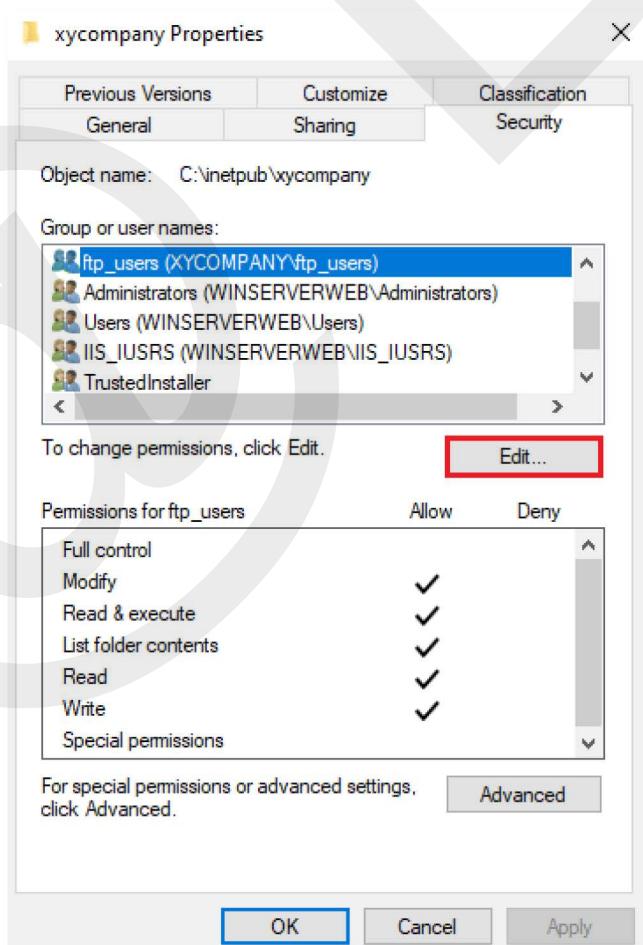
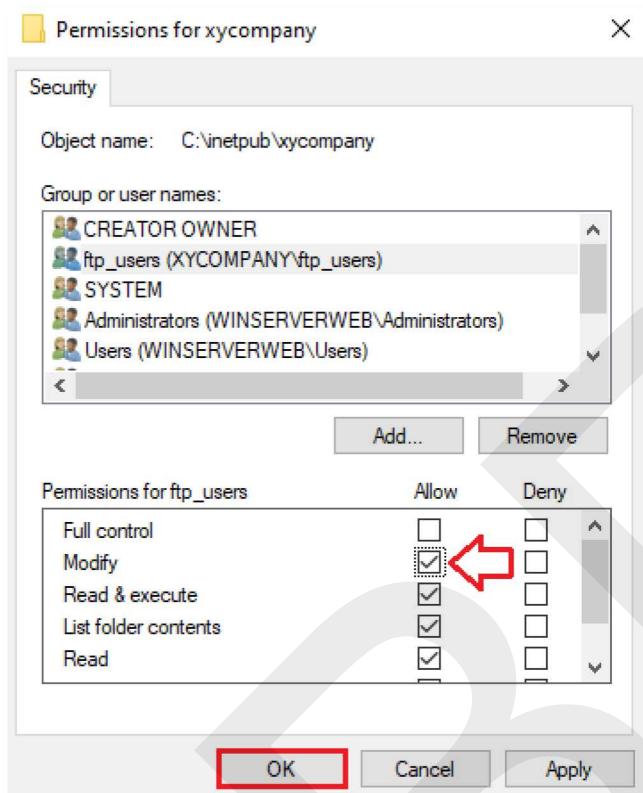


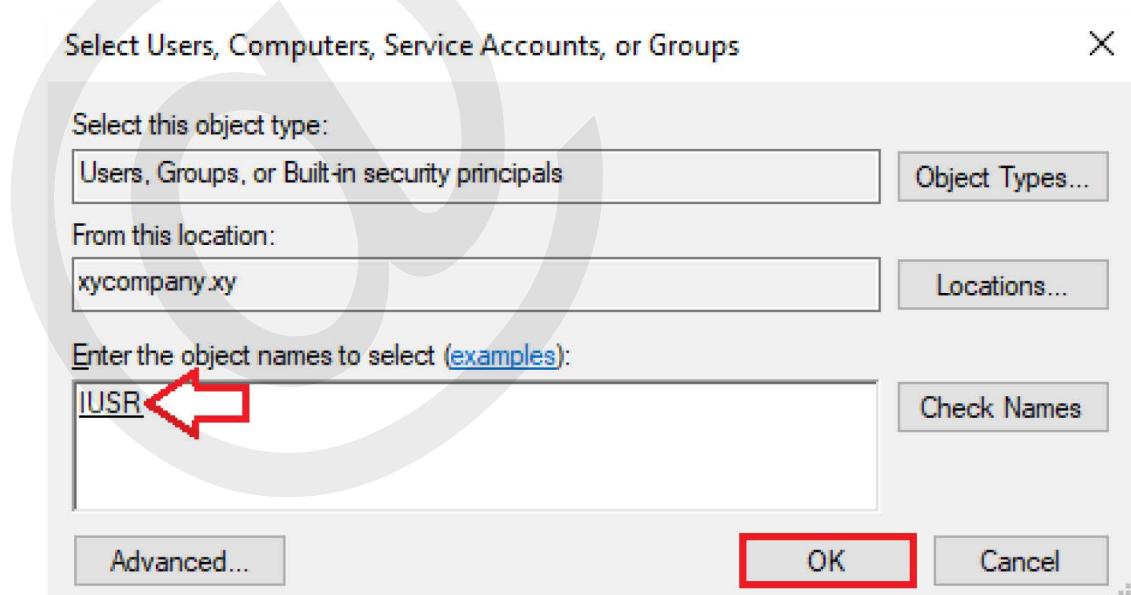
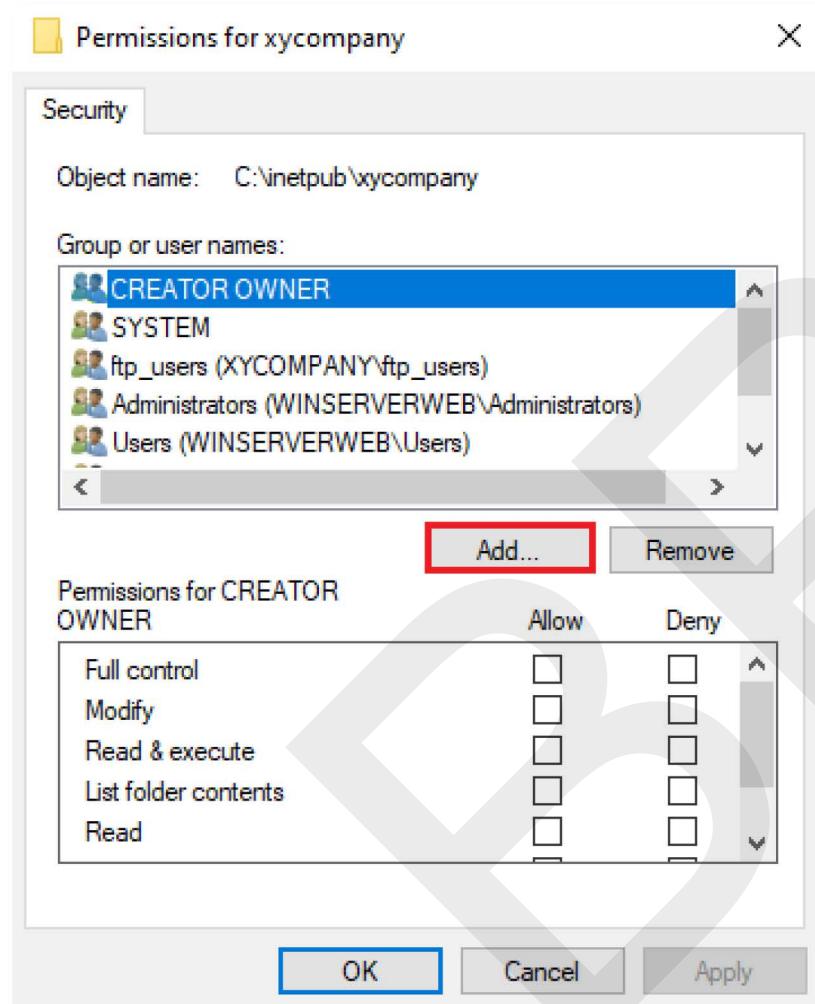


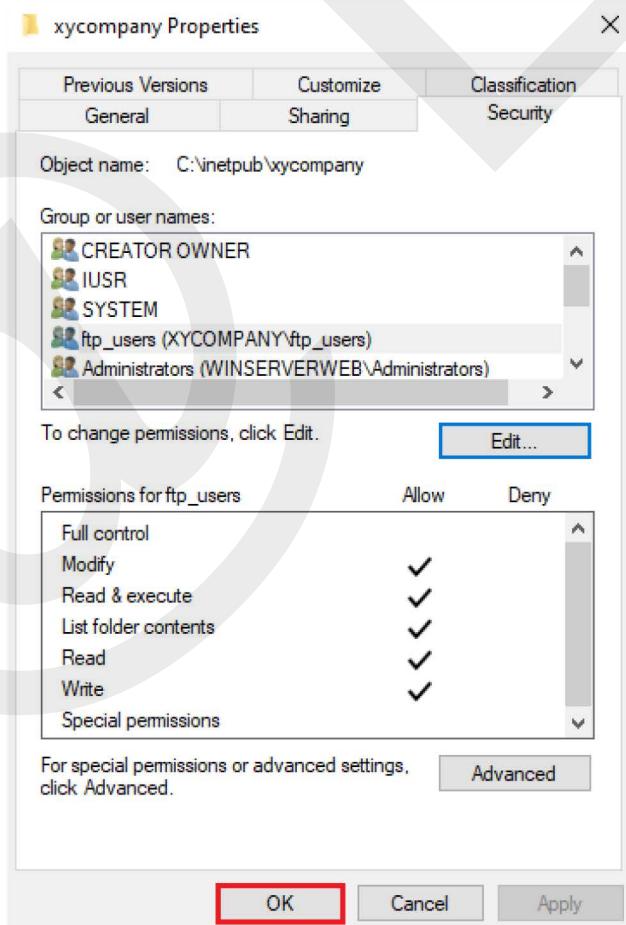
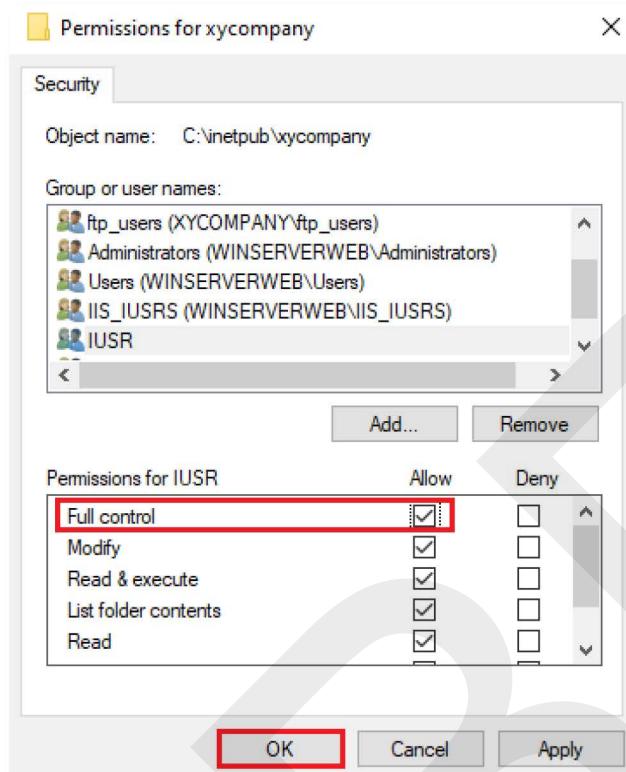
WINSERVERWEB\IIS\_IUSRS



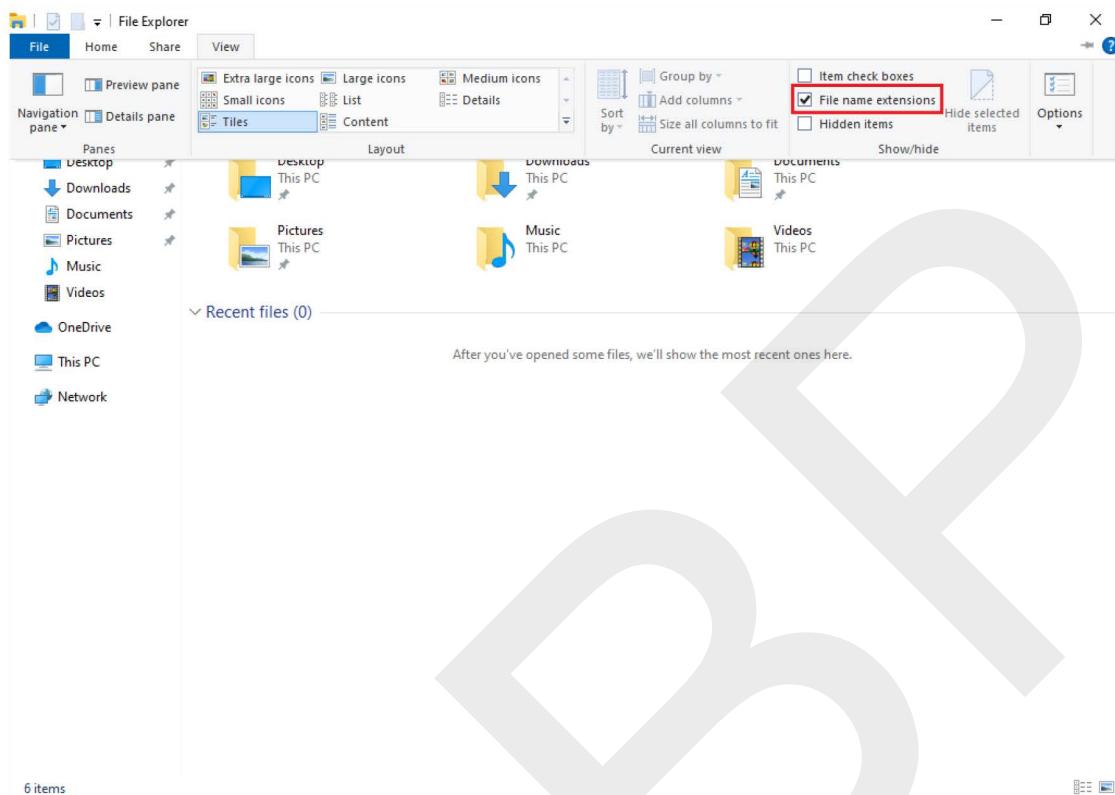




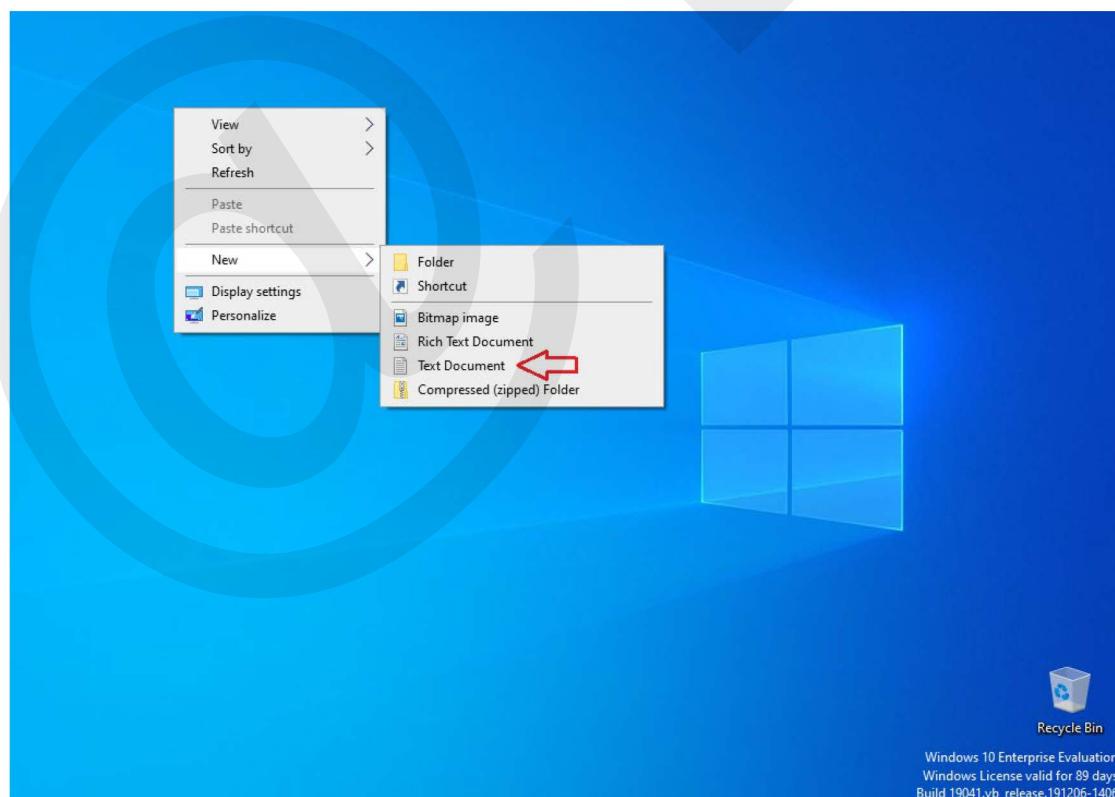




## A Windows kliens gépen hozzunk létre egy egyszerű weboldalt:



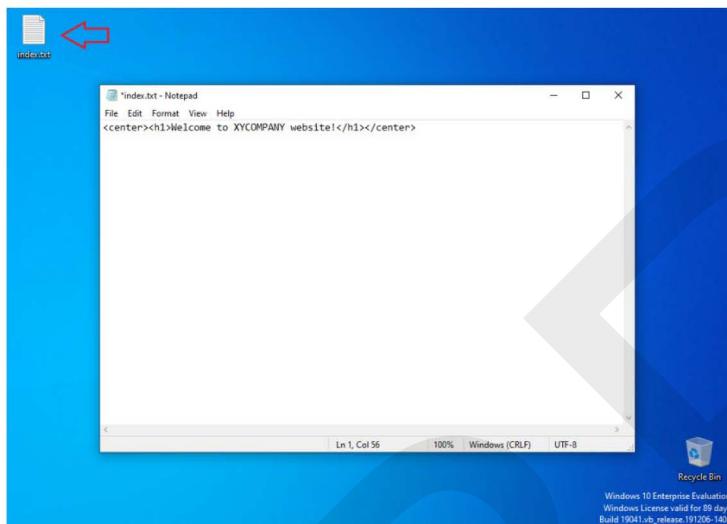
kapcsoljuk be a „File name extensions-t” a File Explorerben



hozzunk létre egy szöveges fájlt „index.txt” néven a Windows kliens asztalán

**Nyissuk meg a fájlt és az alábbi tartalmat másoljuk bele:**

```
<center><h1>Welcome to XYCOMPANY website!</h1></center>
```



Mentsük a fájlt és lépjünk ki!

**Nevezzük át a fájlt index.html-re!**

**WinSCP szoftver letöltése, konfigurálása, weboldal webszerverre másolása:**

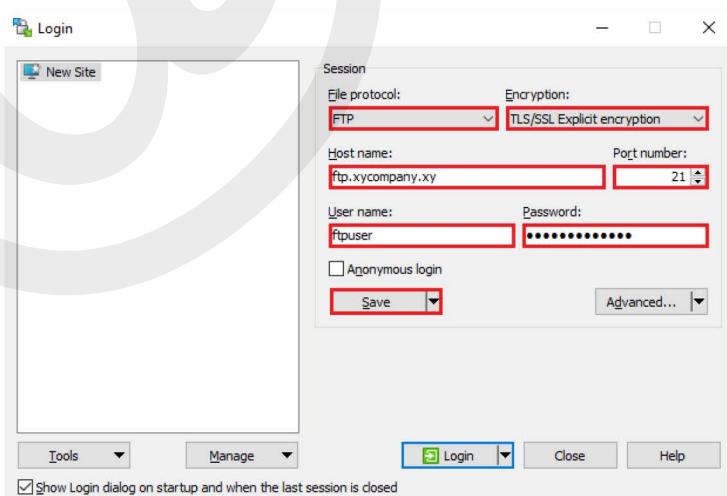
**A winclient parancssorában (adminisztrátori joggal) adjuk ki a következő parancsot:**

netsh advfirewall set global StatefulFTP disable

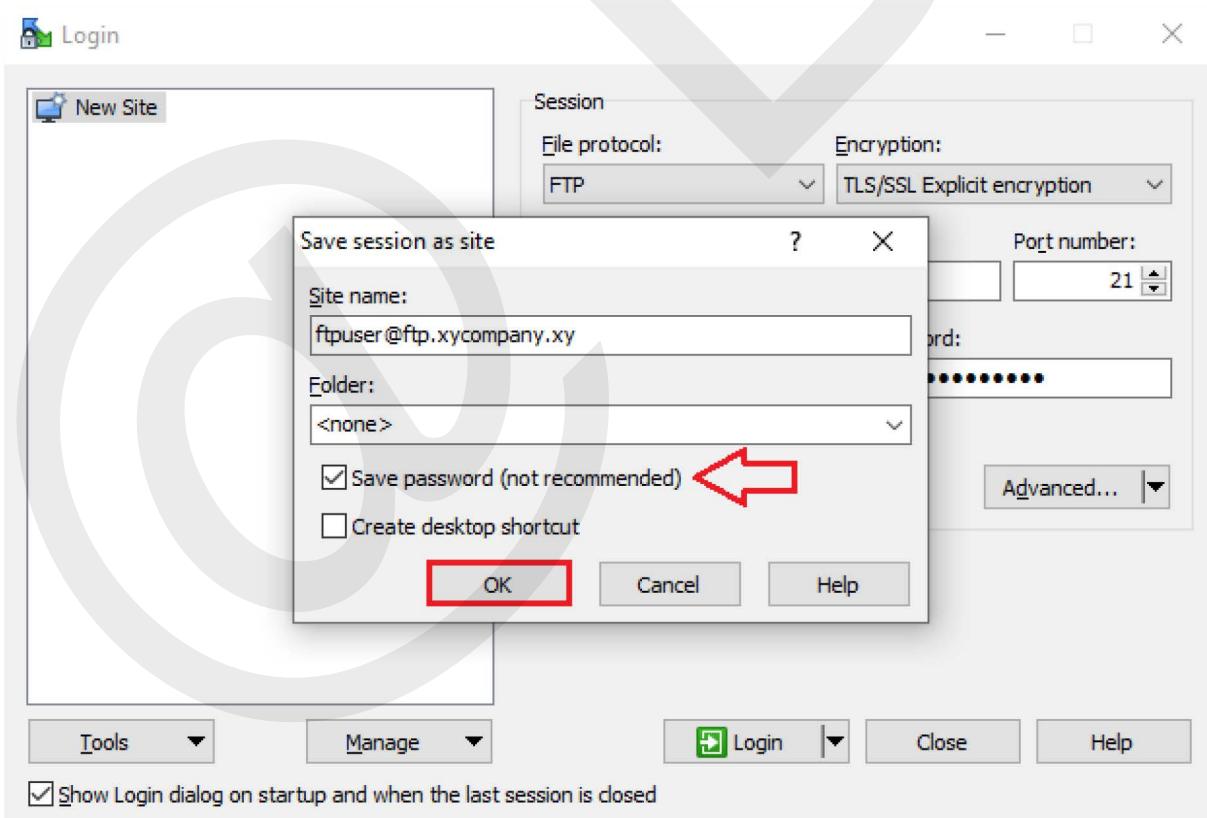
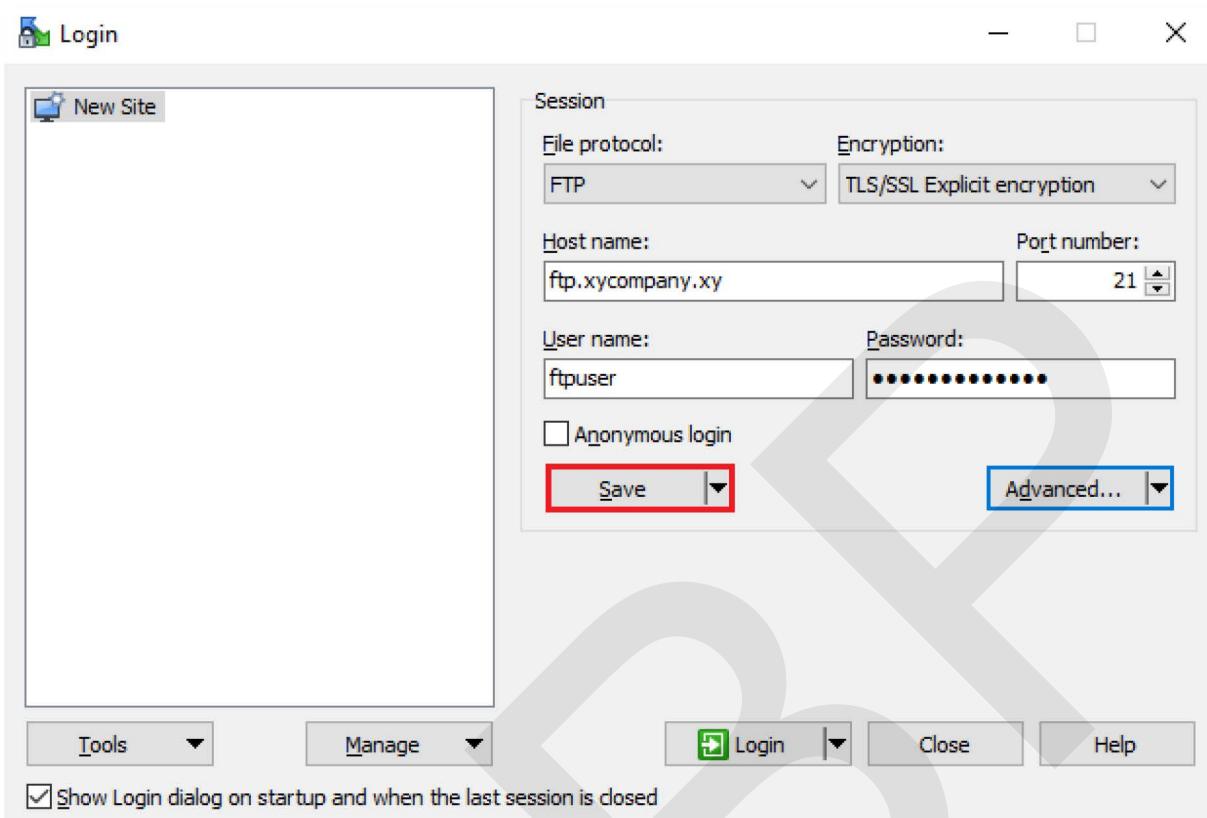
**Töltsük le a WinSCP programot a hivatalos weboldalról és telepítük!**

<https://winscp.net/eng/download.php>

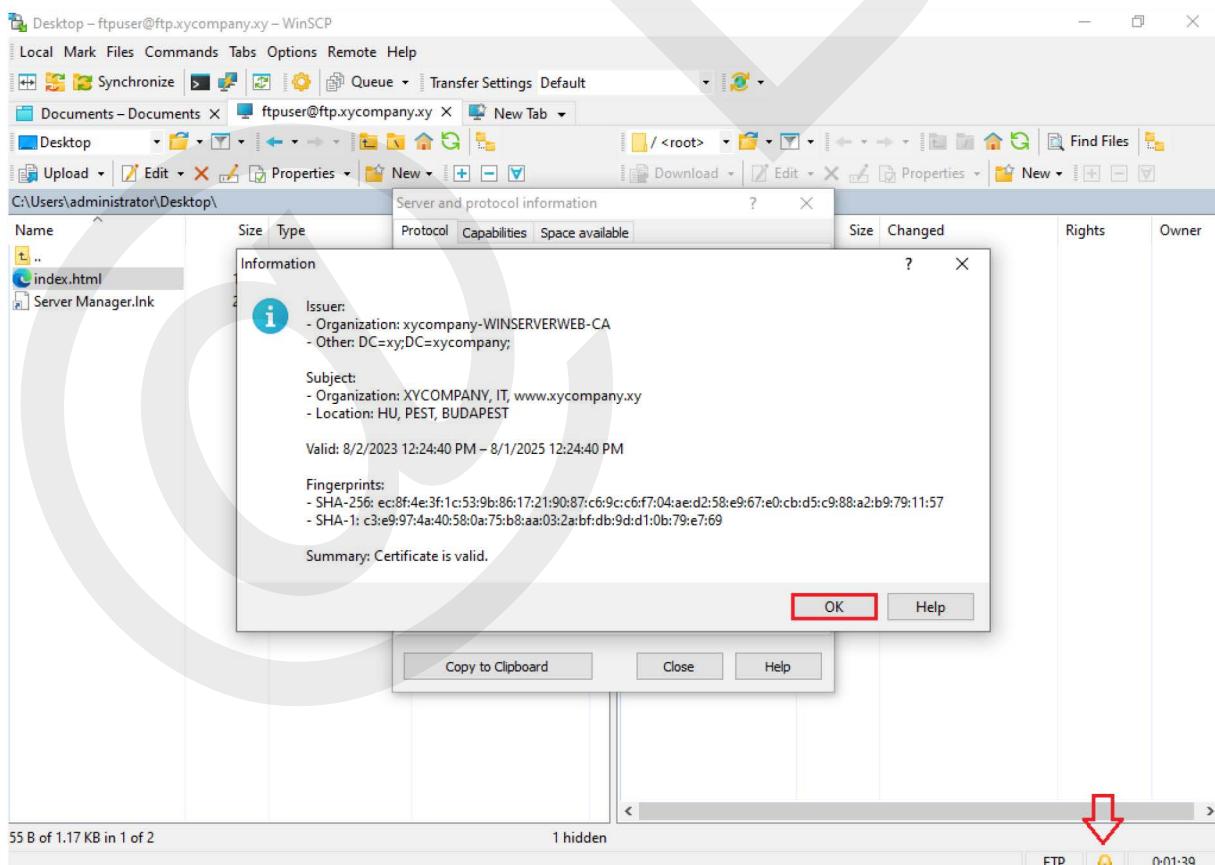
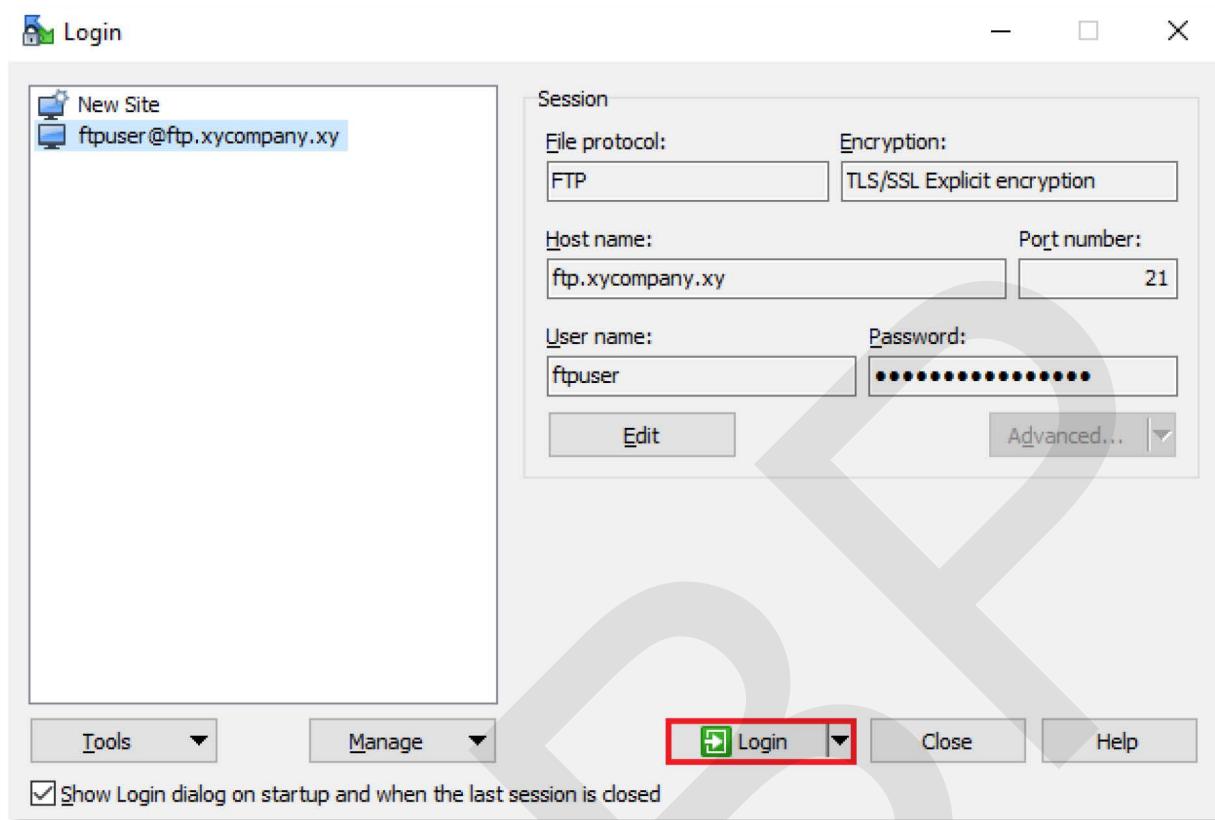
**A telepítés után nyissuk meg a programot és konfiguráljuk az alábbiak szerint:**



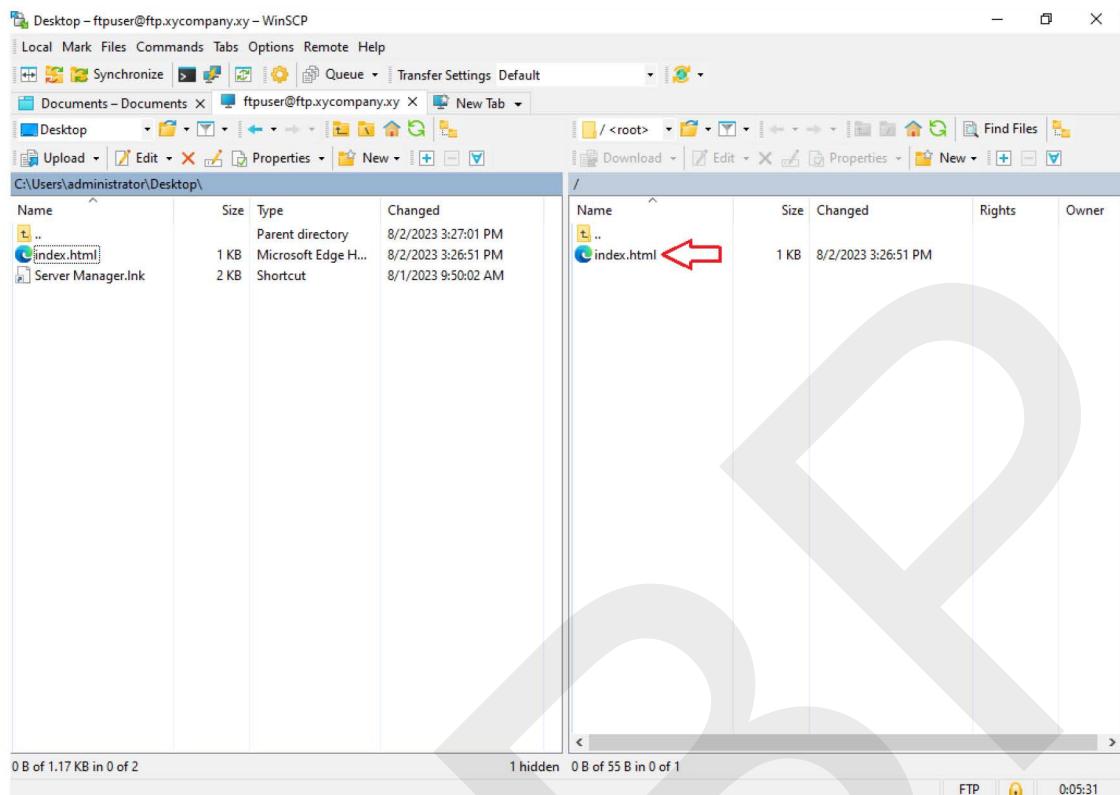
**jelszó: #Dd123456789@**



valós környezetben a jelszót nem ajánlott elmenteni

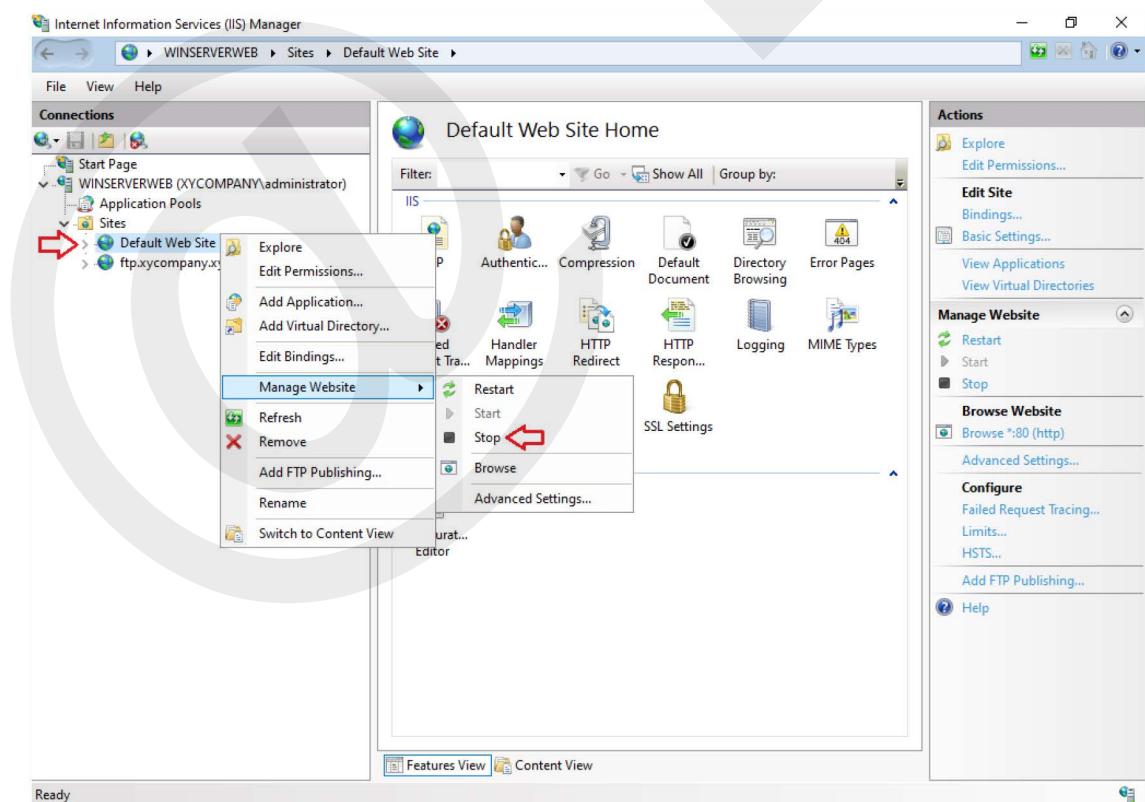


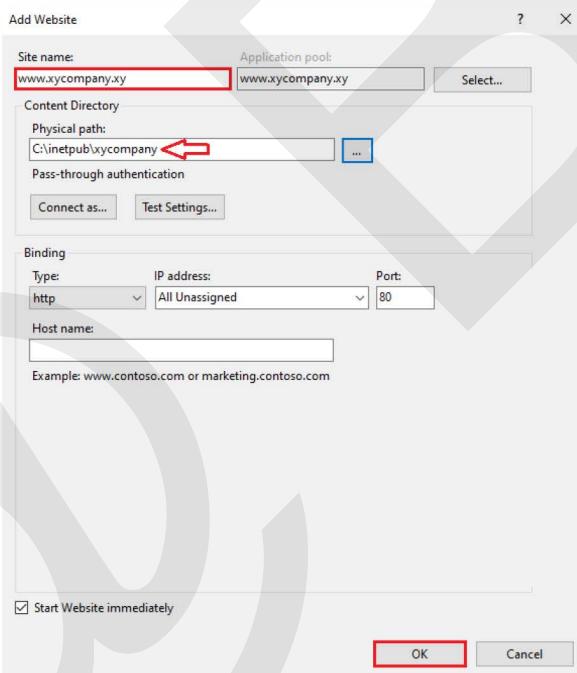
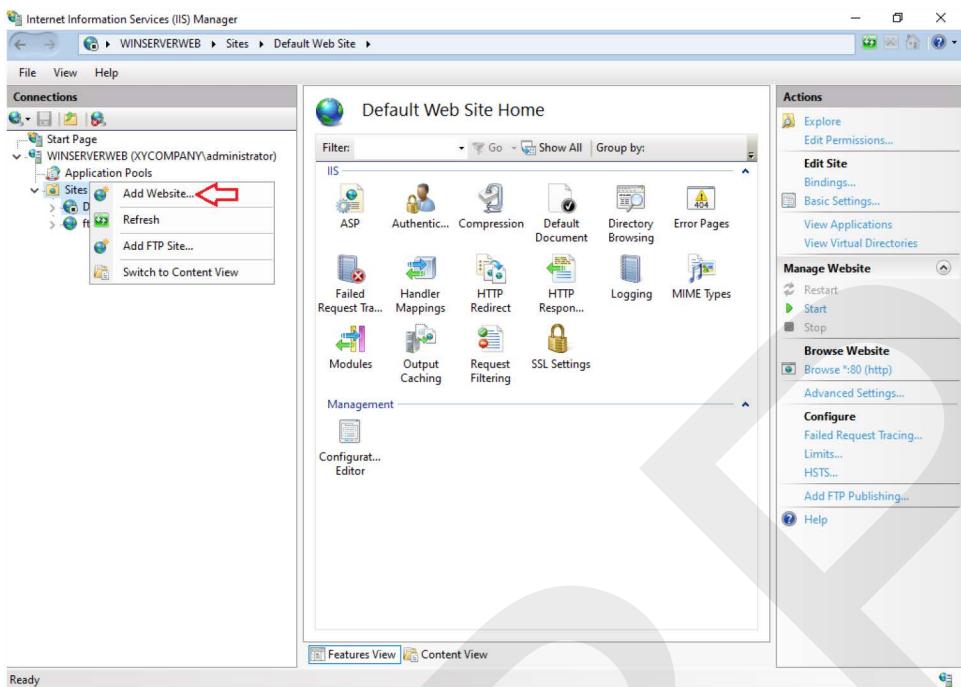
csatlakozás után a zárt lakatra kattintva megtekinthetjük az érvényes tanúsítványt



másoljuk át az index.html fájlt a webszerverünkön létrehozott mappába

### Weboldal konfigurálása az IIS-ben:





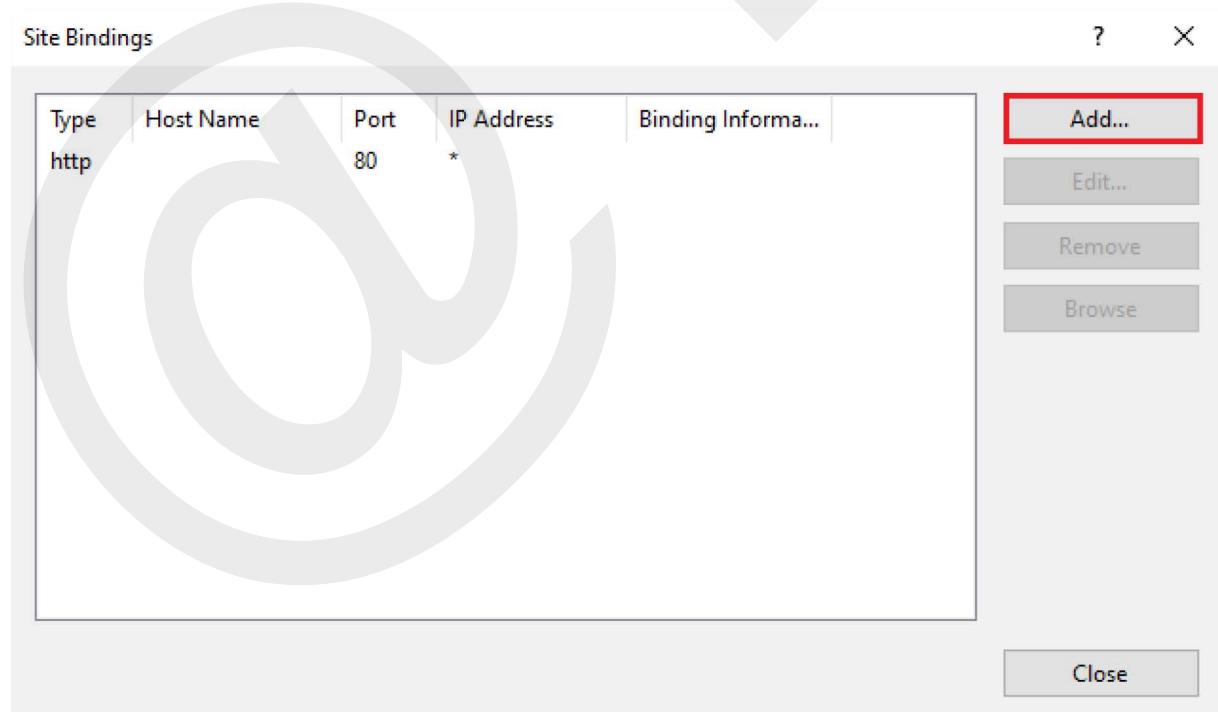
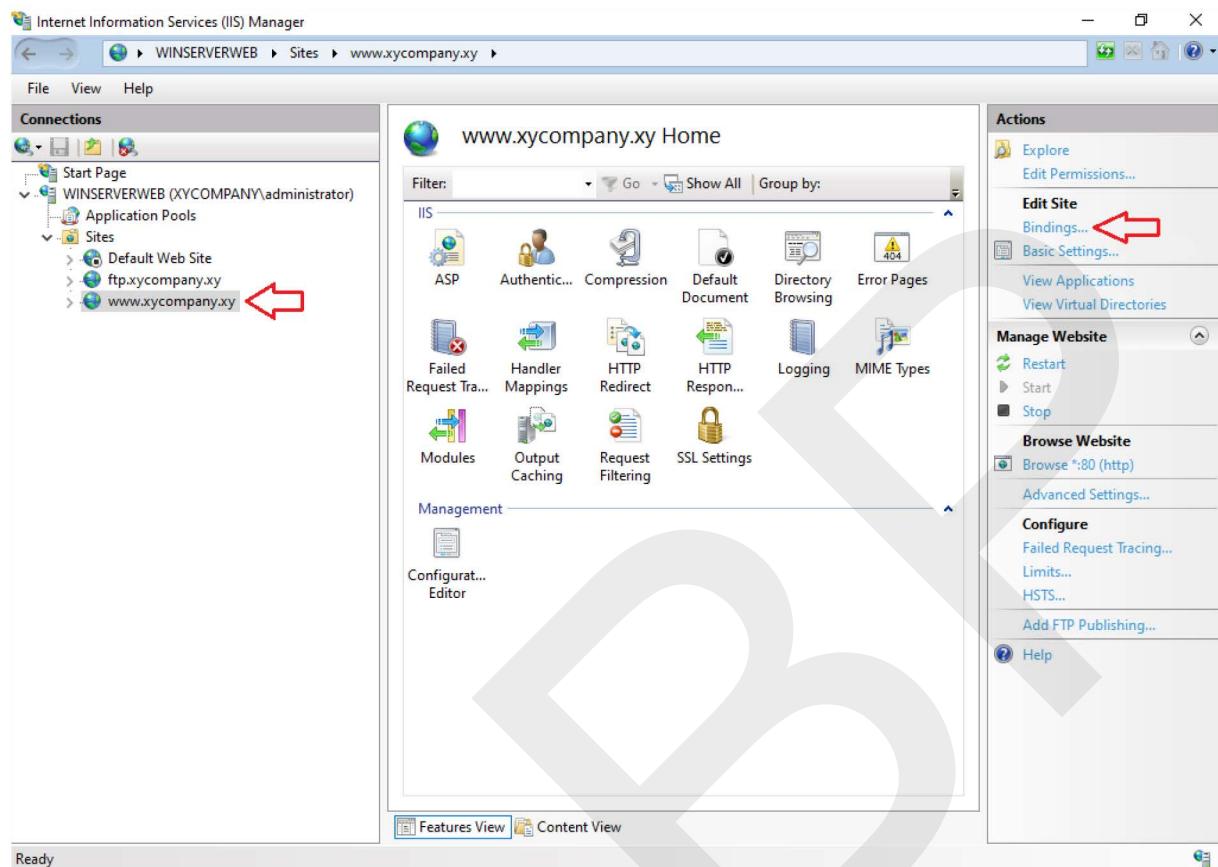
### Add Website

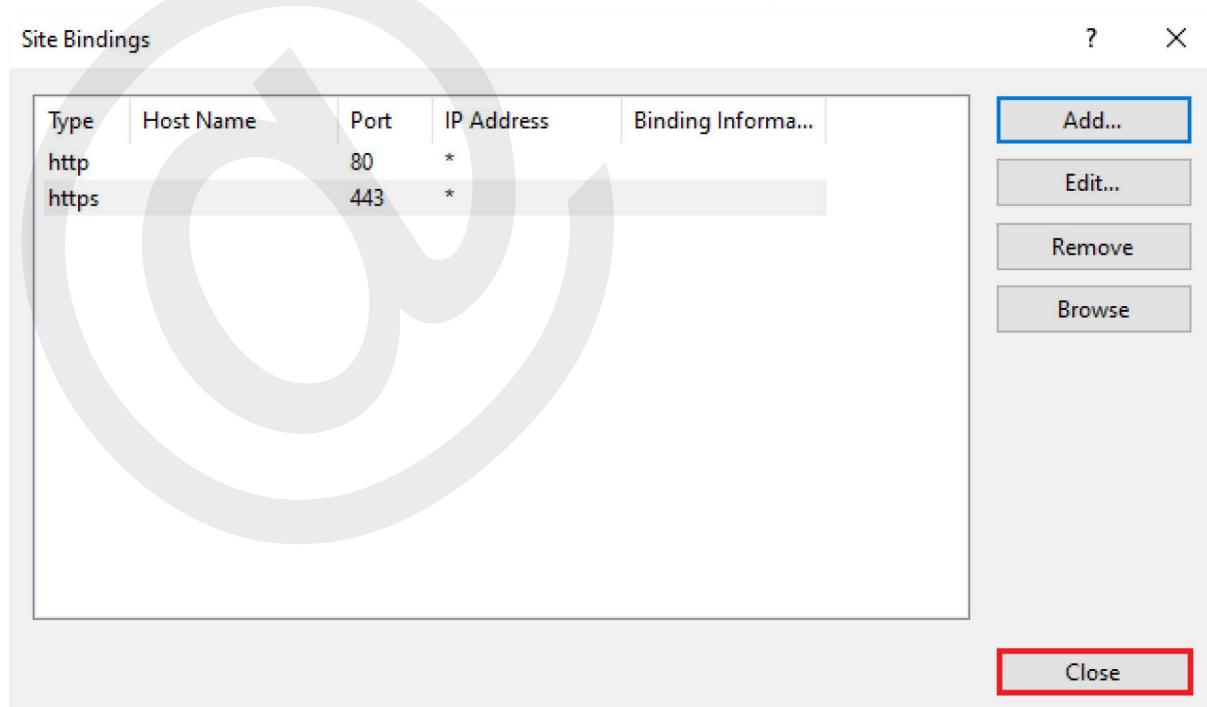
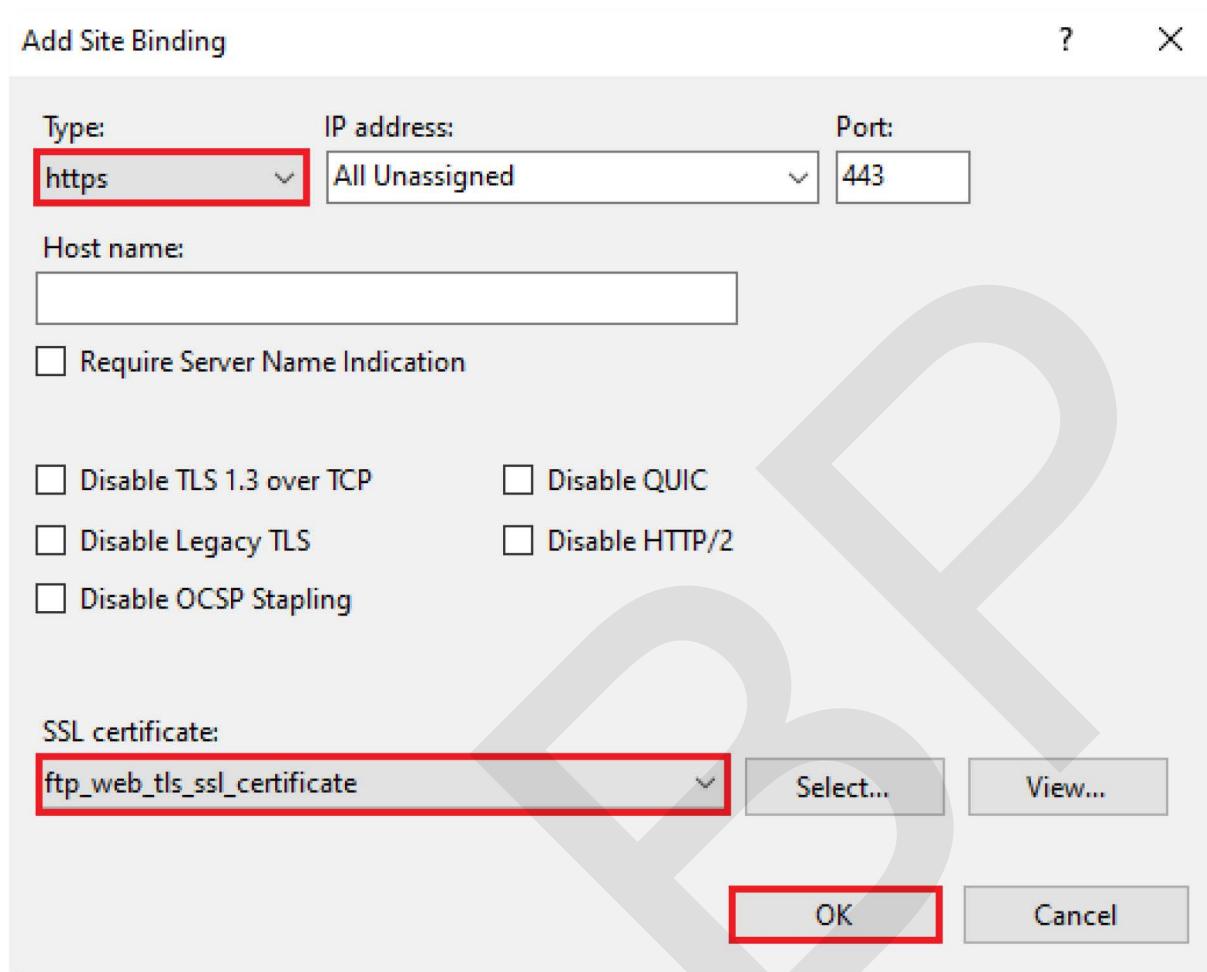


The binding '\*:80:' is assigned to another site. If you assign the same binding to this site, you will only be able to start one of the sites. Are you sure that you want to add this duplicate binding?

Yes

No

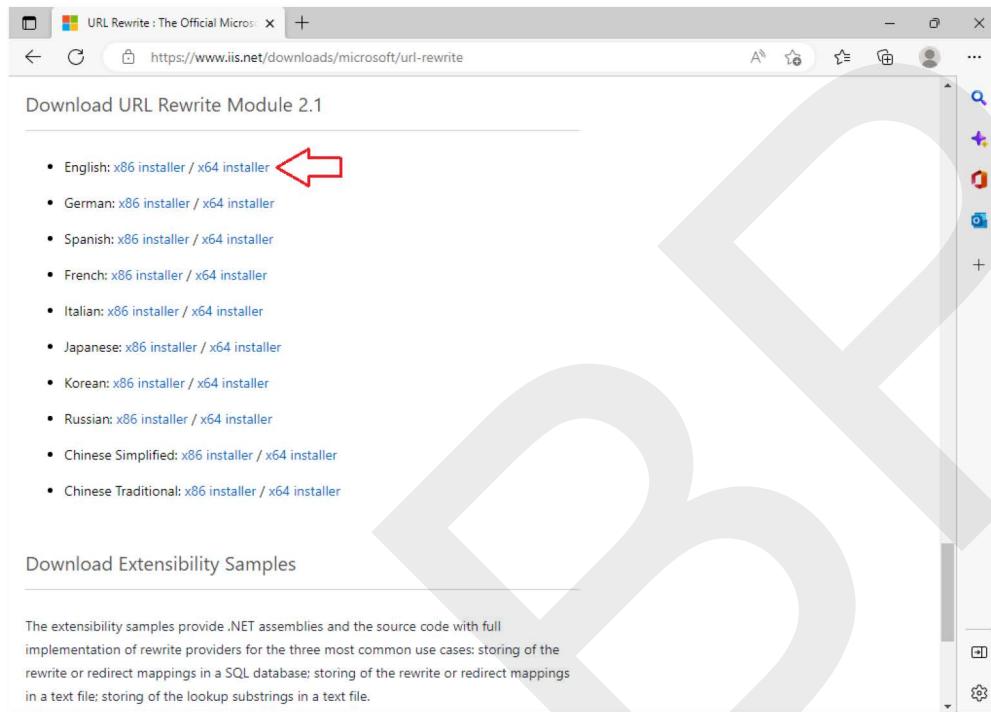




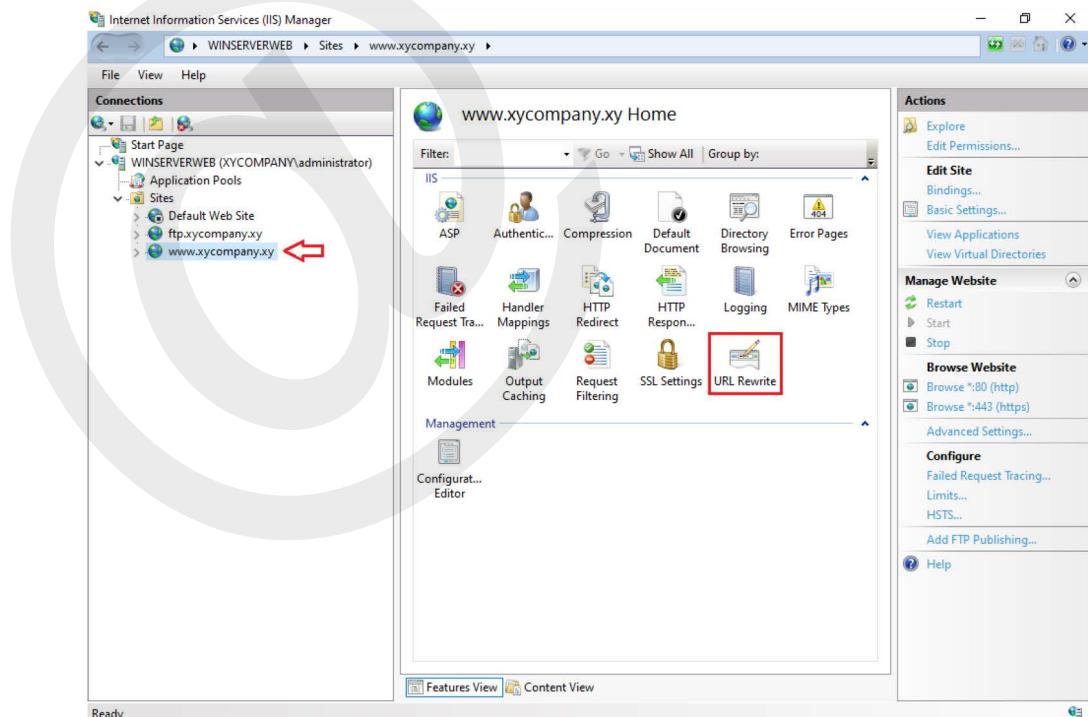
## HTTP átirányítása HTTPS-re, WWW átirányítása „csupasz” domain névre:

Töltsük le és telepítsük a szükséges programot:

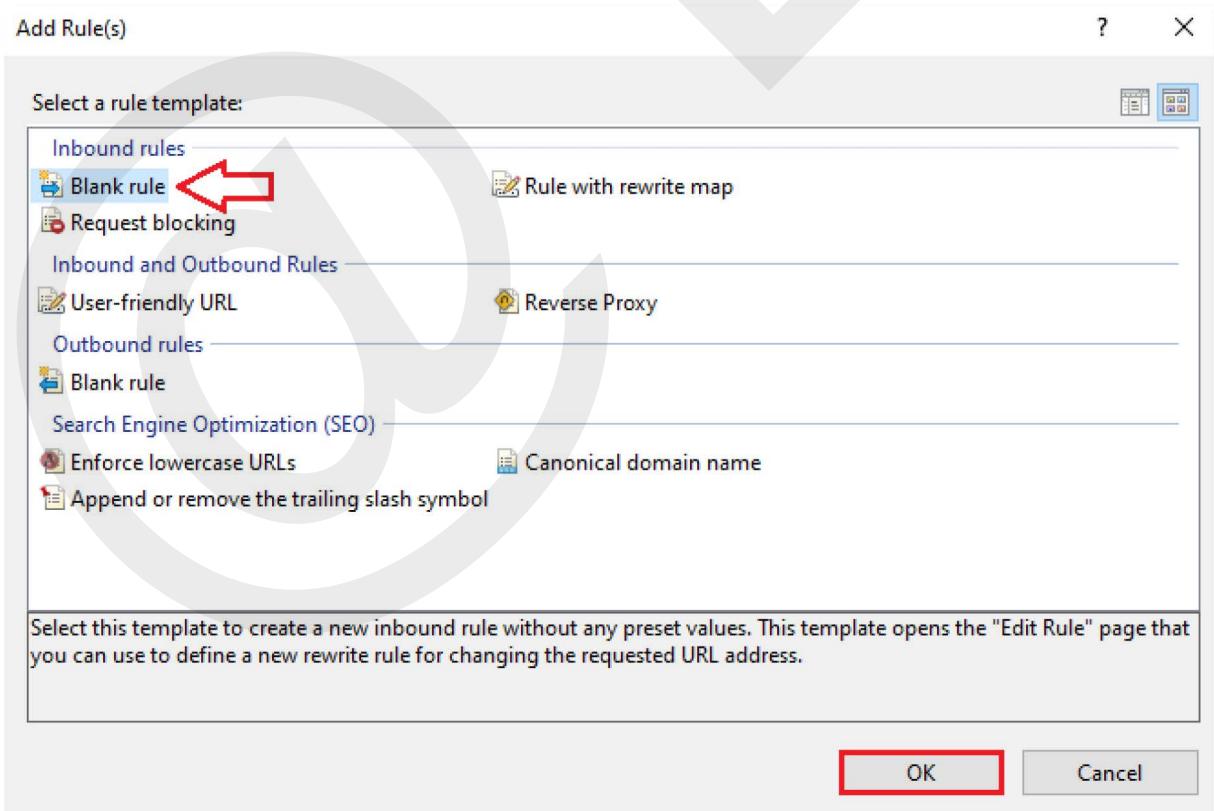
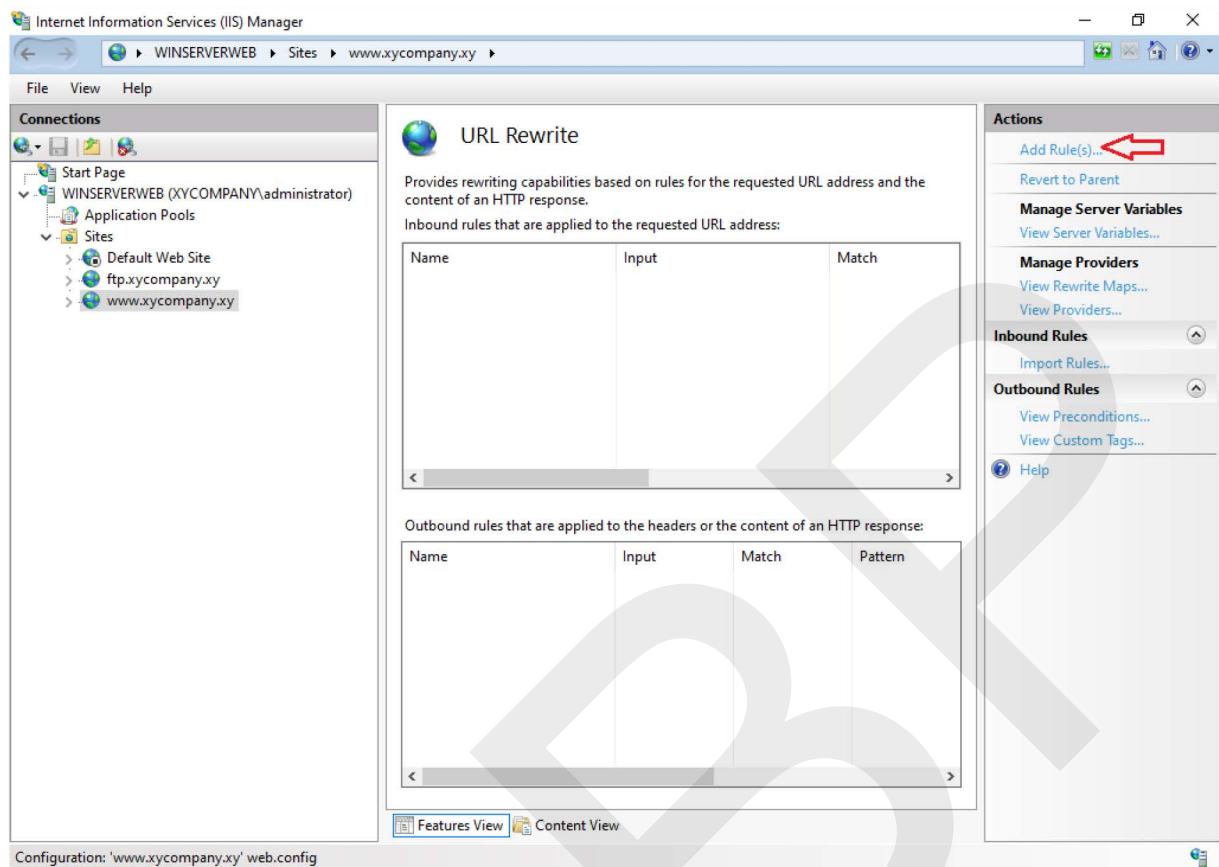
<https://www.iis.net/downloads/microsoft/url-rewrite>



Az URL Rewrite Modul telepítése után zárjuk be az IIS Manager-t, én nyissuk meg újra!



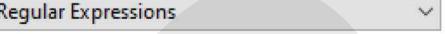
indítsuk el az URL Rewrite modult



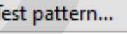
**Edit Inbound Rule**

Name: redirect\_www\_to\_non\_www\_http\_to\_https 

**Match URL**

Requested URL: Matches the Pattern 

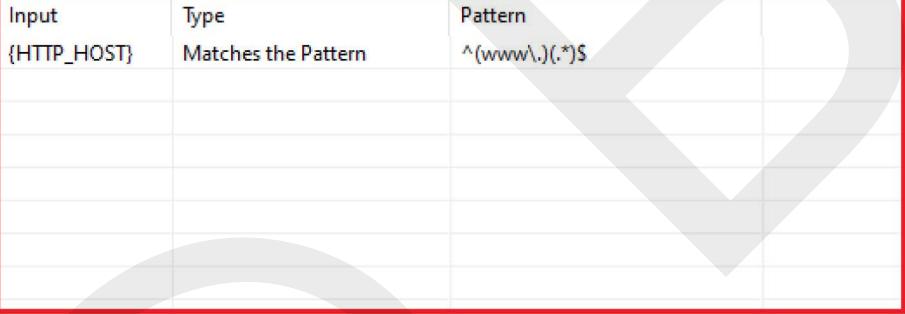
Pattern: `(.*)` 

Ignore case 

**Conditions**

Logical grouping: Match All

Input	Type	Pattern
{HTTP_HOST}	Matches the Pattern	<code>^(www\.)\.(.*)\$</code>





Track capture groups across conditions

**Action**

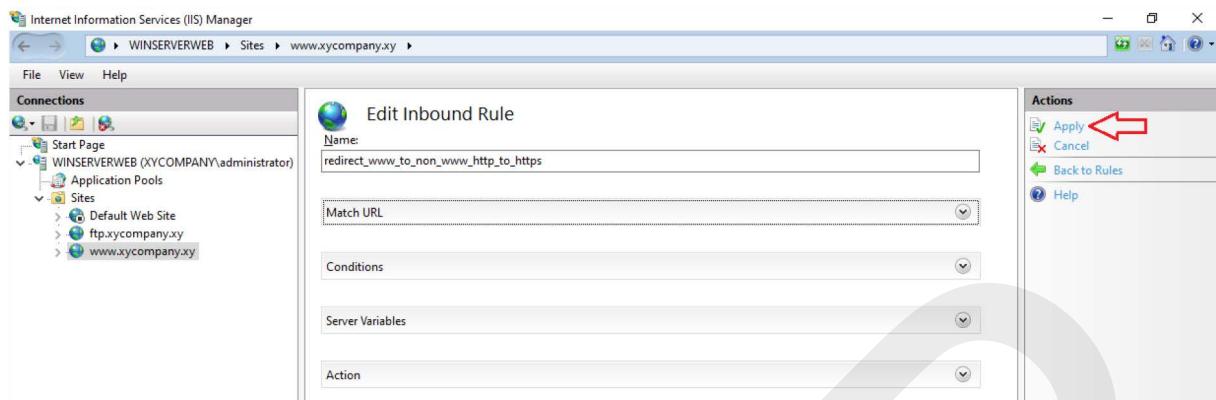
Action type: **Redirect** 

**Action Properties**

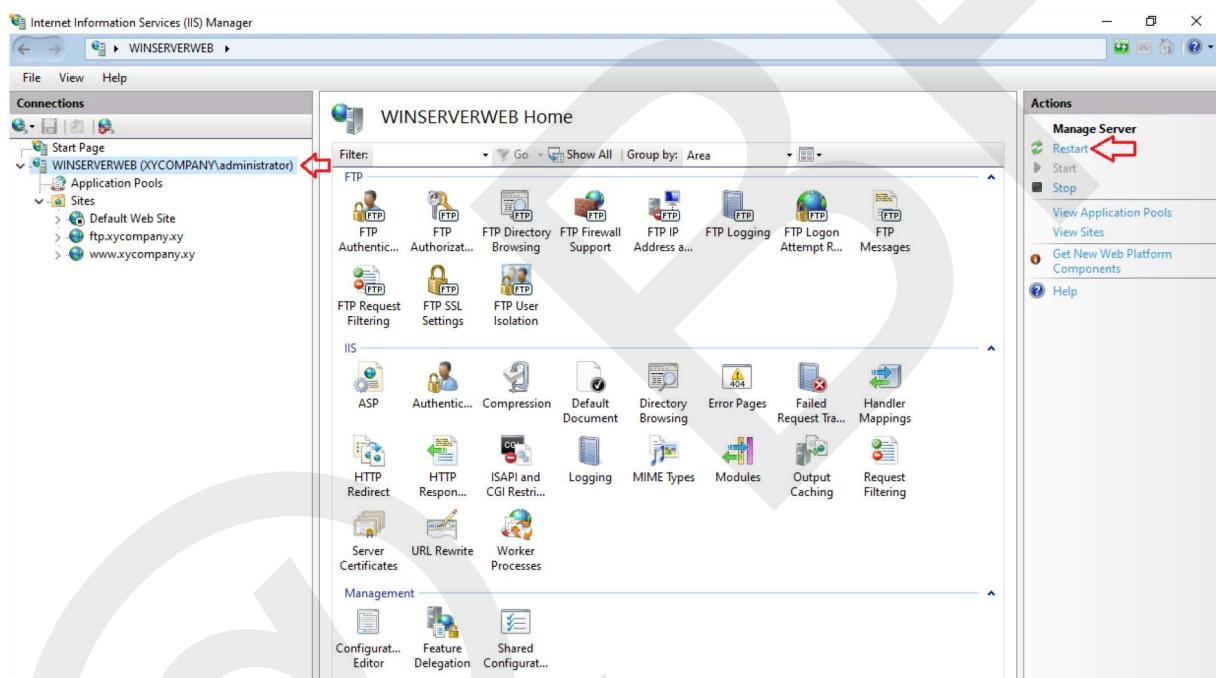
Redirect URL: `https://\{C:2\} \{REQUEST_URI\}` 

Append query string

Redirect type: **Permanent (301)** 

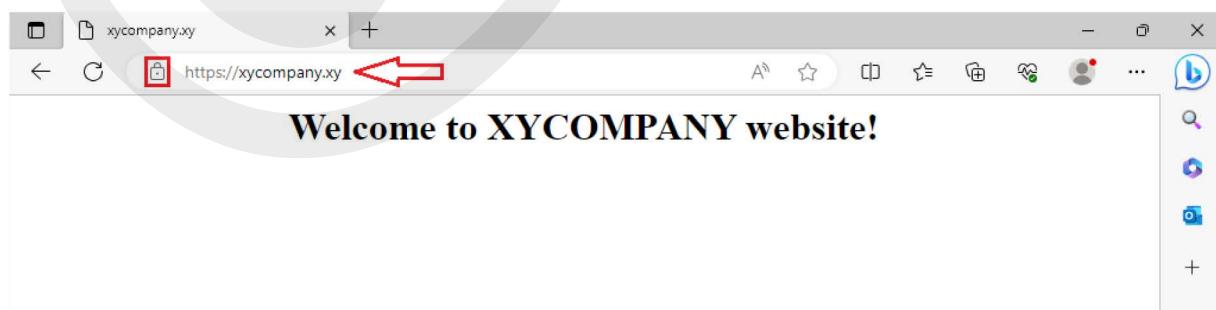


### Indítsuk újra a webszolgáltatásokat:

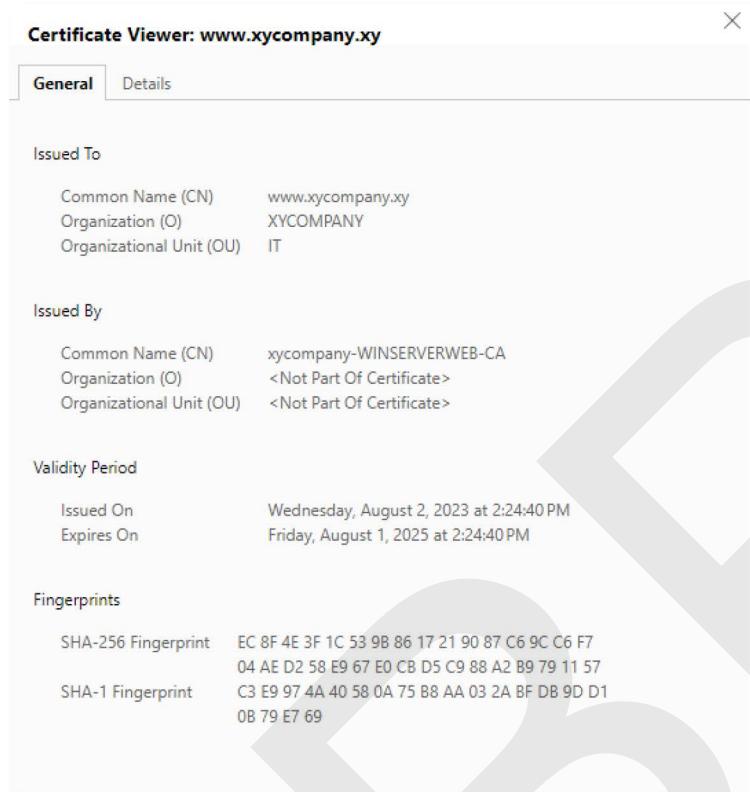


A Windows kliensen indítsunk egy böngészőt és nyissuk meg a weboldalunkat:

<http://www.xycompany.xy>



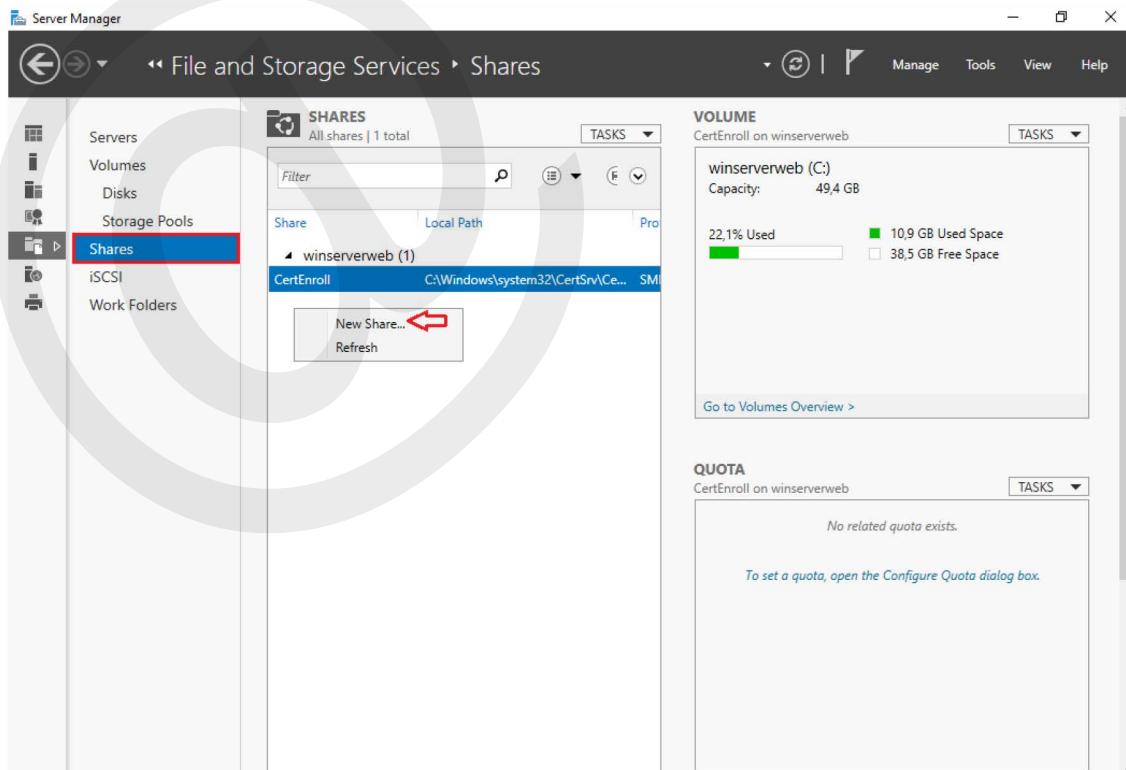
ha a weboldal nem jelenne meg előre, indítsuk újra a kliens virtuális gépet

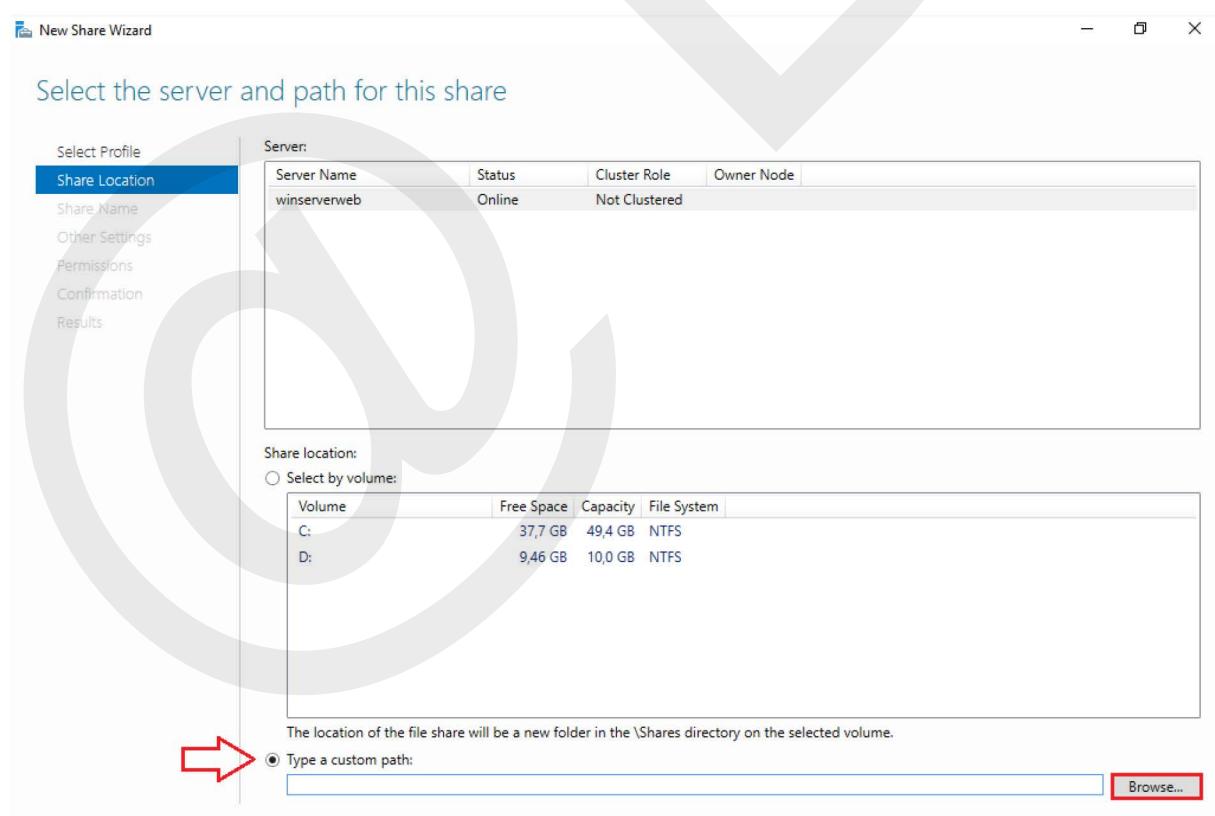
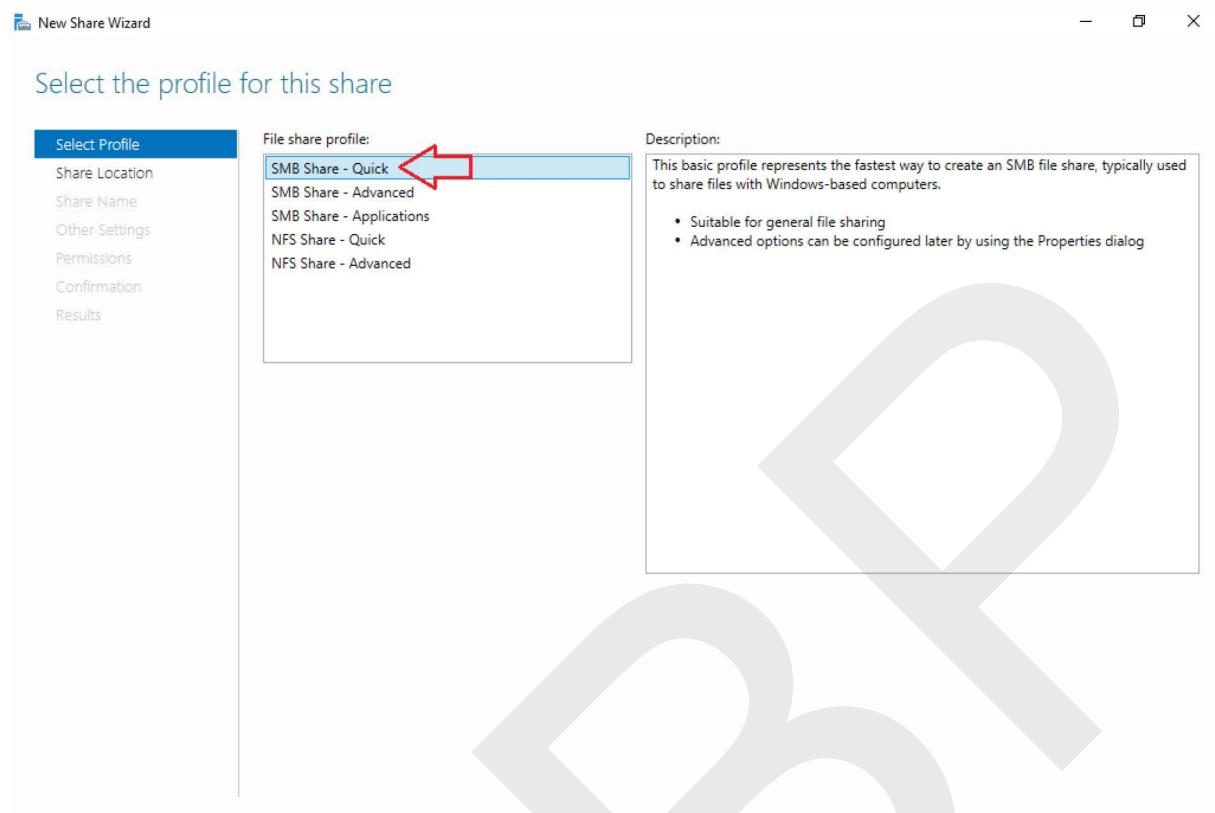


a zárt lakatra kattintva megtekinthetjük az érvényes tanúsítványunkat

## 6.7 Megosztott mappák létrehozása

winserverweb szerver → Server Manager/File and Storage Services/Shares





### Hozzuk létre az alábbi mappastruktúrát a shares (D:) meghajtón:

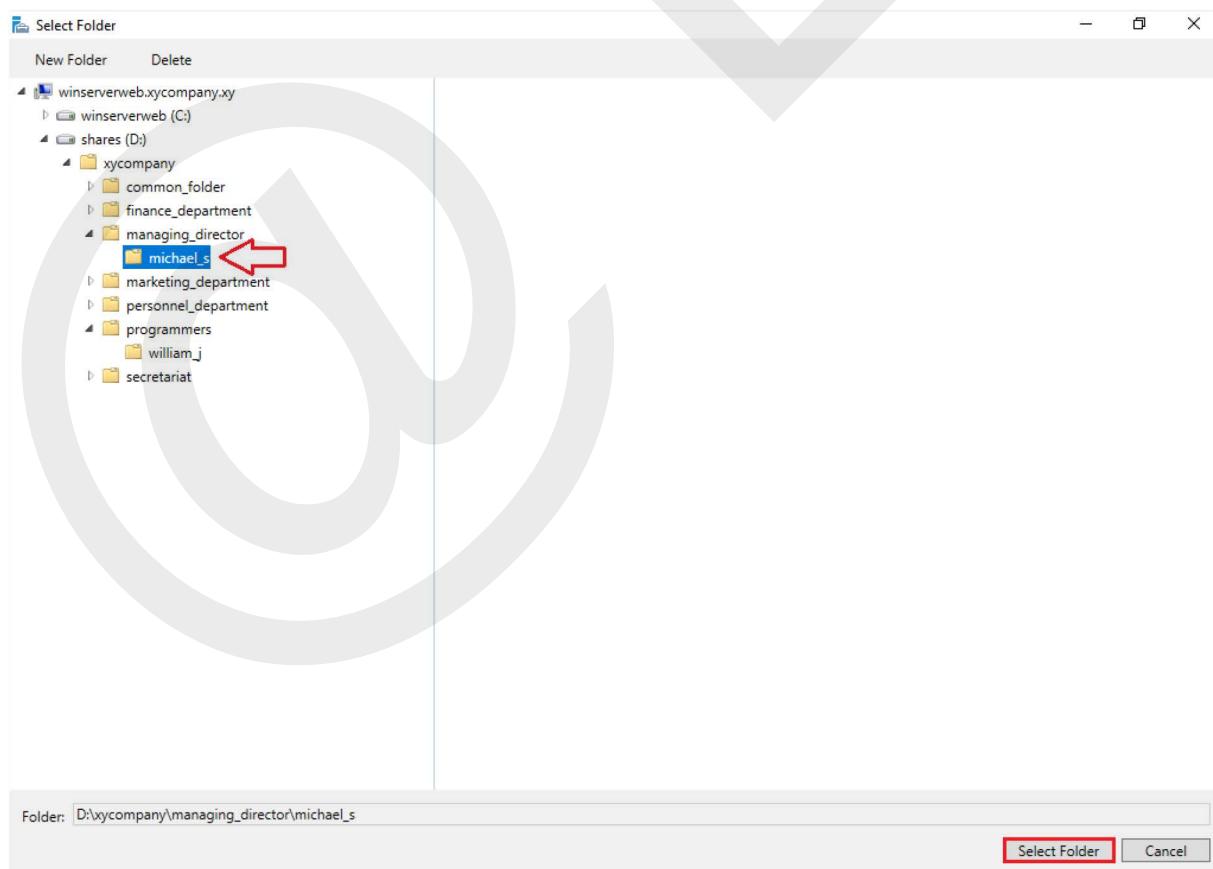
```

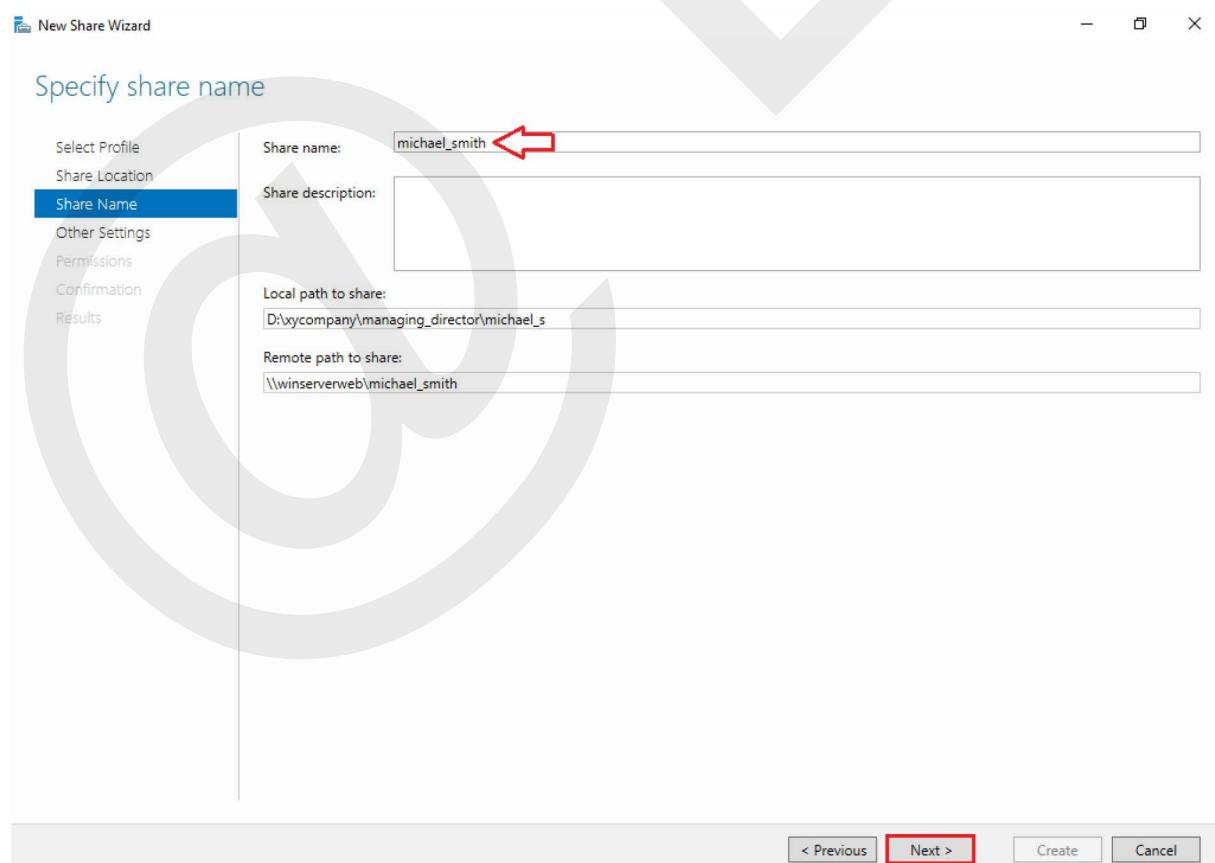
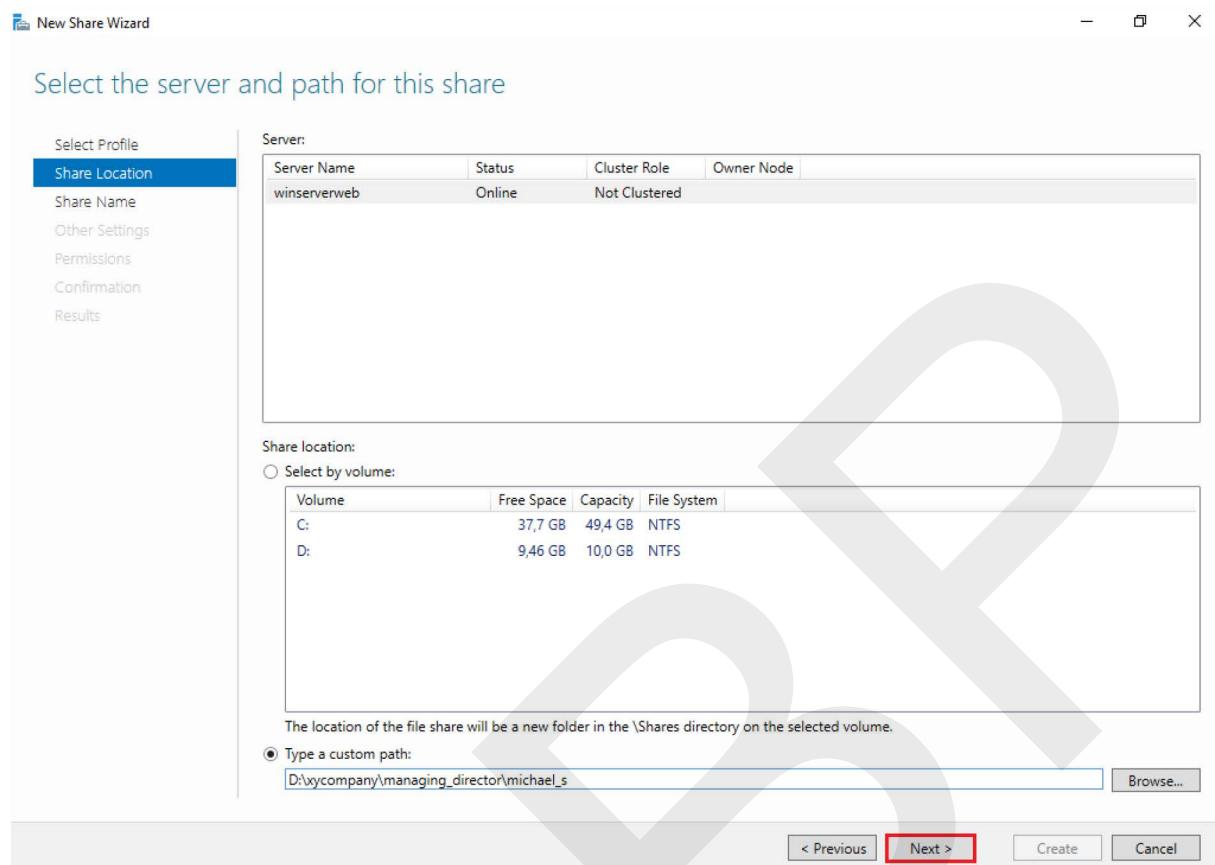
xycompany
  common_folder
  finance_department
  managing_director
    michael_s
  marketing_department
  personnel_department
  programmers
    william_j
  secretariat

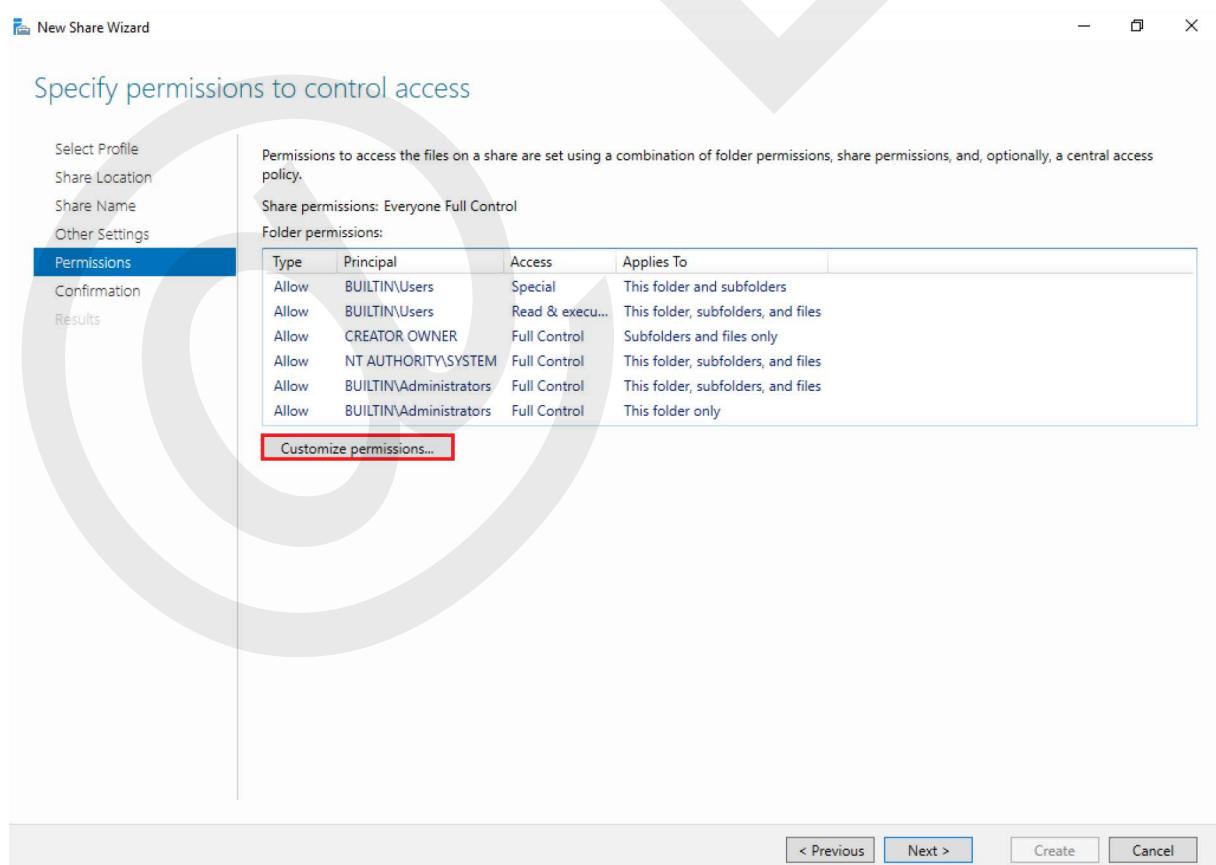
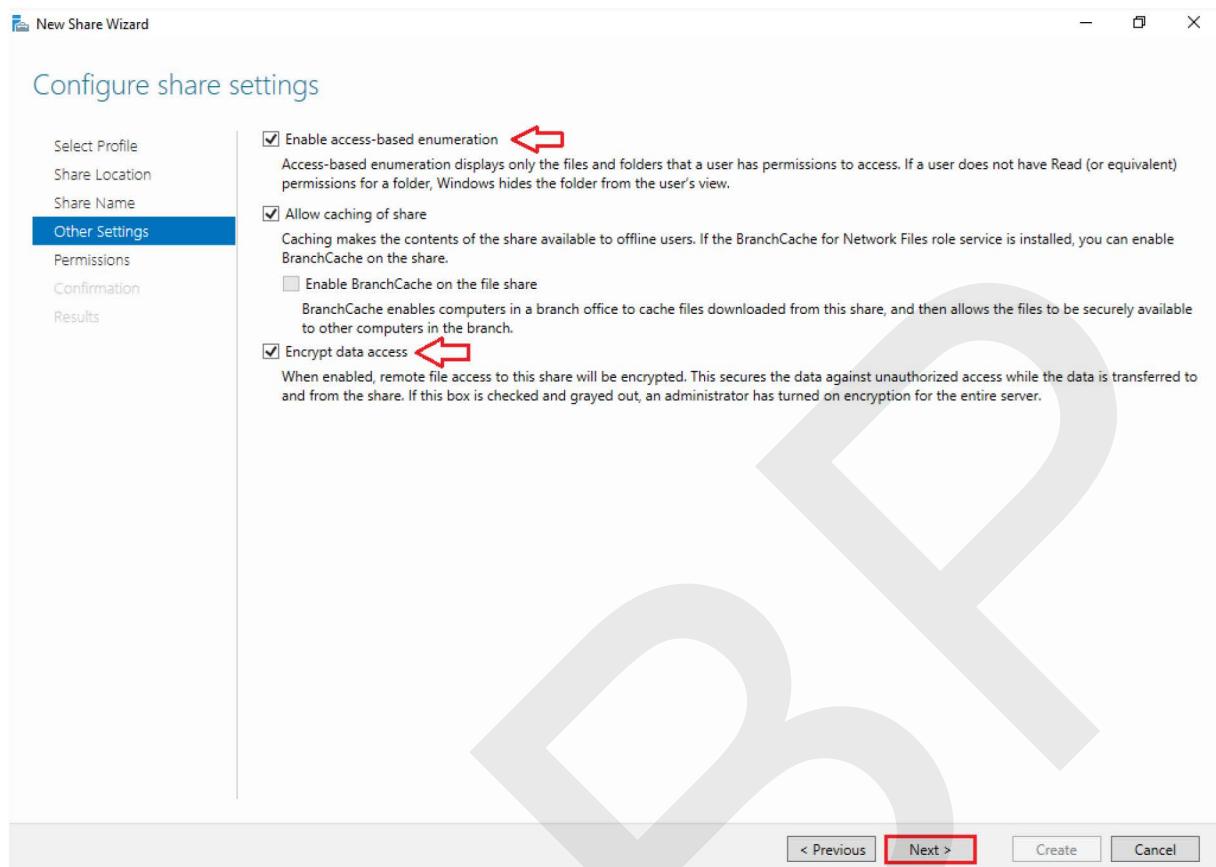
```

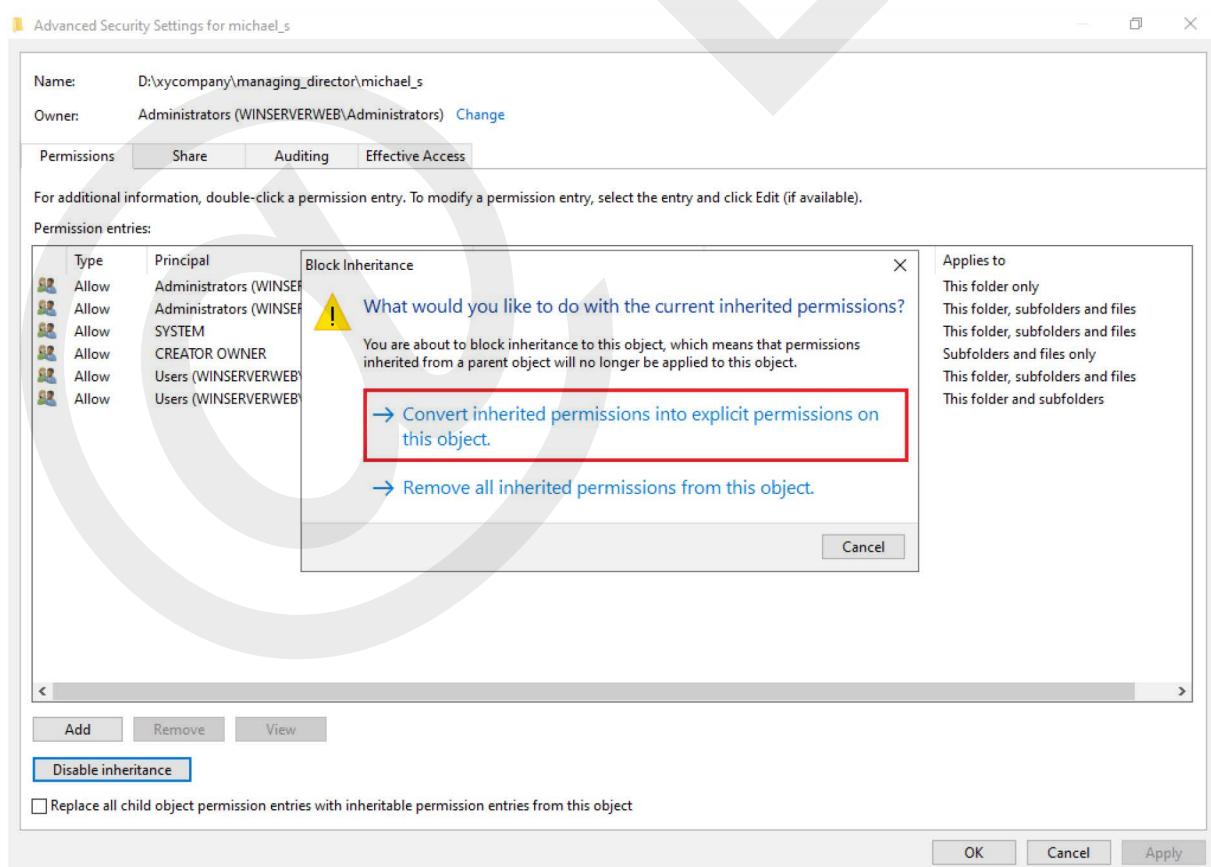
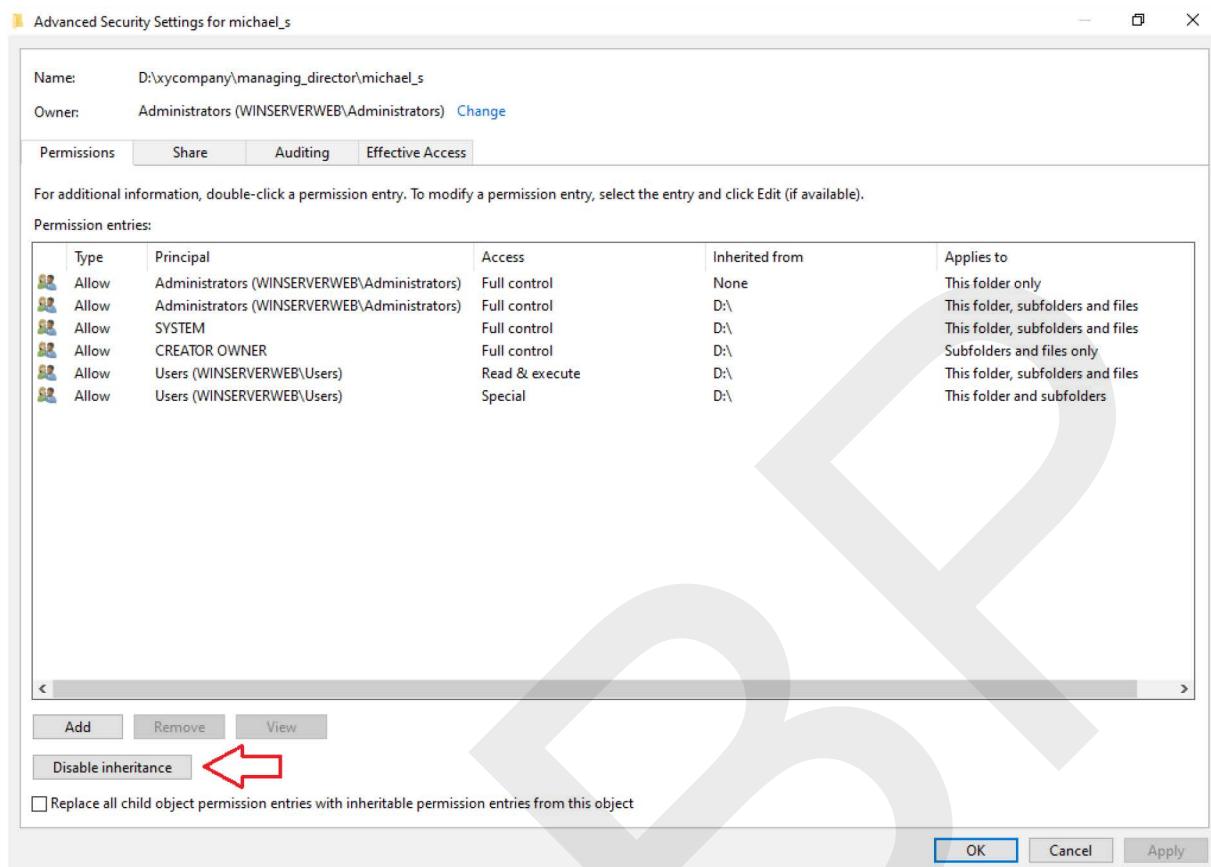
### Állítsuk be a megosztást és a jogosultságokat a felhasználói mappákhoz:

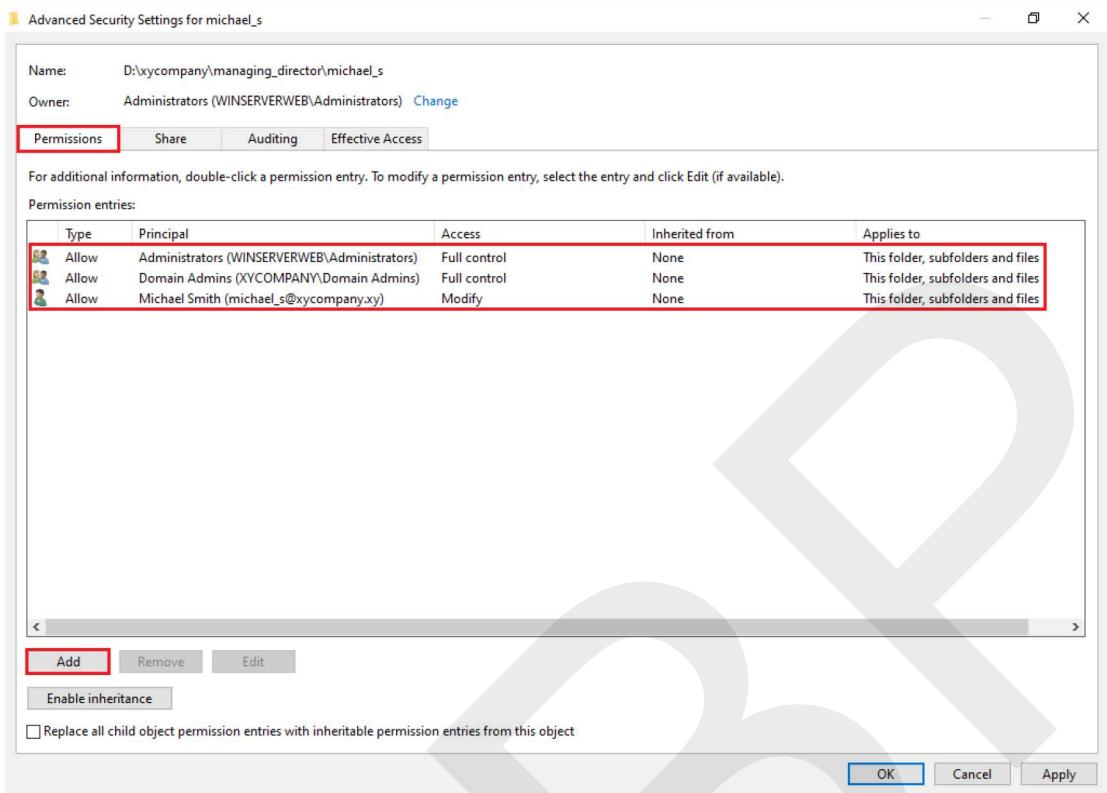
A felhasználó saját mappájához az adott felhasználónak „modify” jogosultsága lesz, a lokális és tartományi adminisztrátornak pedig teljes hozzáférés. A közös mappához (common\_folder) minden tartományi felhasználónak „modify” jogosultsága lesz, a lokális és tartományi adminisztrátornak pedig teljes hozzáférés. A felhasználóknak egymás mappáihoz nincs hozzáférési jogosultságuk.



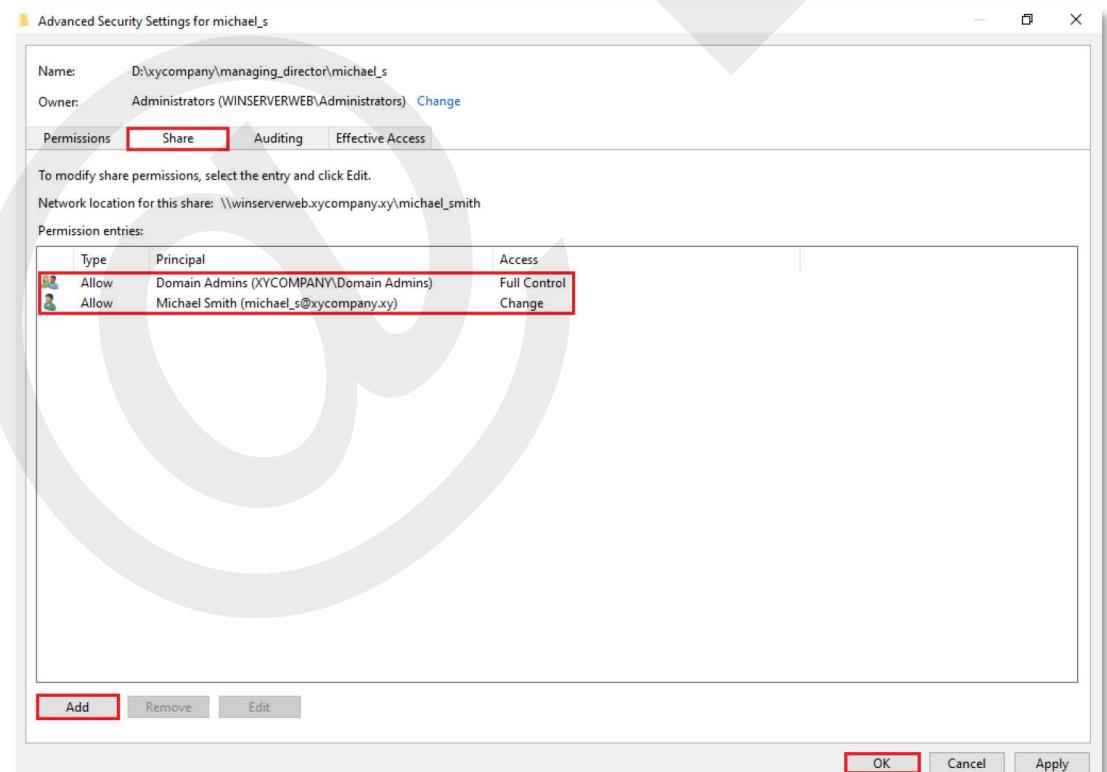




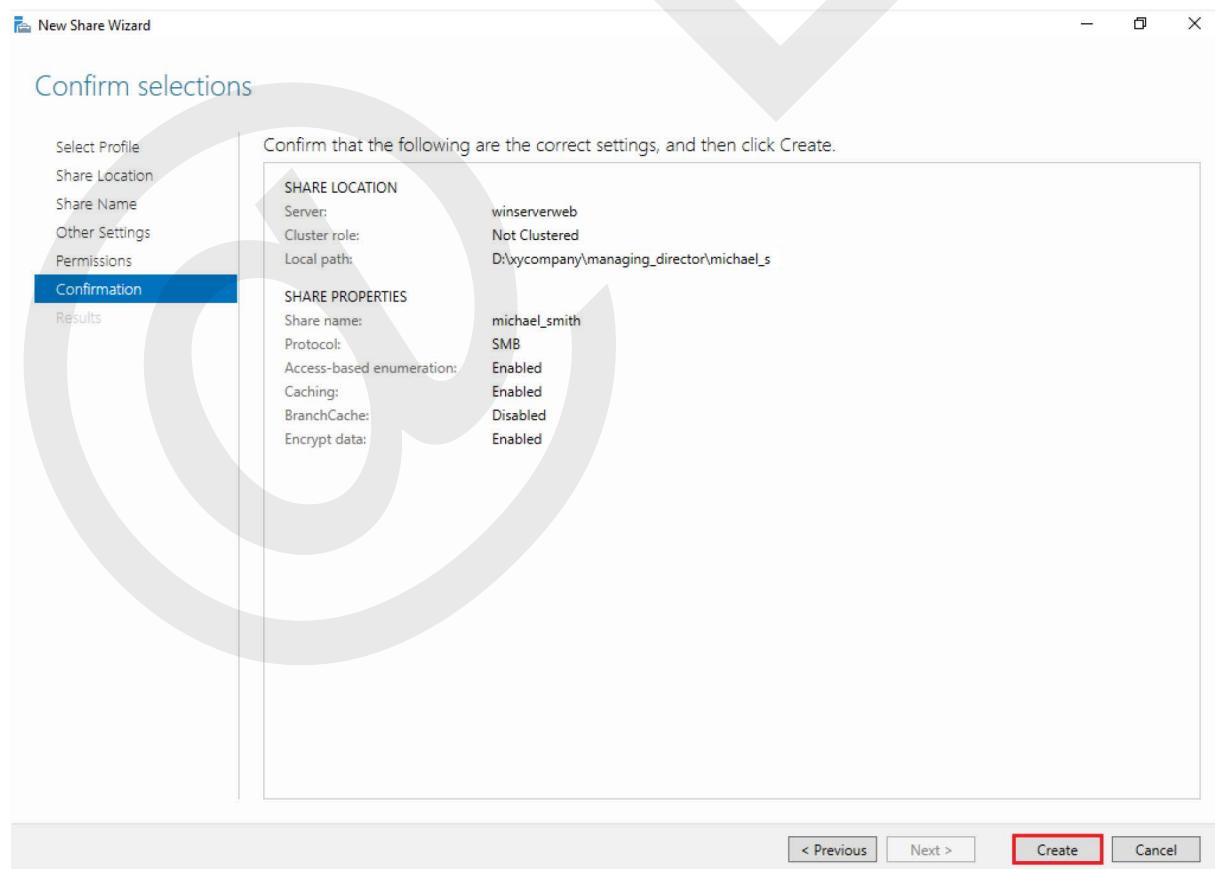
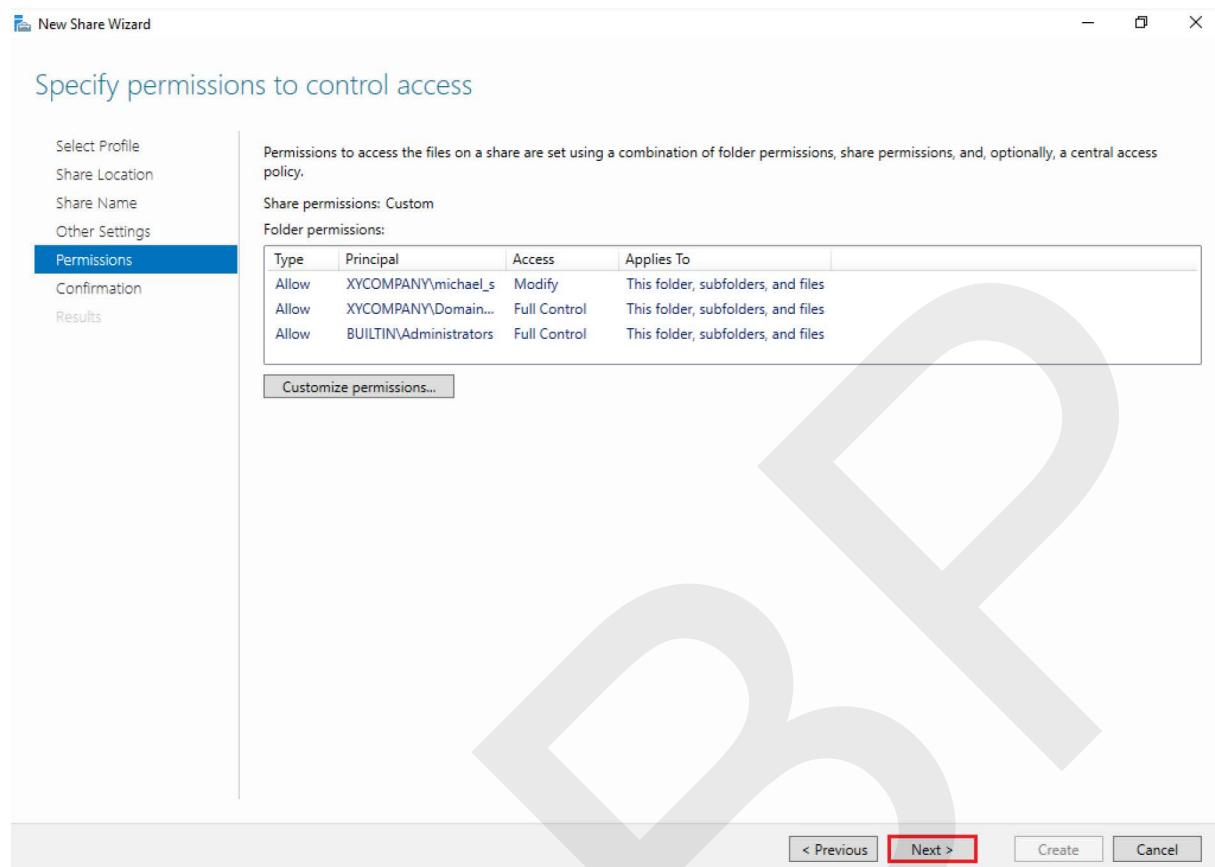


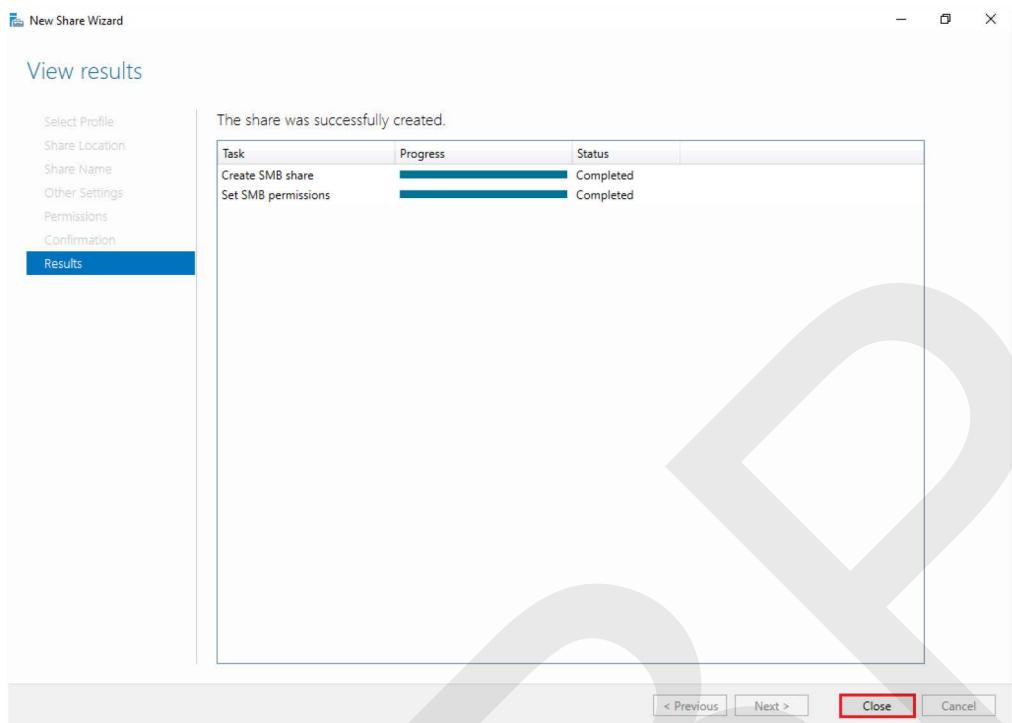


a nem szükséges csoportokat töröljük a jogosultsági listából (Remove) és az „Add → Select a Principal” segítségével adjuk hozzá a „Domain Admins” csoportot „Full control” jogosultsággal és az adott felhasználót „Modify” jogosultsággal



a „Share” fülön töröljük az „Everyone” csoportot, és adjuk hozzá a „Domain Admins” csoportot teljes joggal, valamit az adott felhasználót „Change” joggal

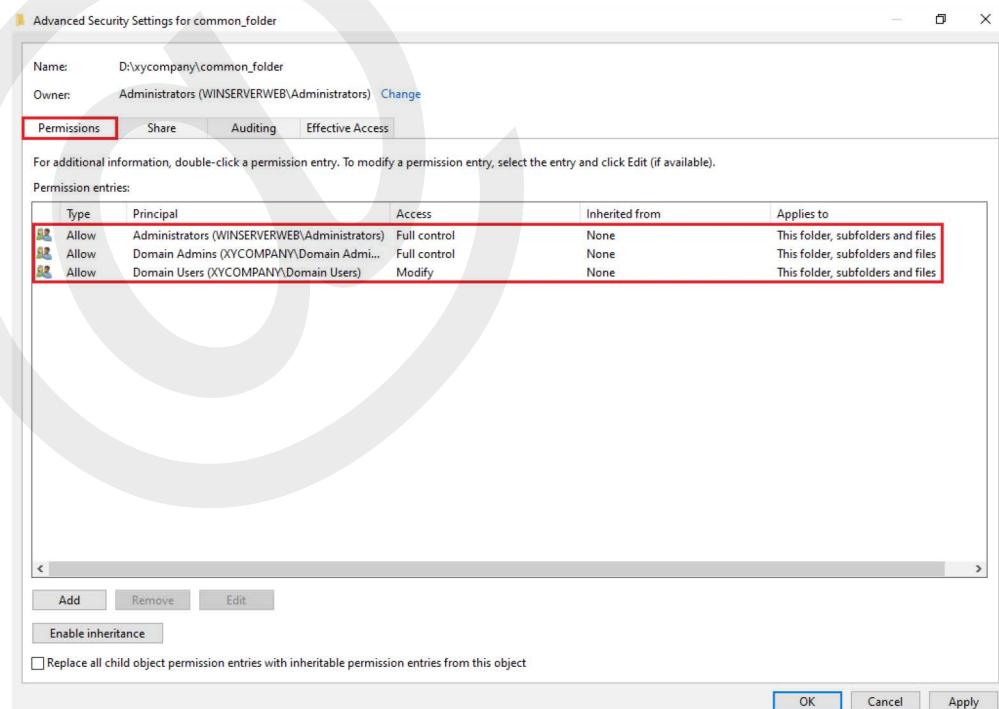




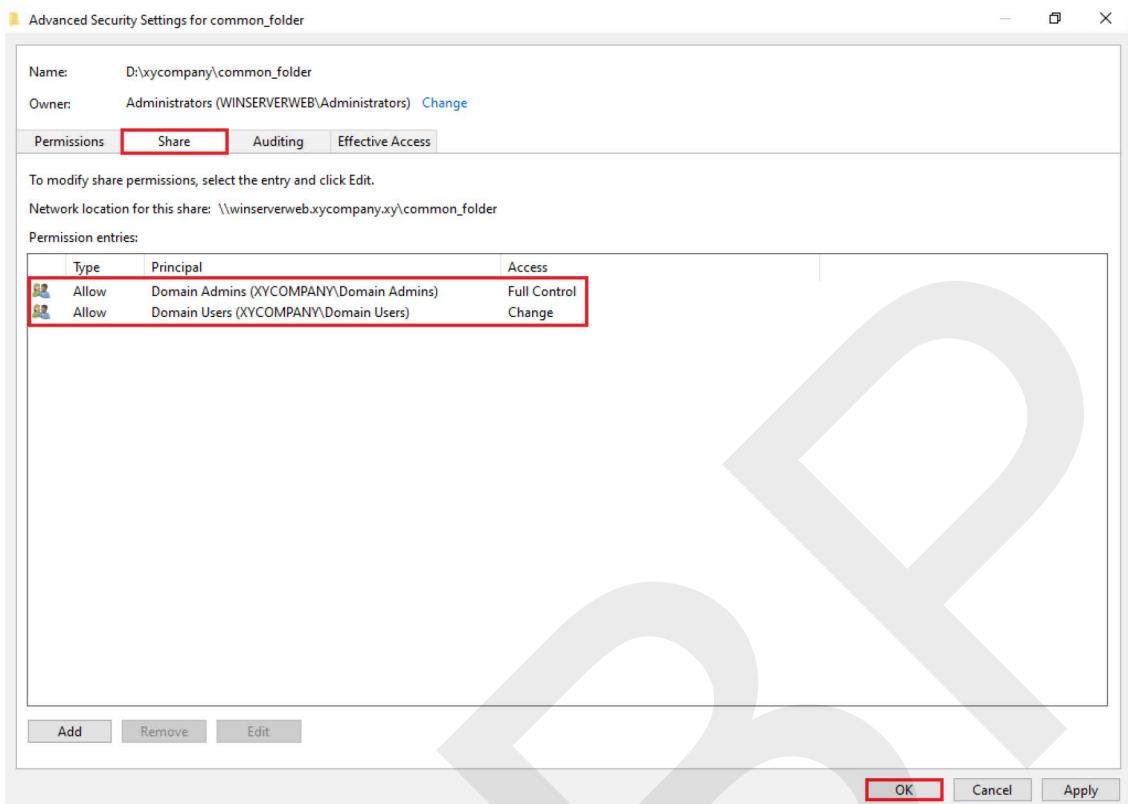
**A többi felhasználó megosztott mappáját a fentieknek megfelelően konfiguráljuk!**

**Közös mappa (common\_folder) jogosultságának beállítása:**

A jogosultság beállításáig a folyamat ugyanaz, mint a felhasználók saját mappái esetében, a jogosultságokat a következőképpen állítsuk be:

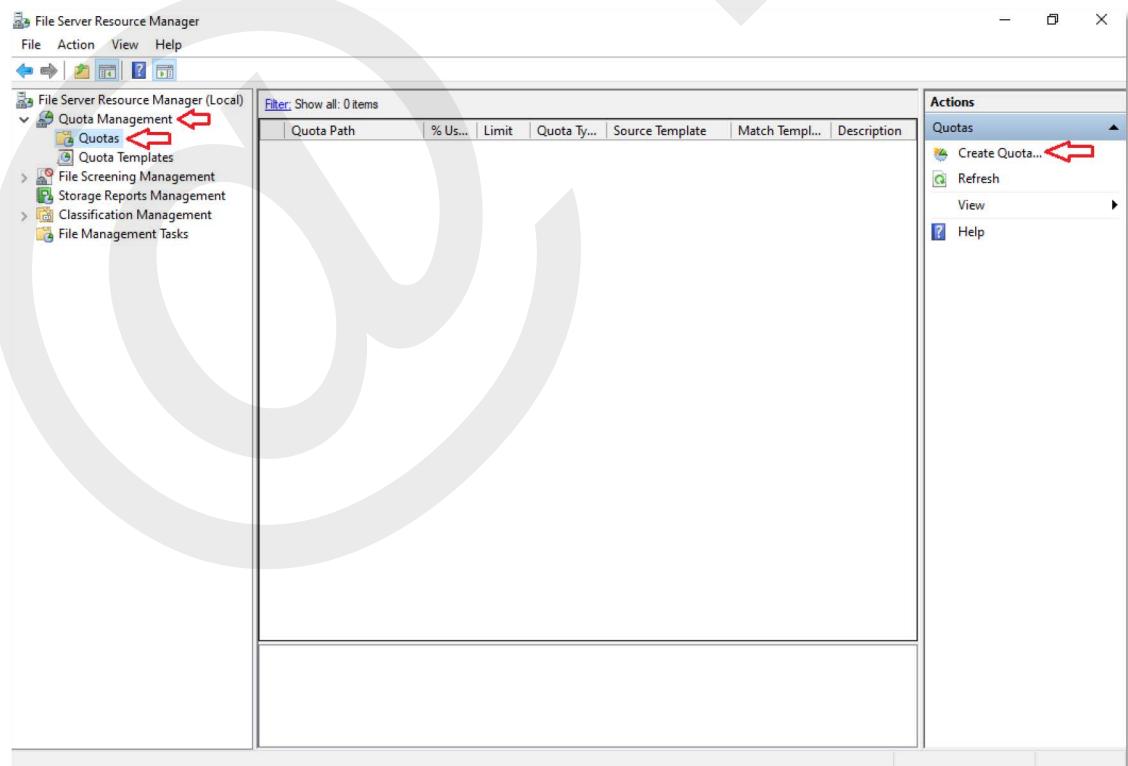


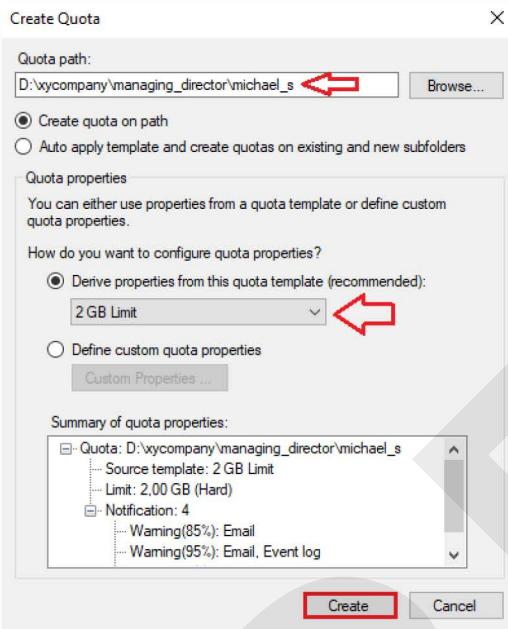
az öröklődést „disable inheritance” tiltsuk le



## 6.8 Kvóták konfigurálása, megosztott mappák felcsatolása a felhasználóknak

Server Manager → Tools → File Server Resource Manager

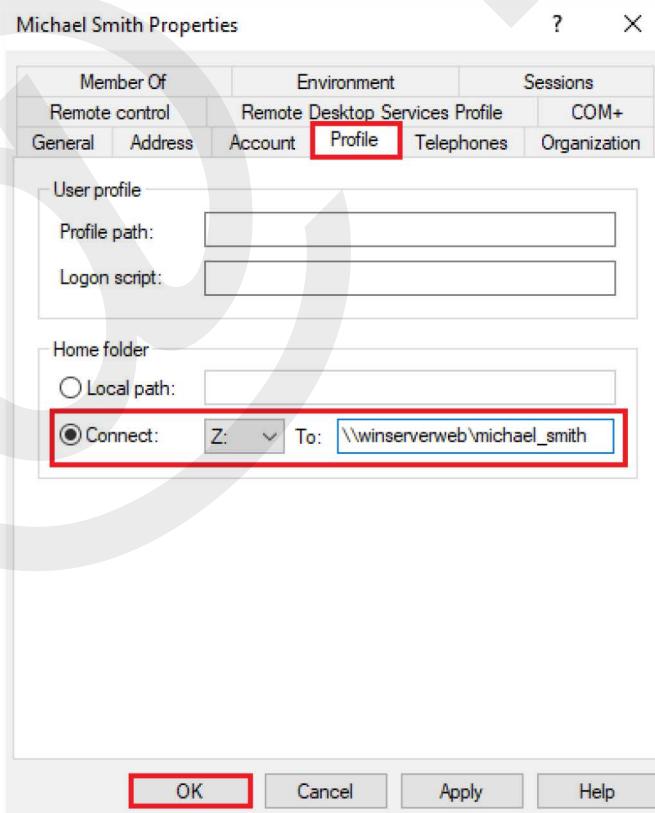
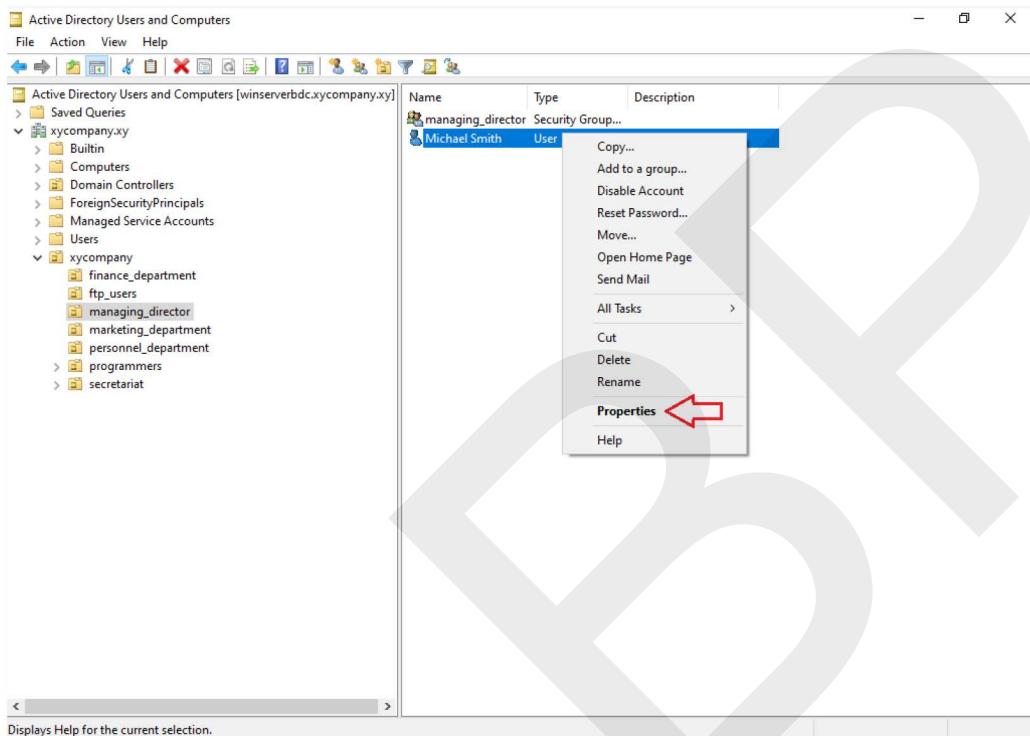


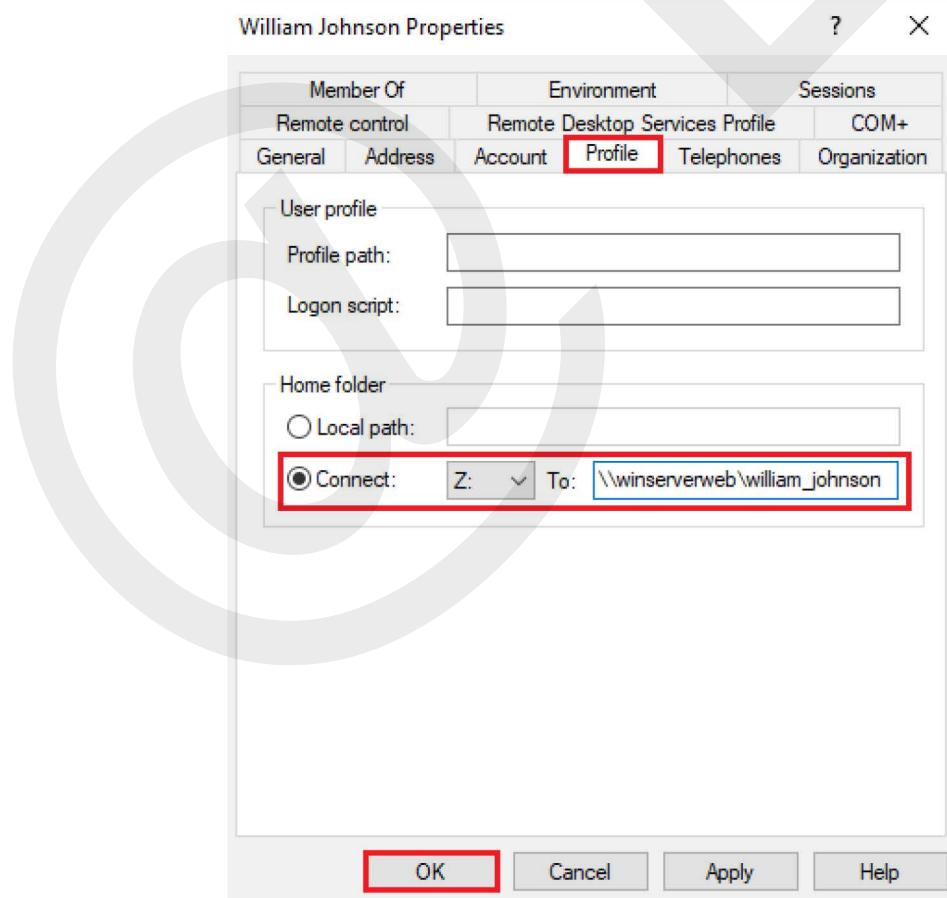
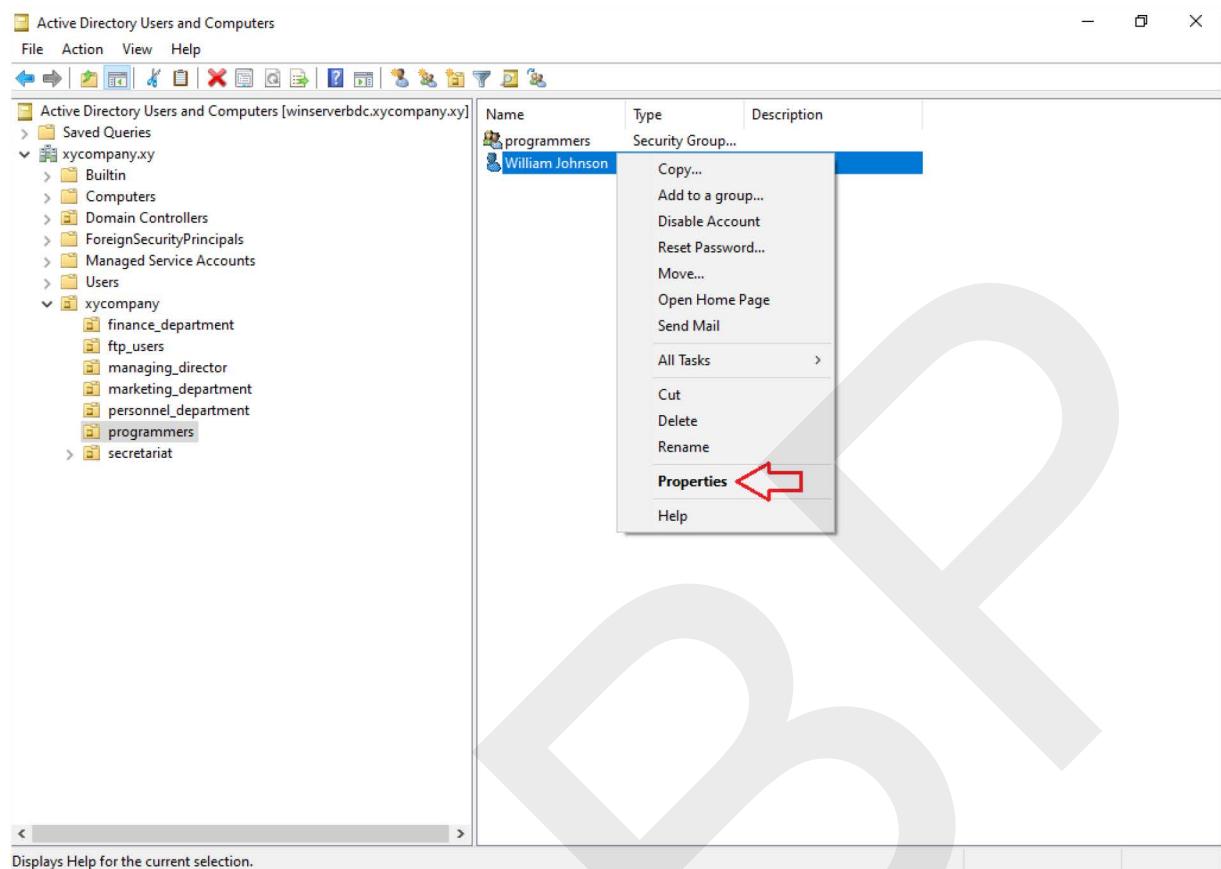


a többi felhasználónak is ugyanígy állítjuk be

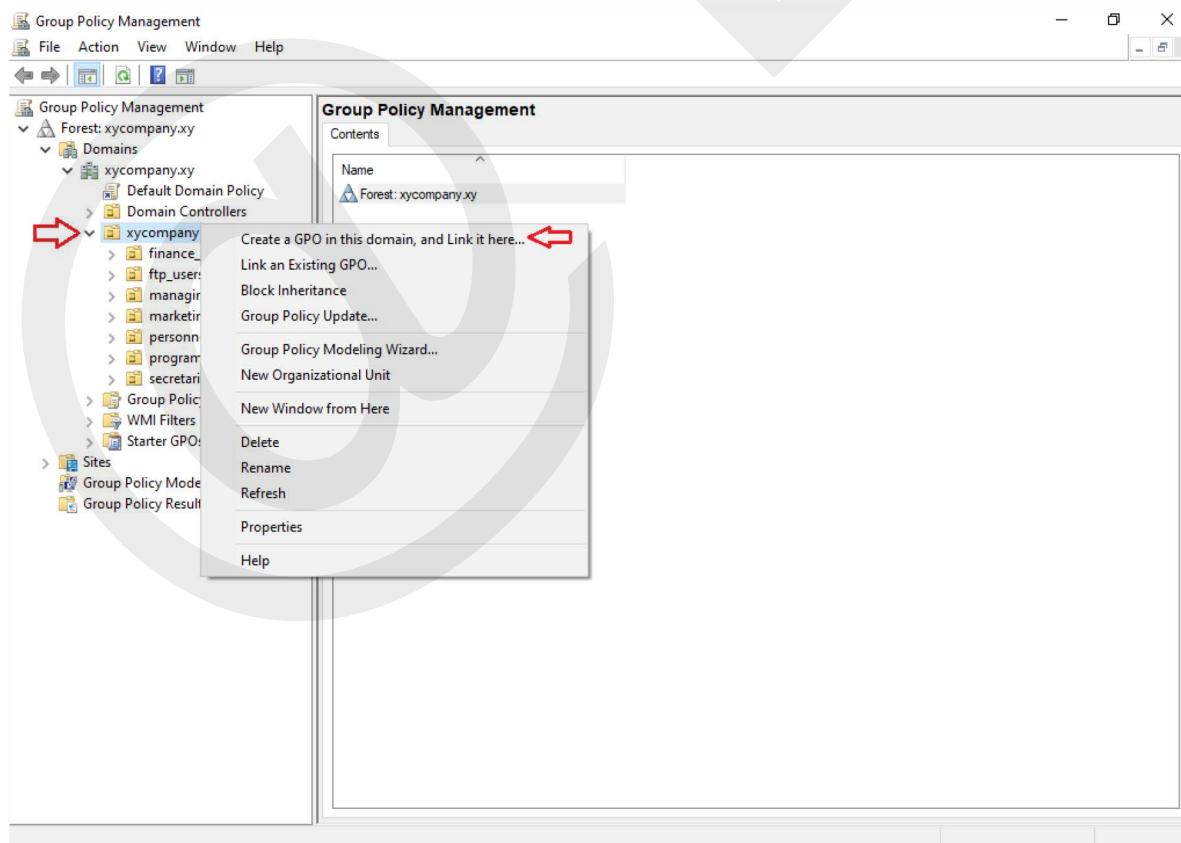
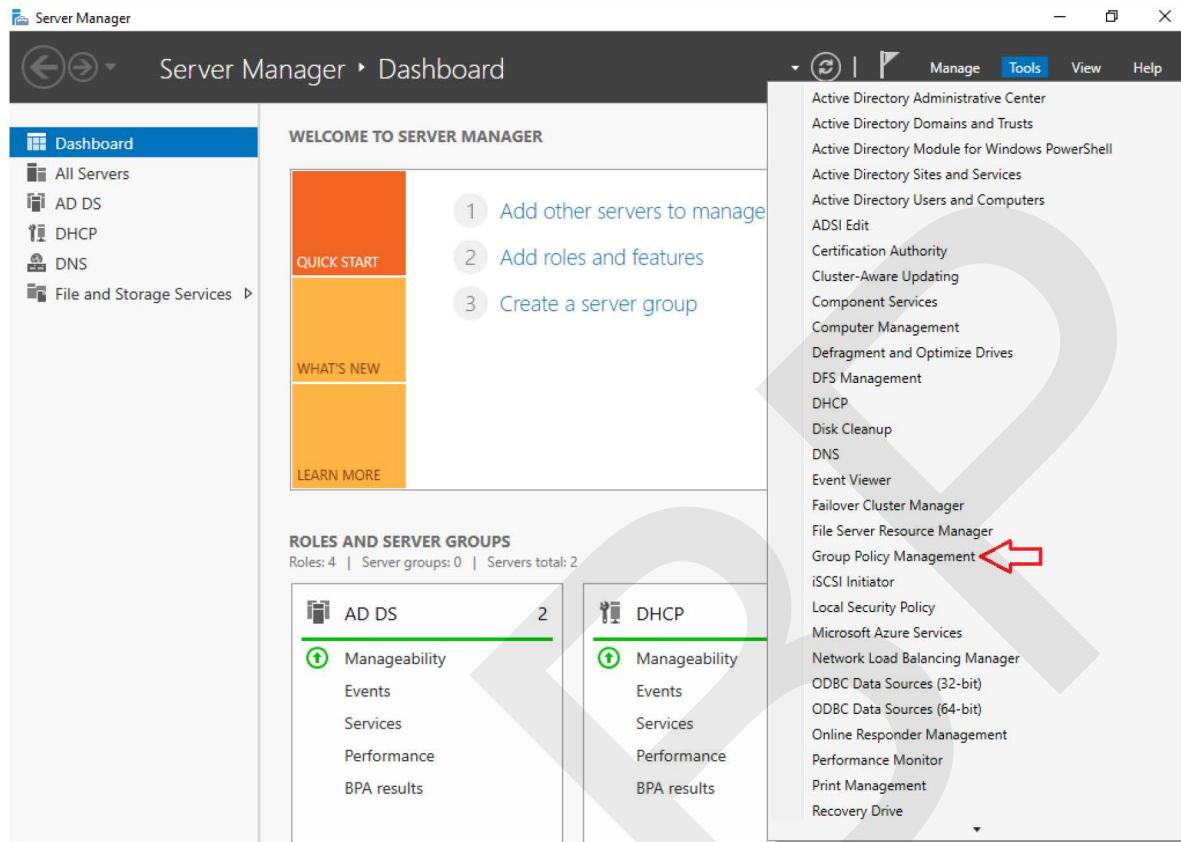
**Megosztott mappák felcsatolása a felhasználóknak:**

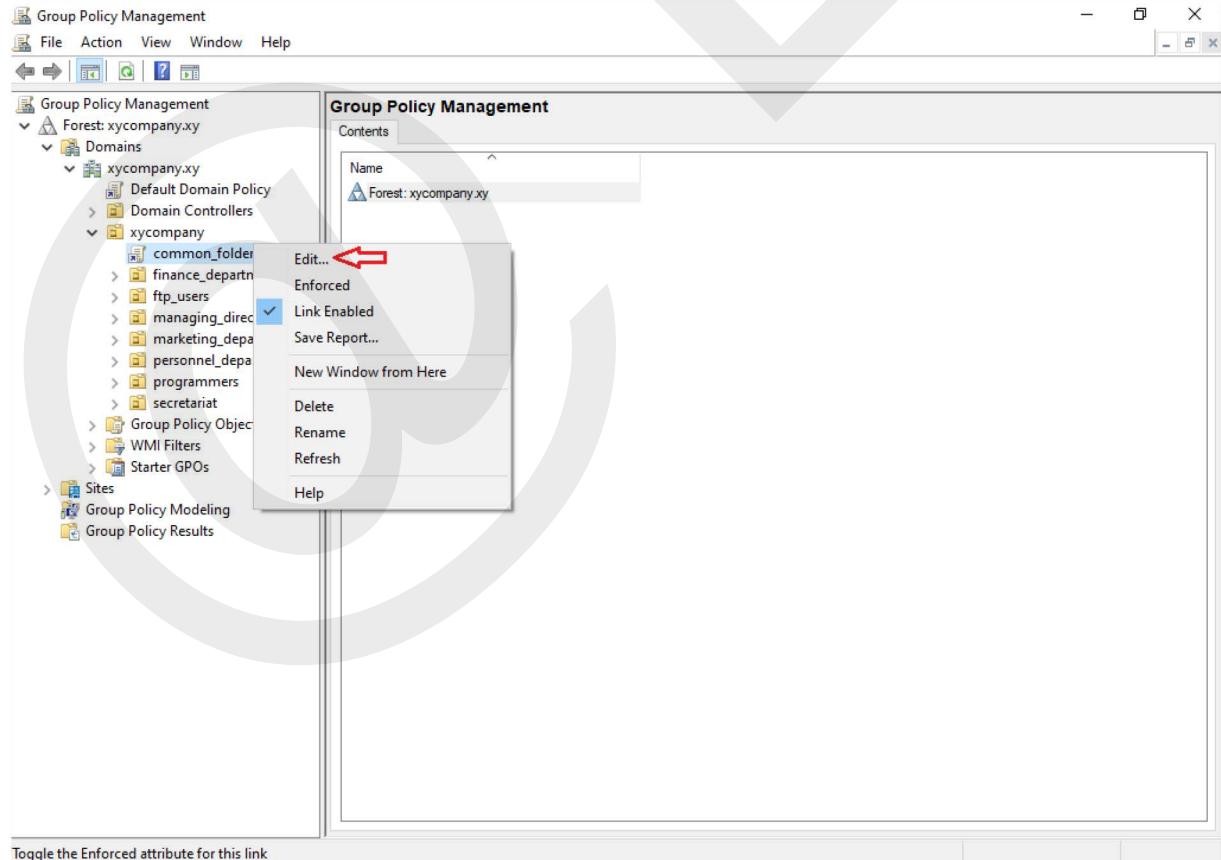
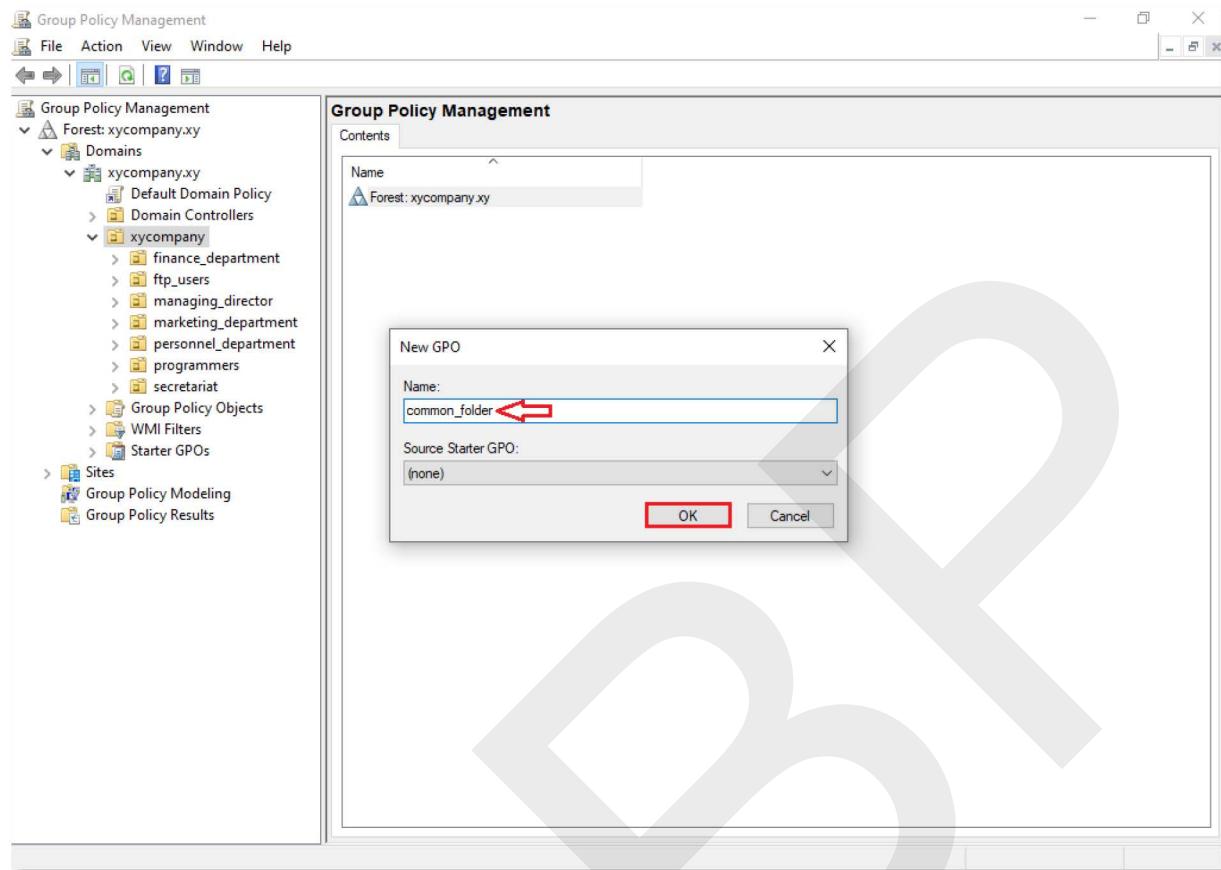
Windows kliens (**tartományi adminisztrátorral** bejelentkezve) → Server Manager → Active Directory Users and Computers:

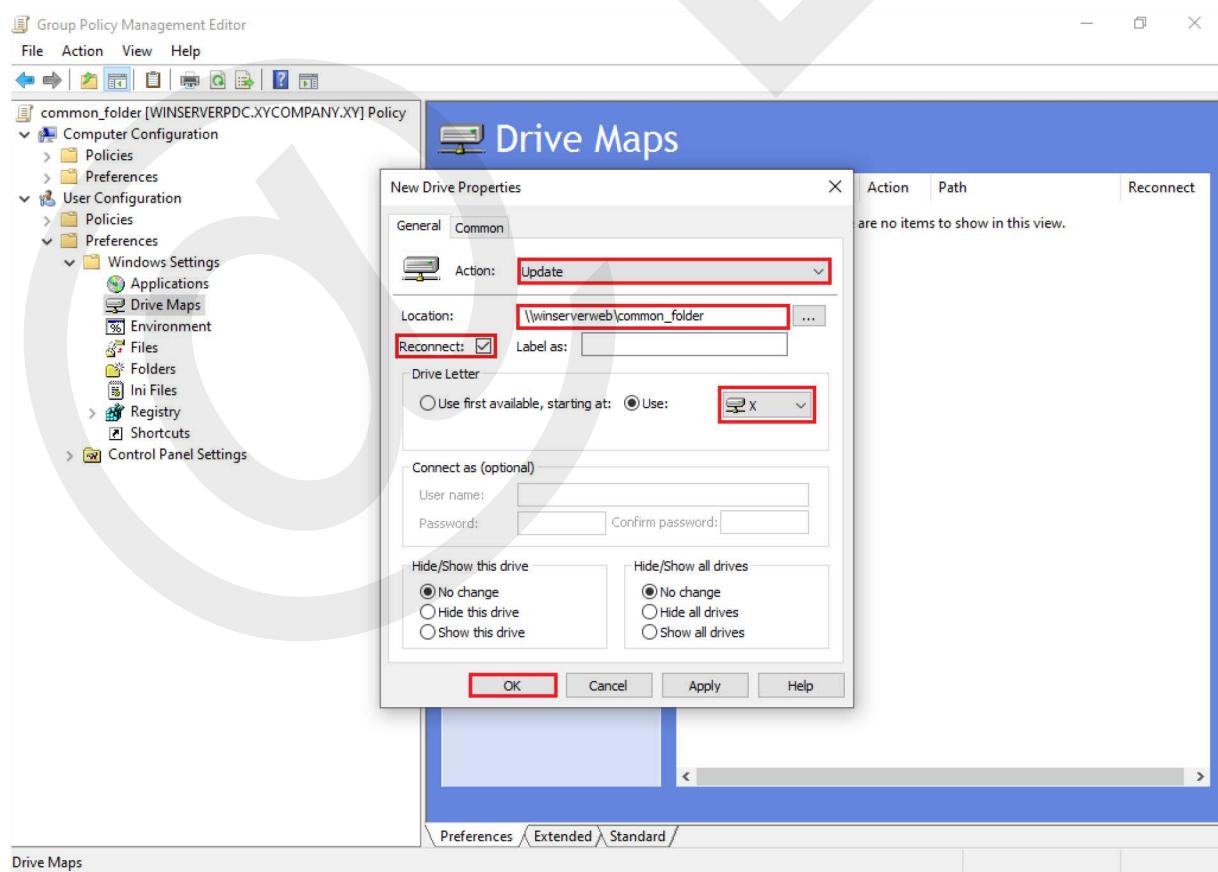
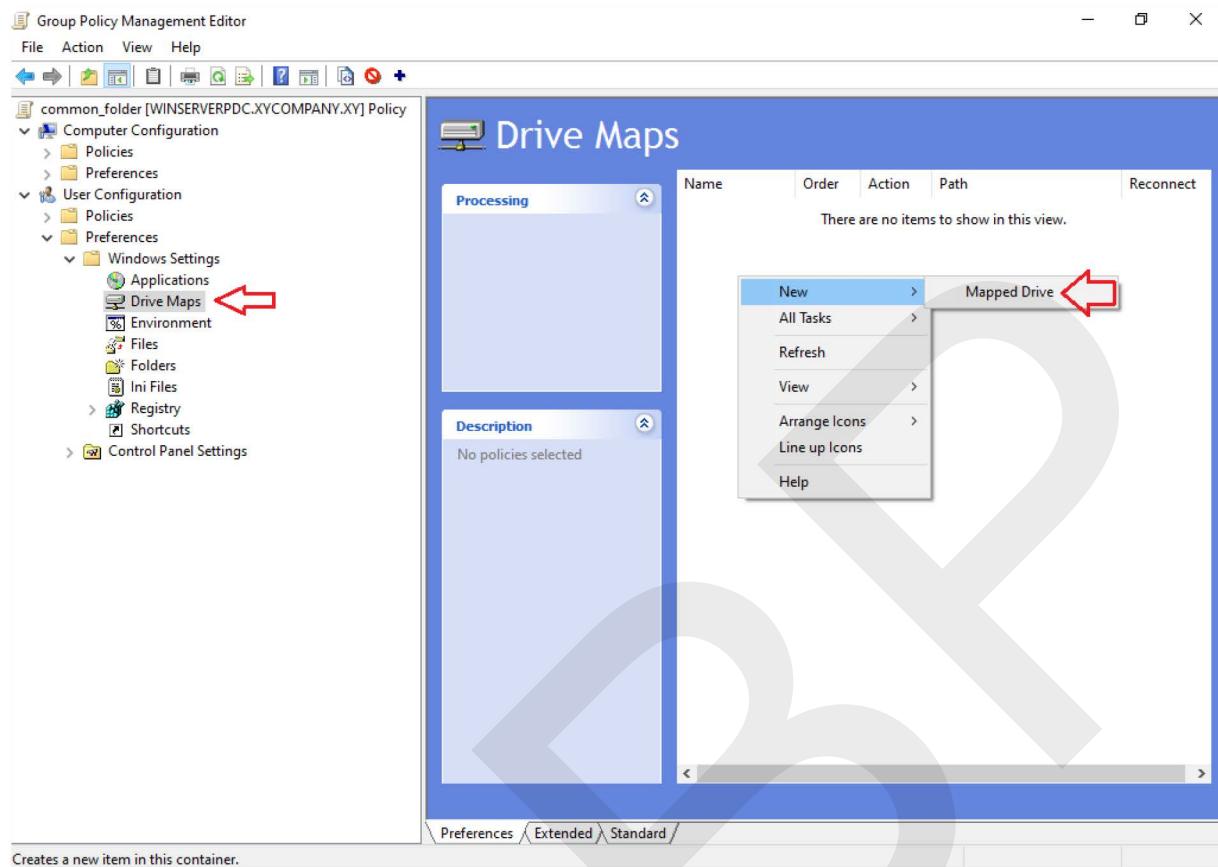


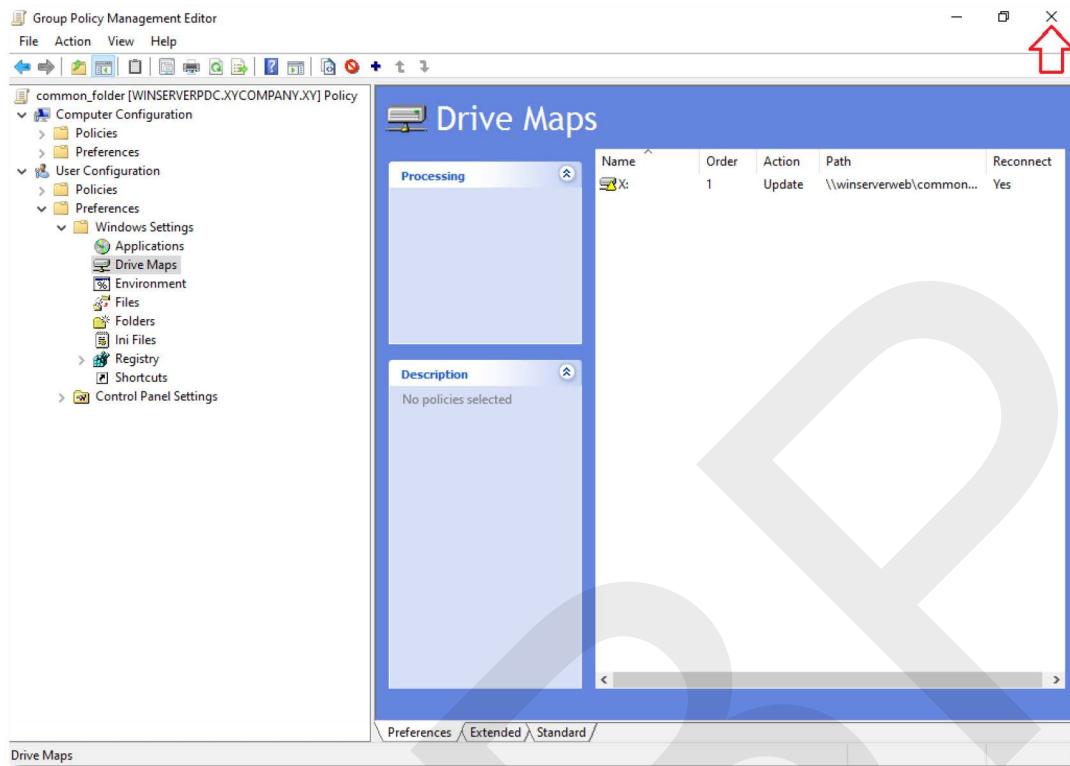


## A közös mappa felcsatolása az összes felhasználónak:



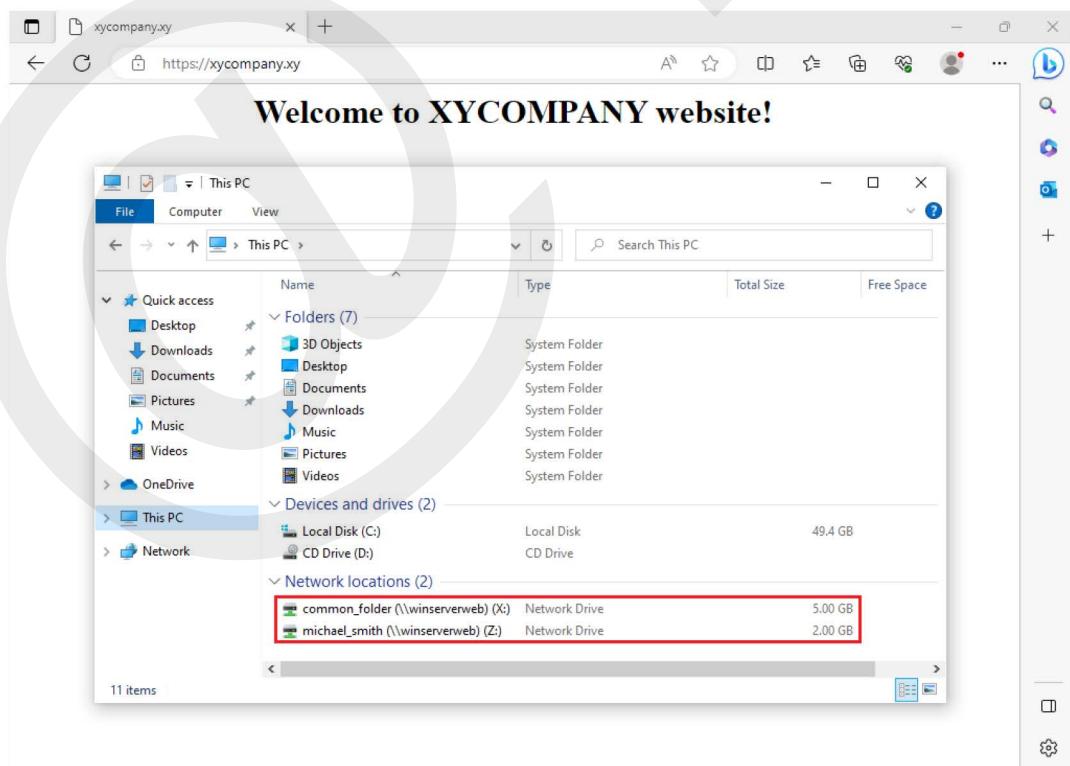






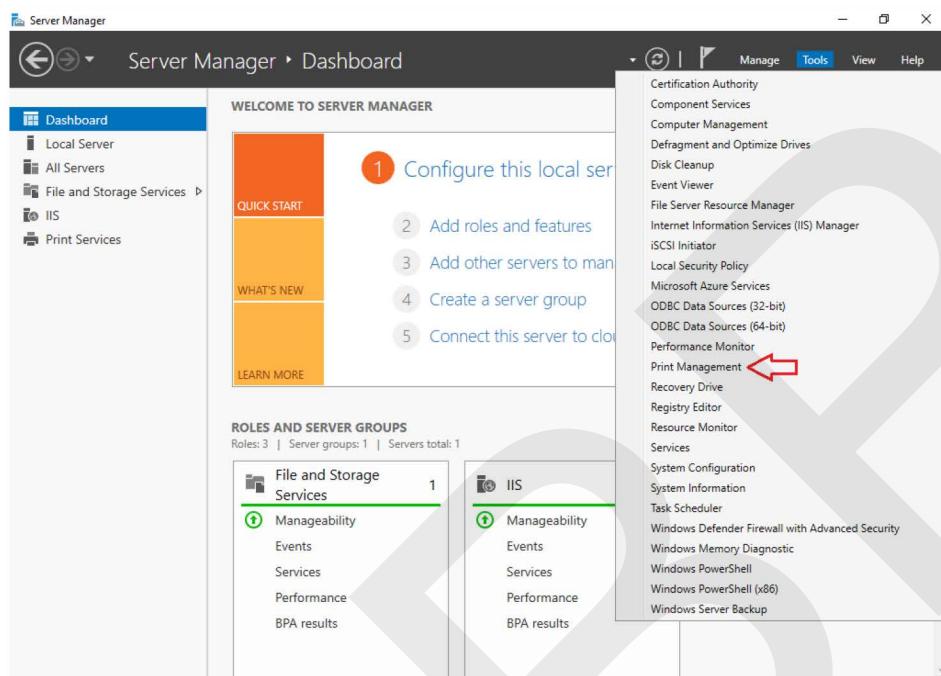
A **winserverpdc** szerveren a PowerShell-ben adjuk ki a következő parancsot: **gpupdate /force**

Indítsuk újra a Windows kliens virtuális gépet, és jelentkezzünk be egy az AD-ban létrehozott felhasználóval. **Ellenőrizzük a felcsatolt mappákat és a weboldal működését!**

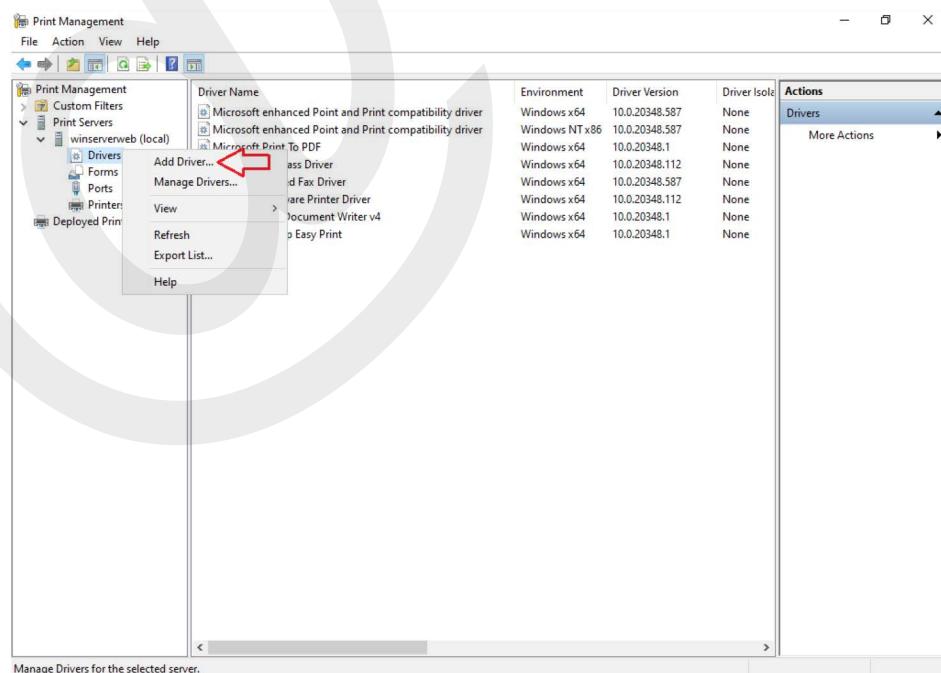


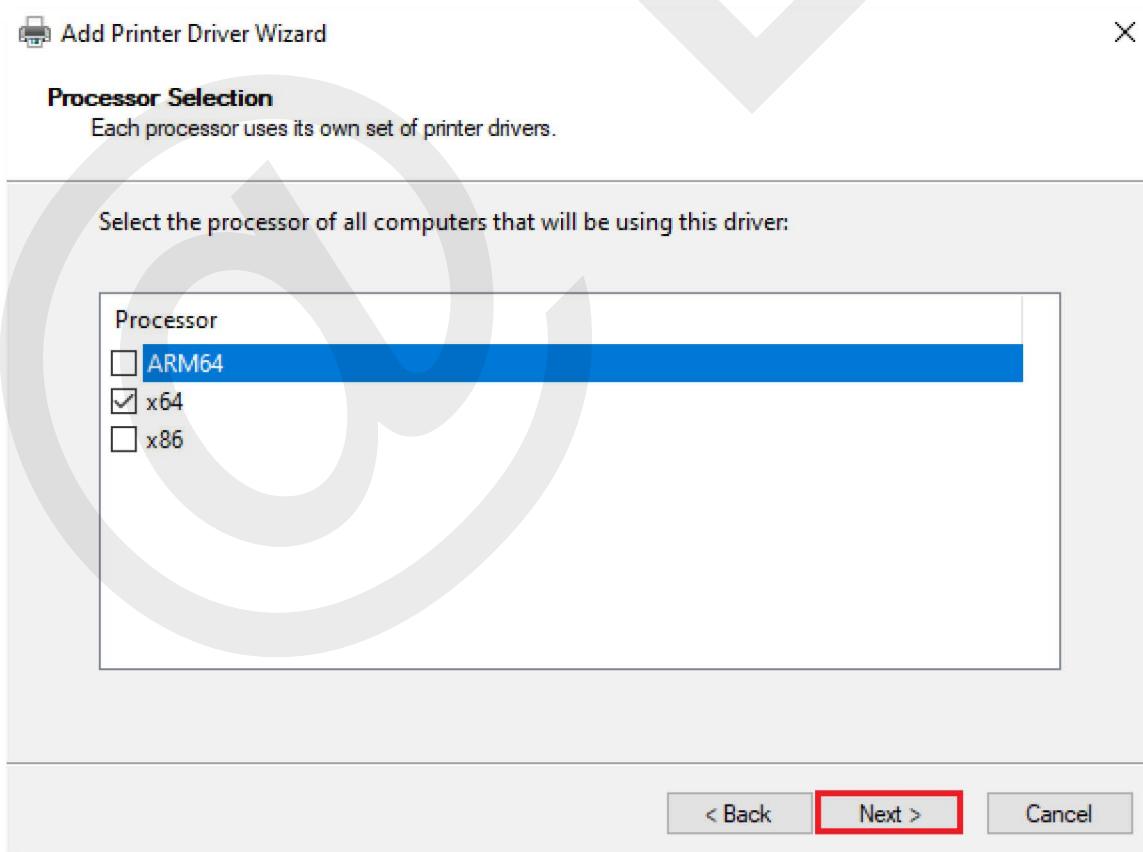
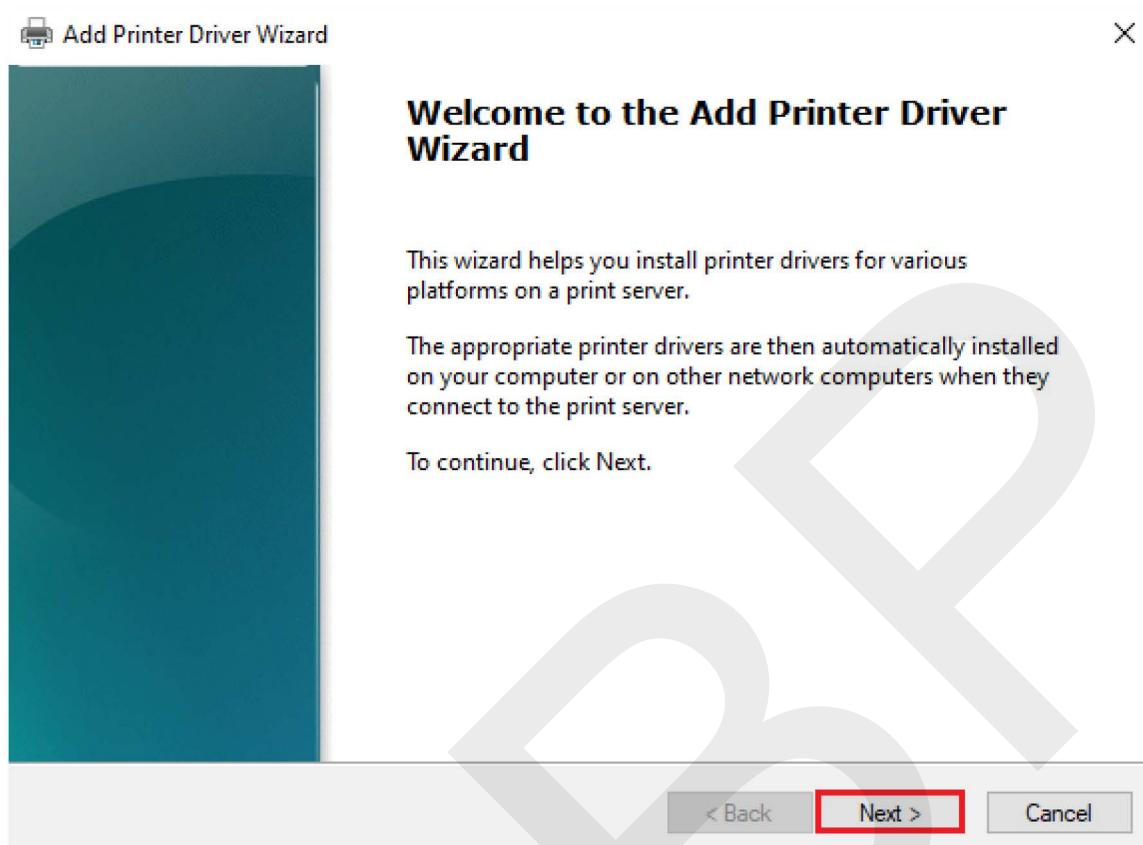
## 6.9 Nyomtatószerver konfigurálása

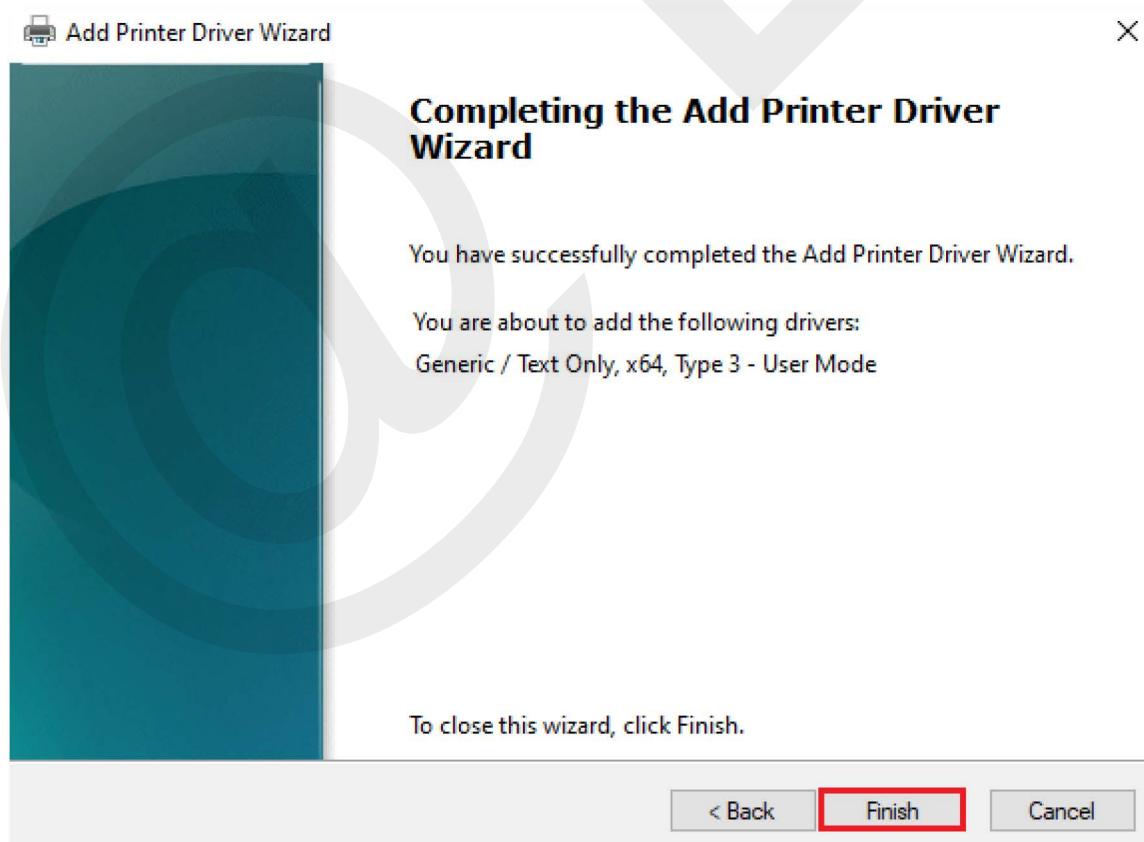
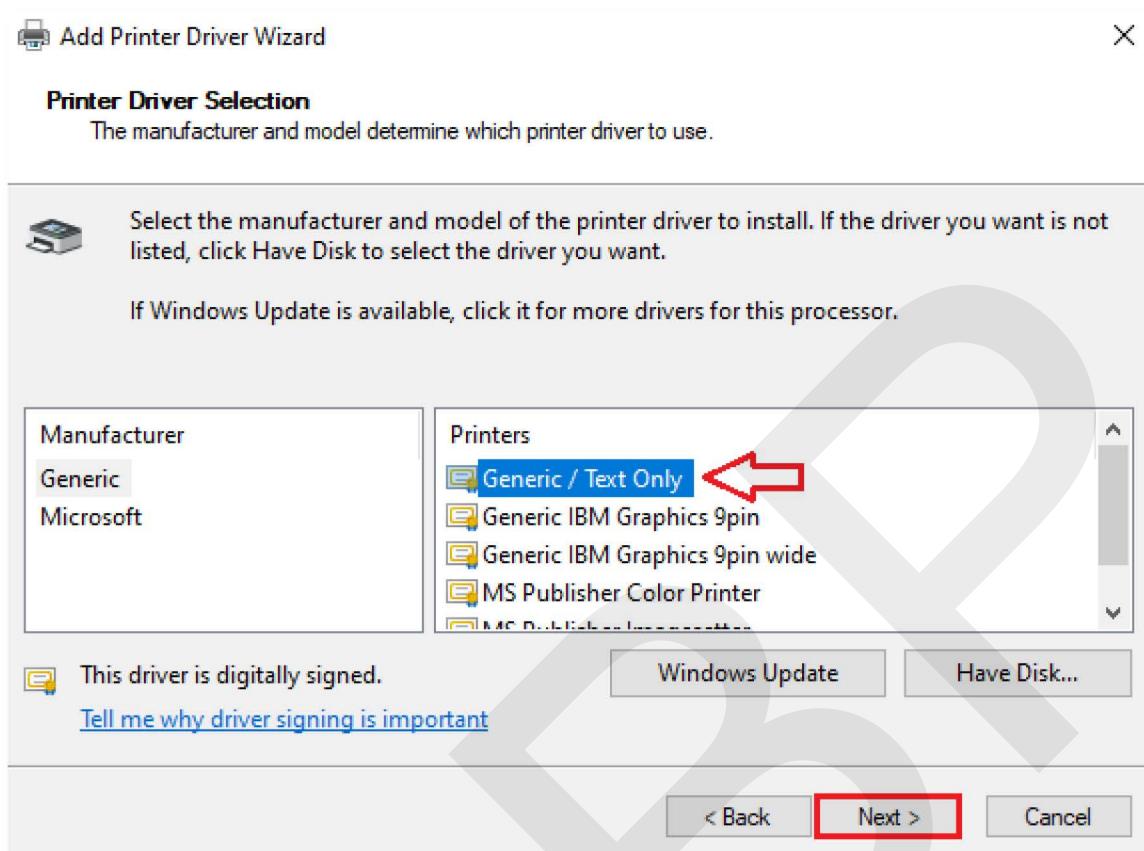
winserverweb → Server Manager → Tools → Print Management

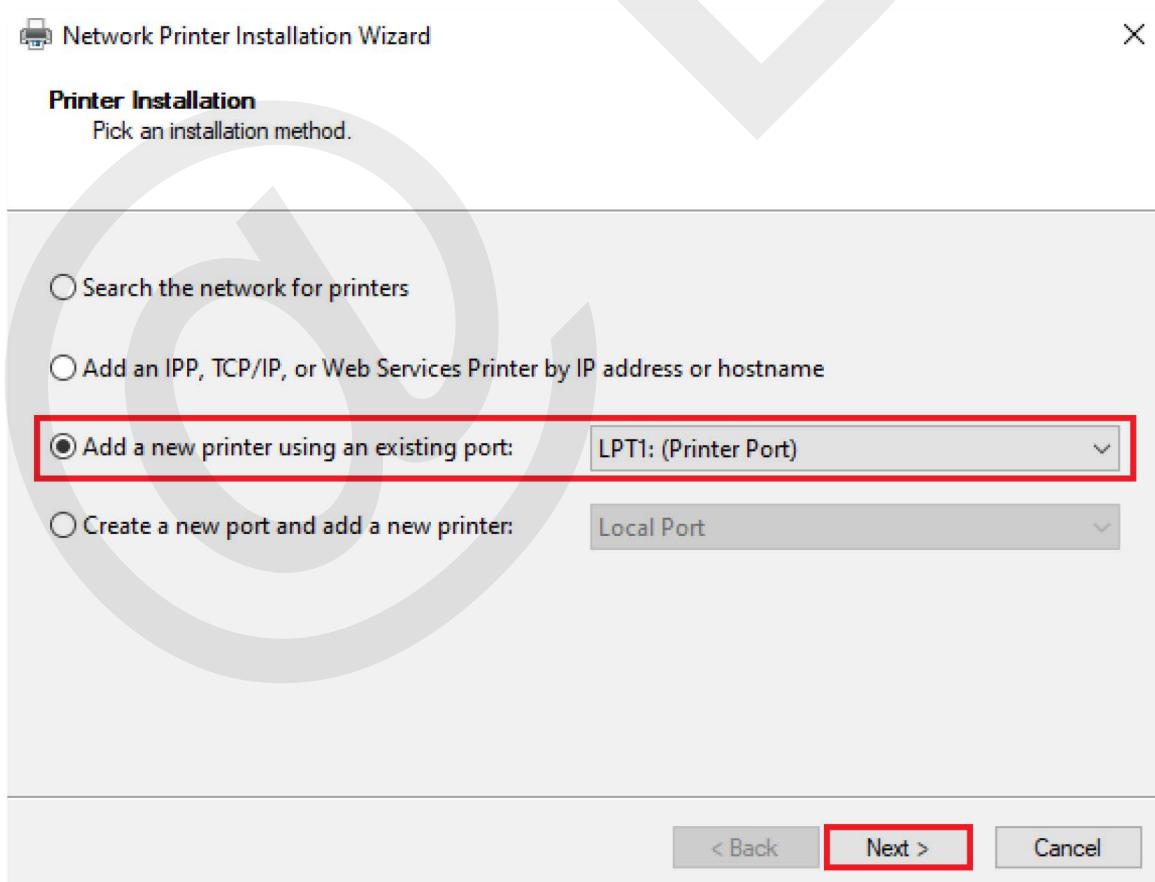
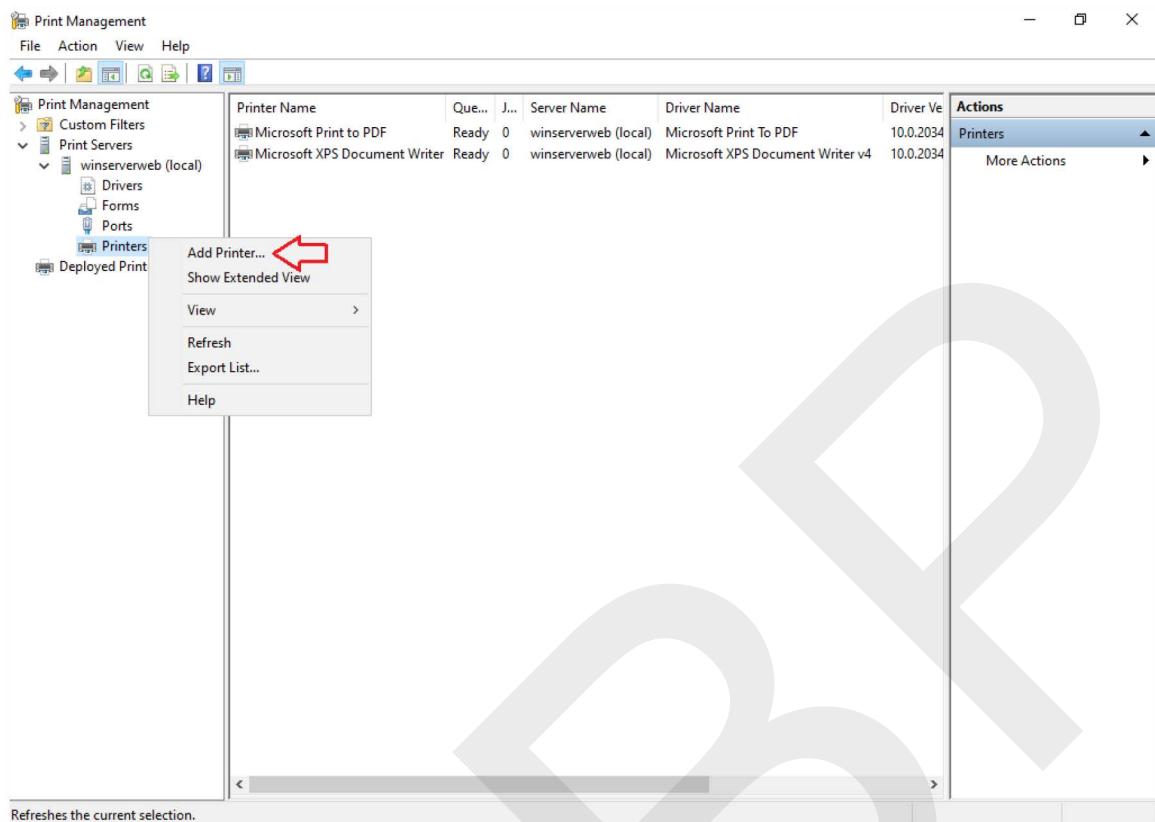


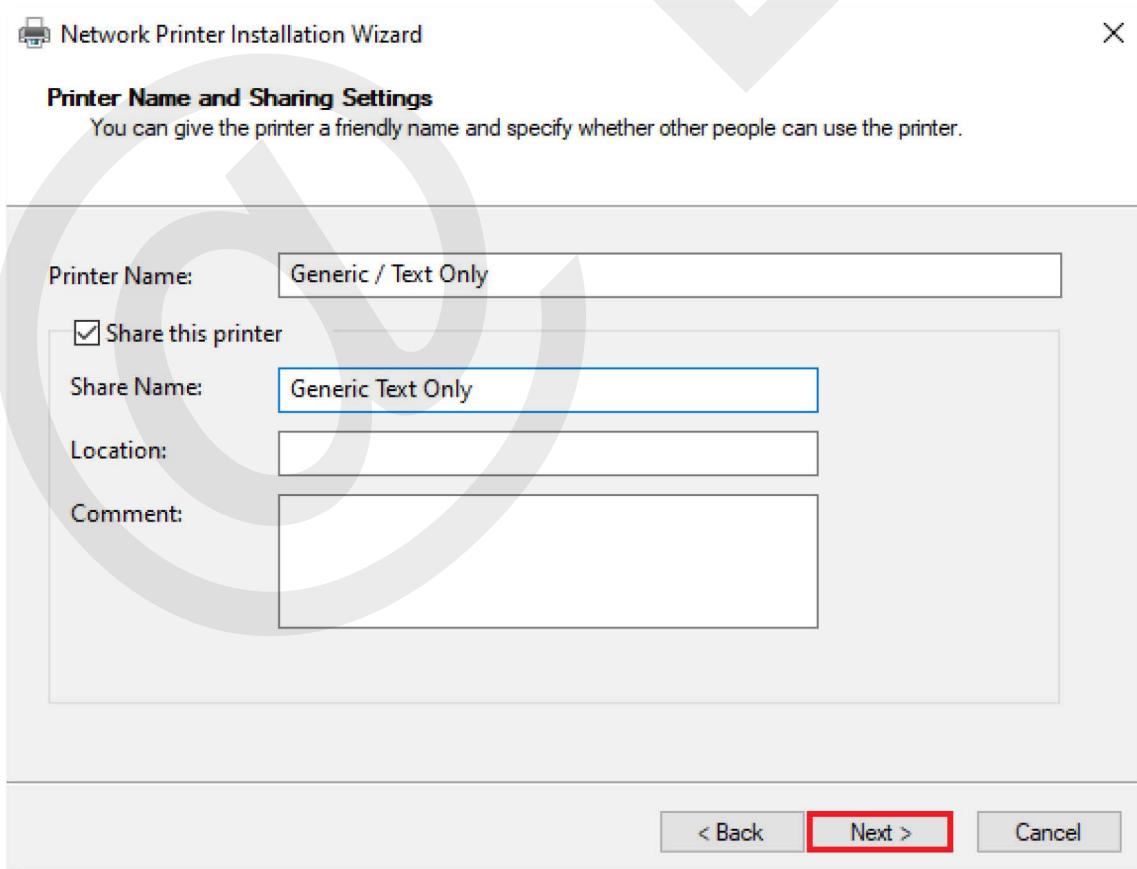
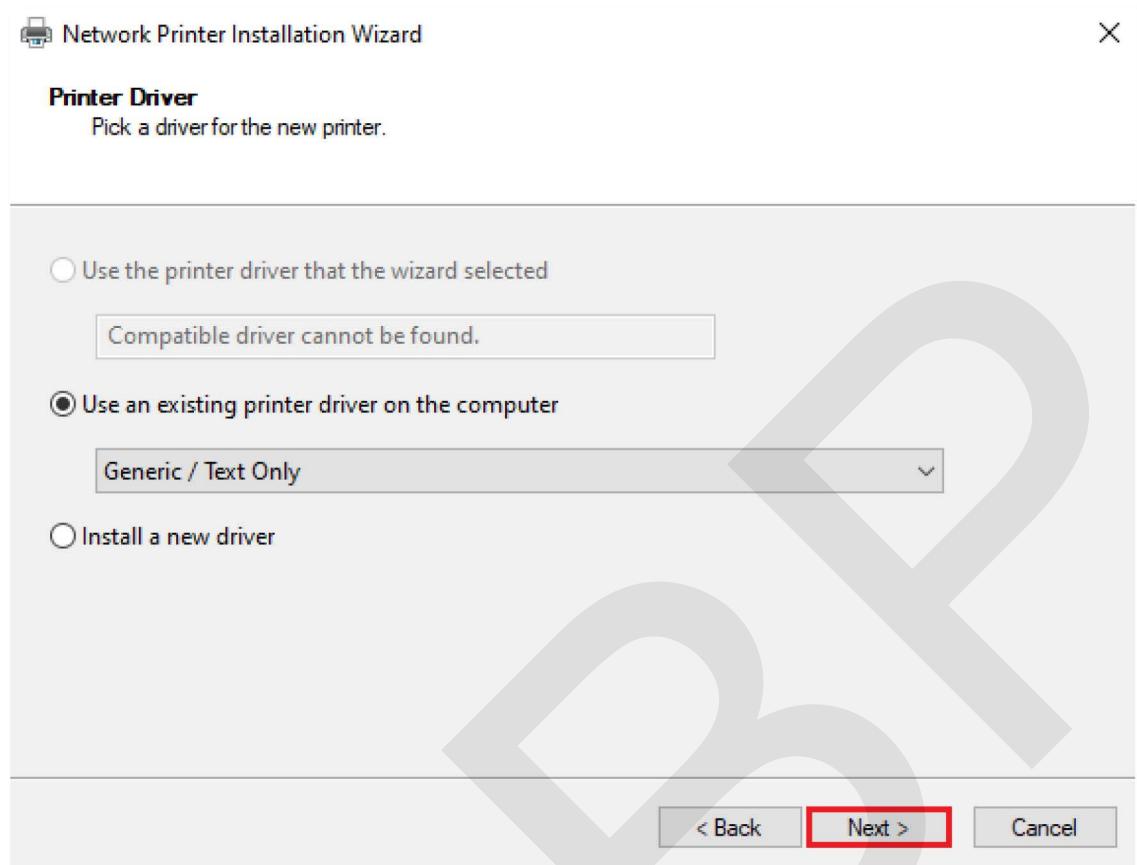
A nyomtatószerverhez hozzáadunk egy „Generic / Text Only” nevű driveret és nyomtatót, melyet megosztunk, és a Windows kliens számítógépen hozzáadjuk, mint új hálózati nyomtatót. Természetesen a nyomtatószerverben bármilyen nyomtatót felvehetünk, megoszthatunk, annak illesztőprogramjának telepítésével és a nyomtató megosztásával.

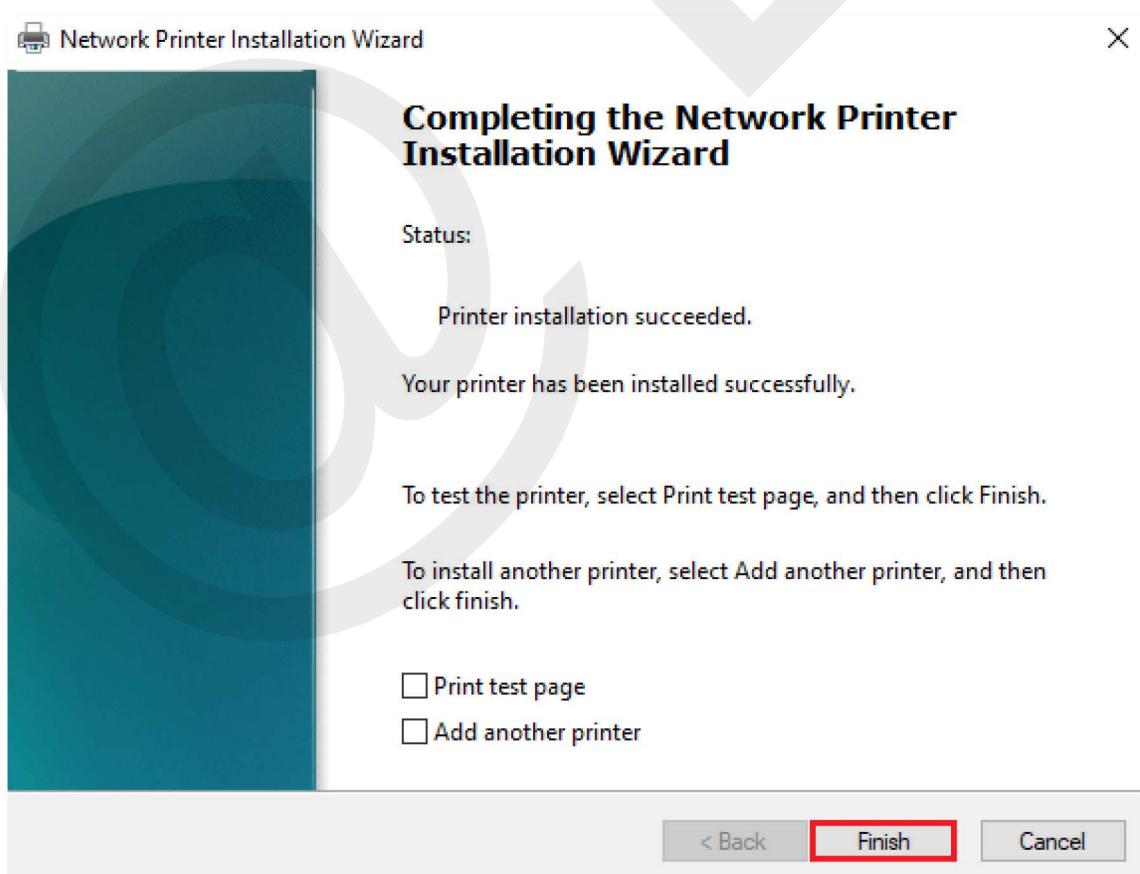
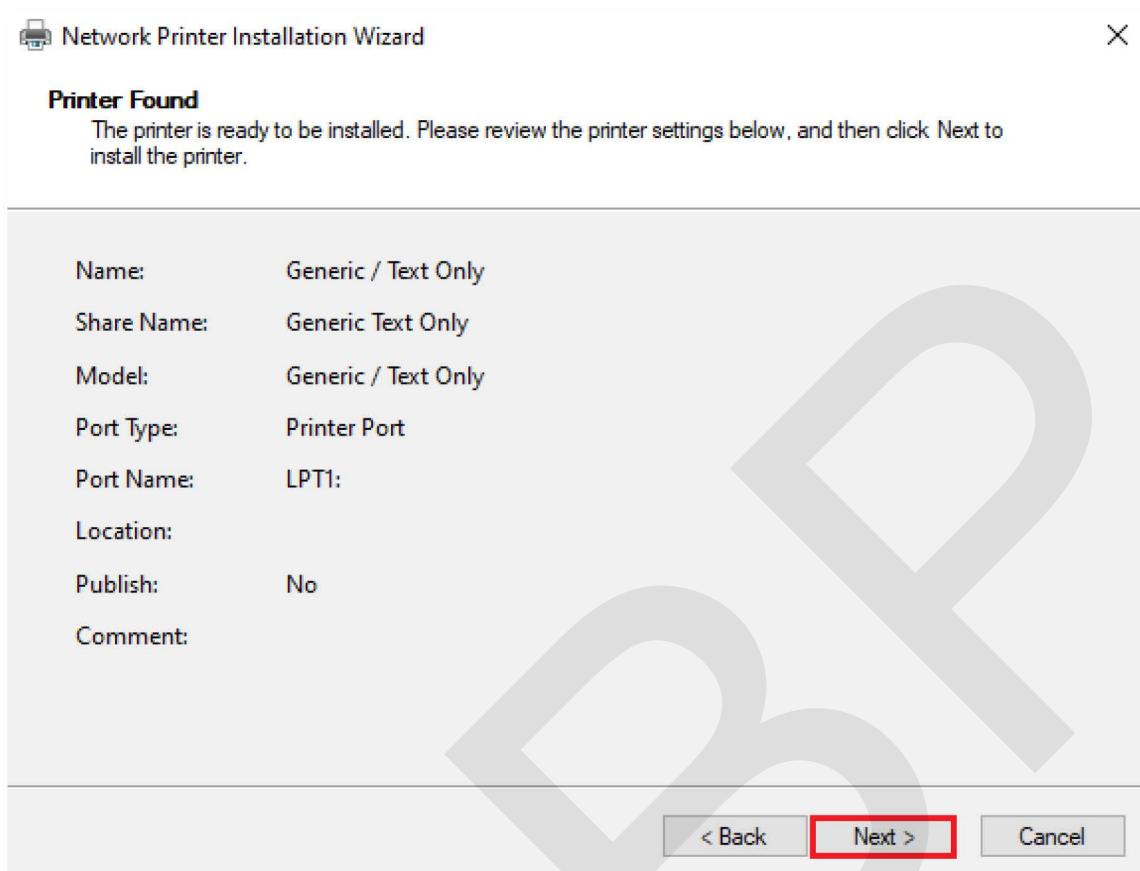




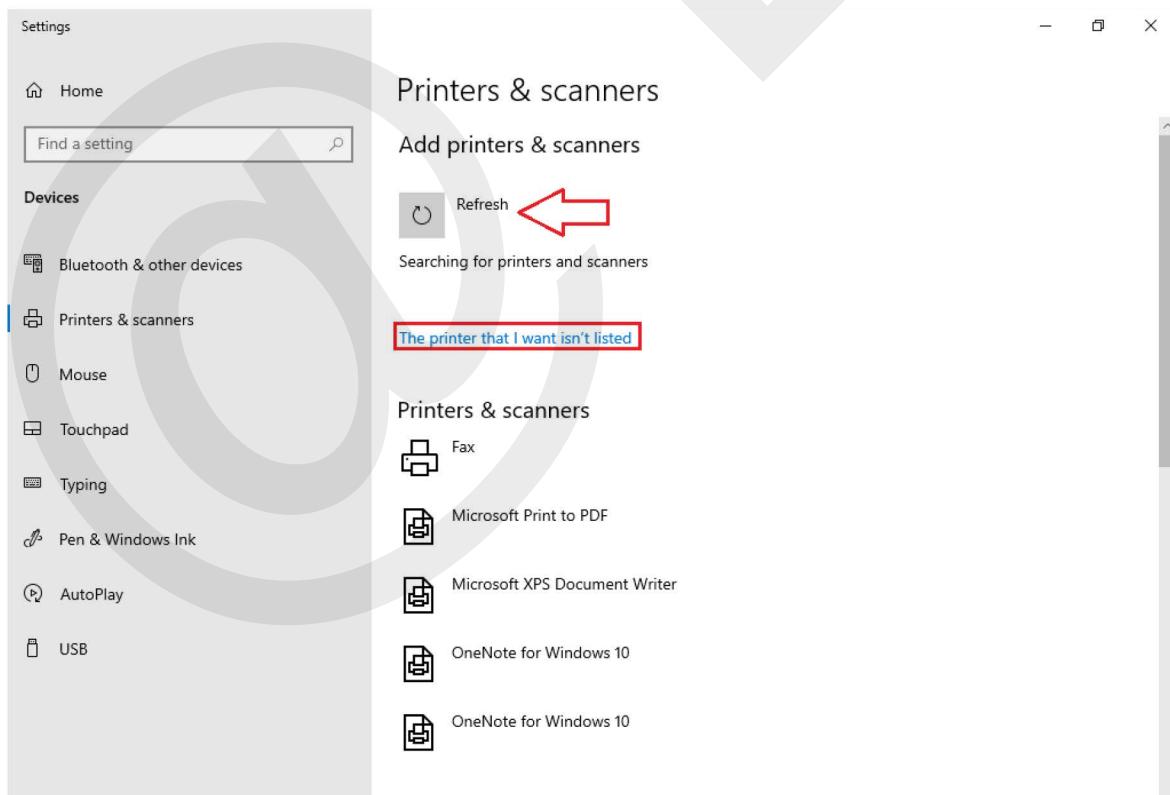
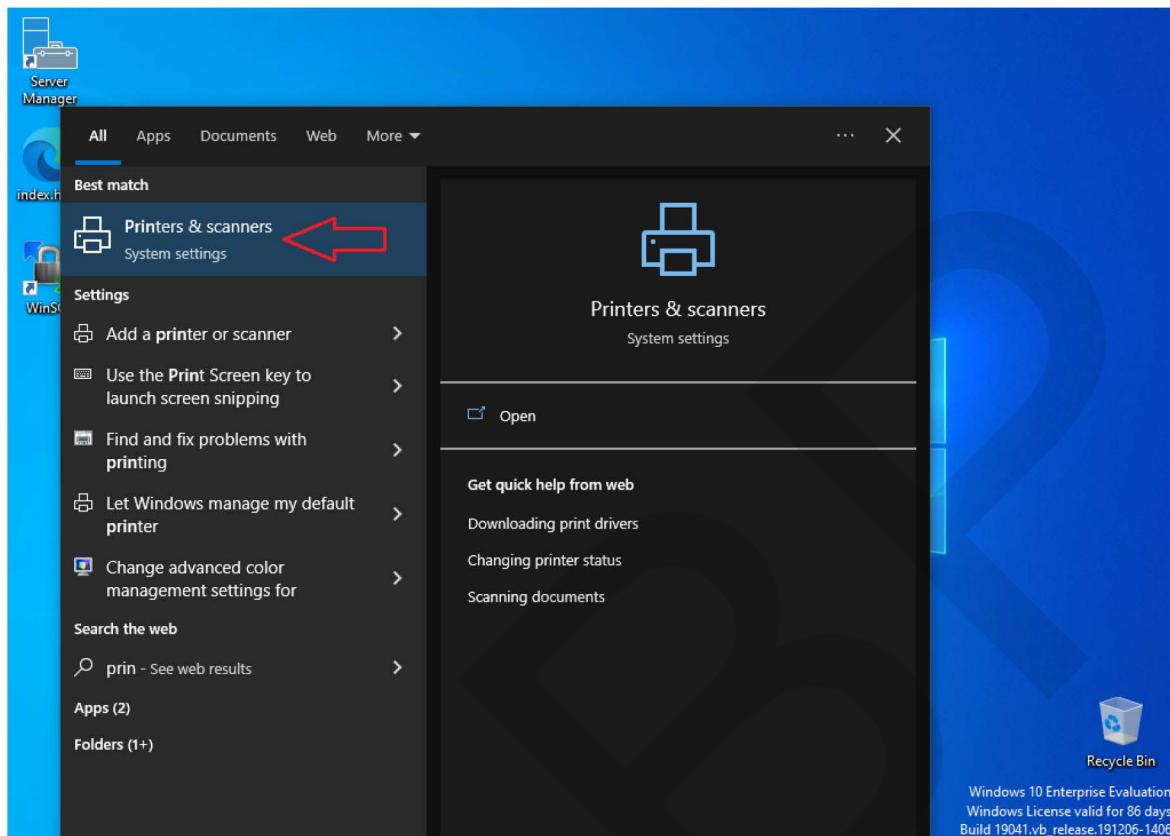


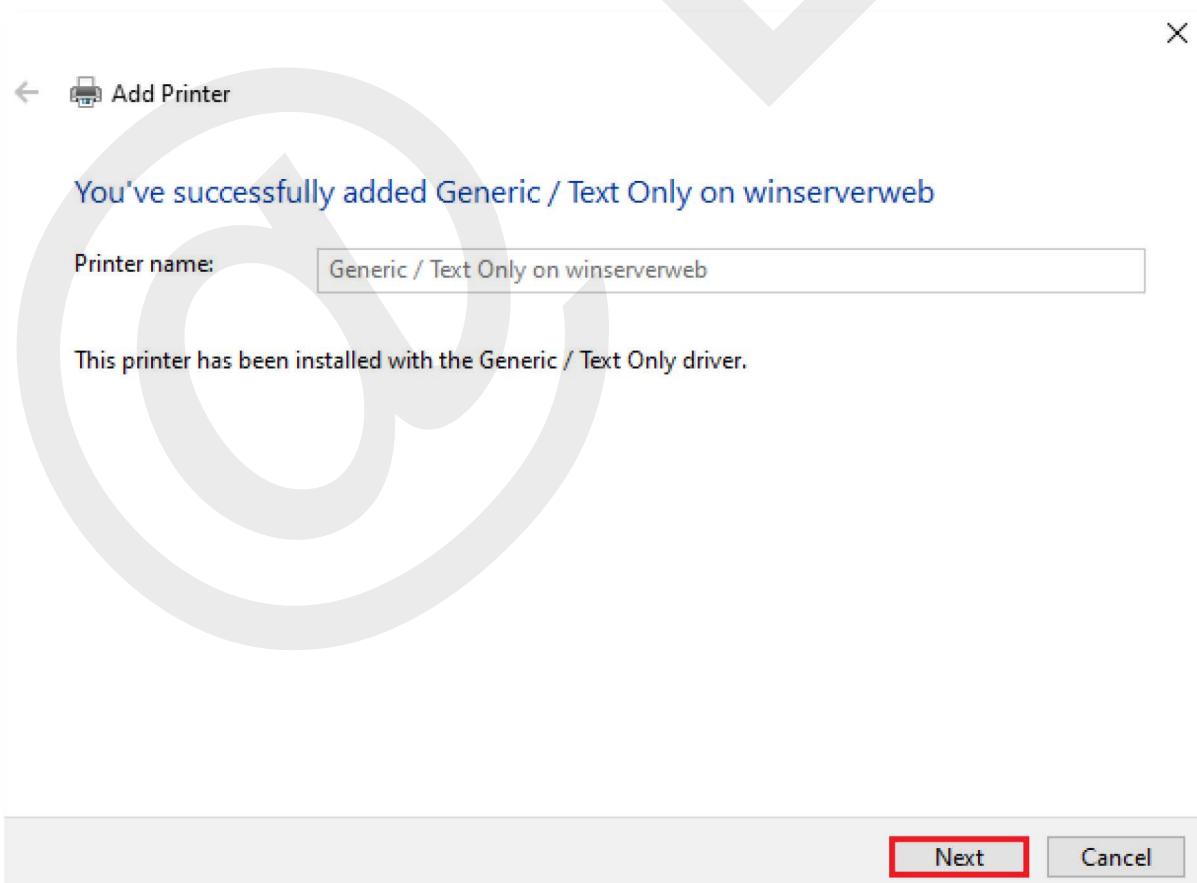
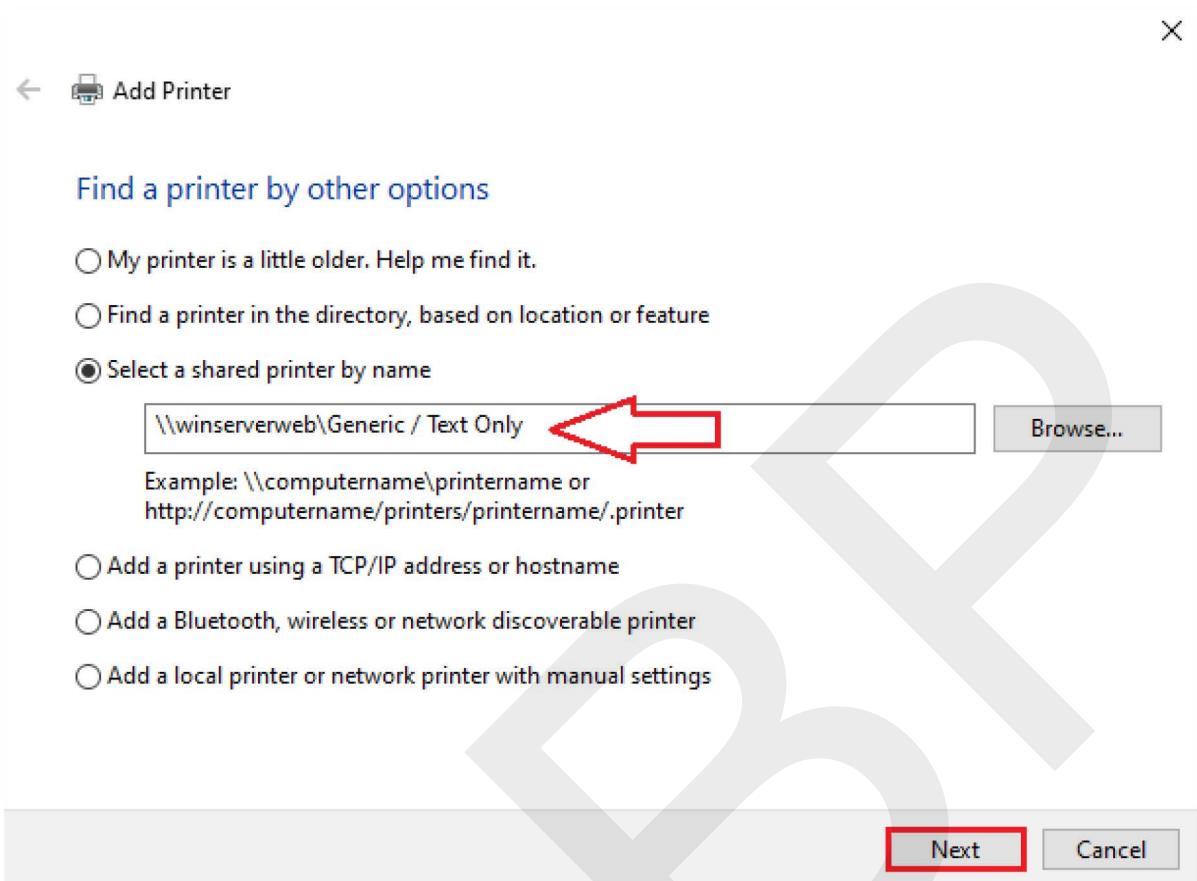


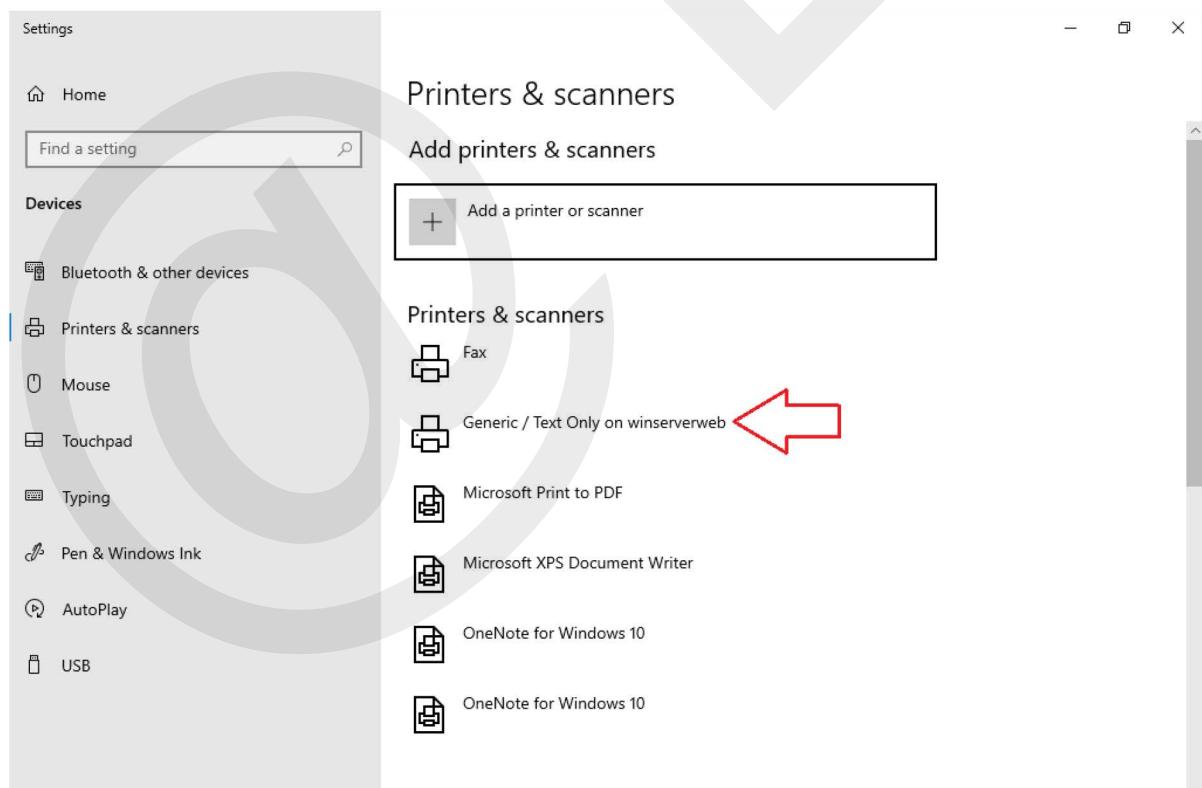
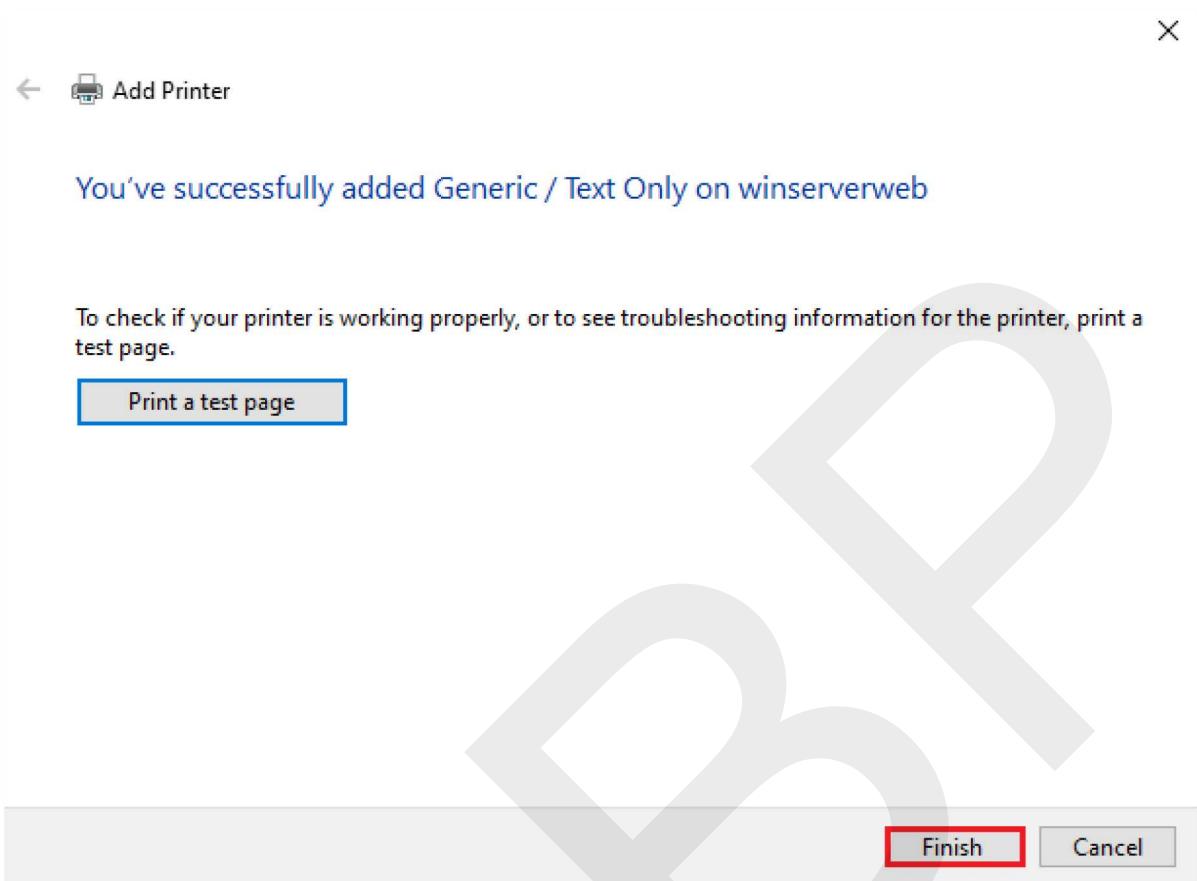




## Nyomtató hozzáadása a Windows kliens számítógépen (tartományi adminisztrátorként):







sikeresen hozzáadtuk a „Generic / Text Only” nyomtatót a rendszerhez