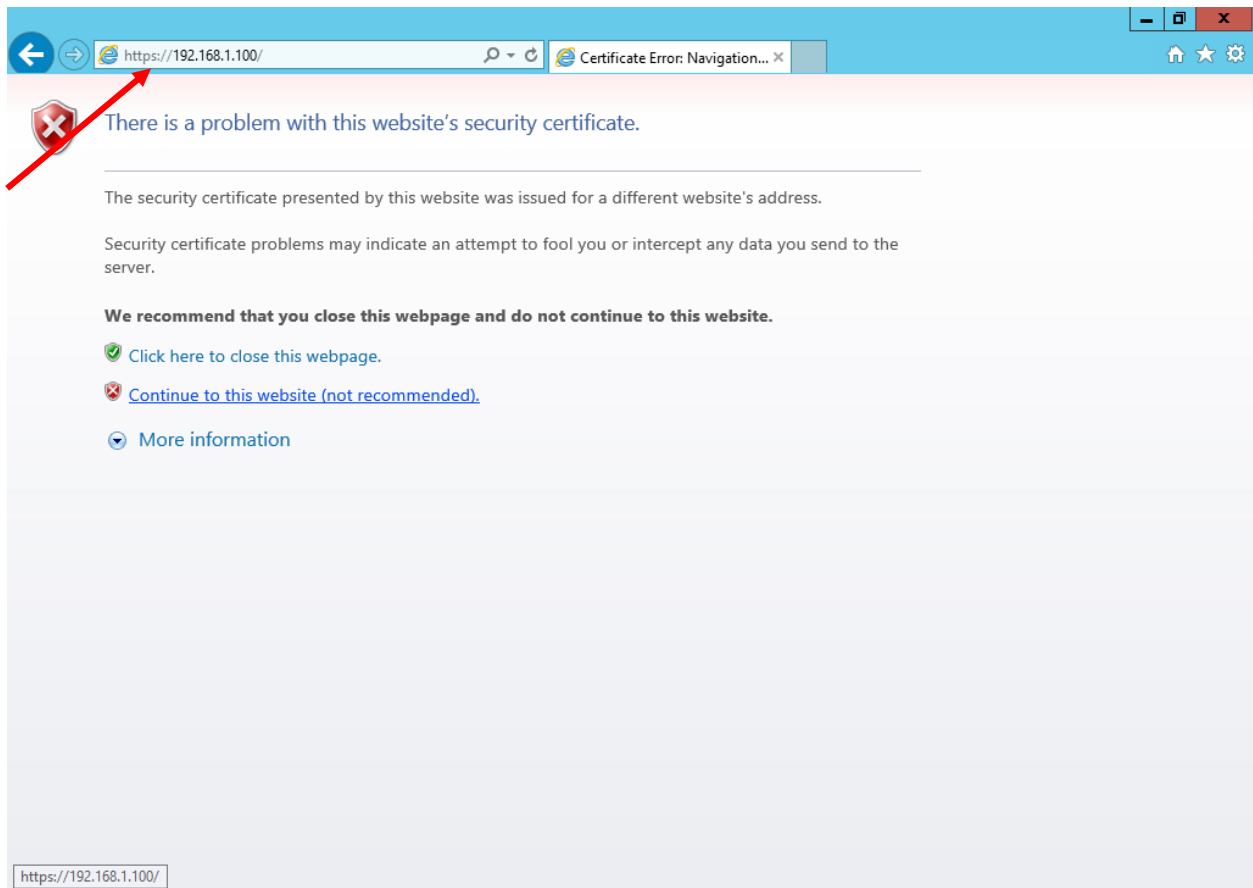


Triển khai HTTPS cho Webserver (HTTP + SSL = HTTPS)

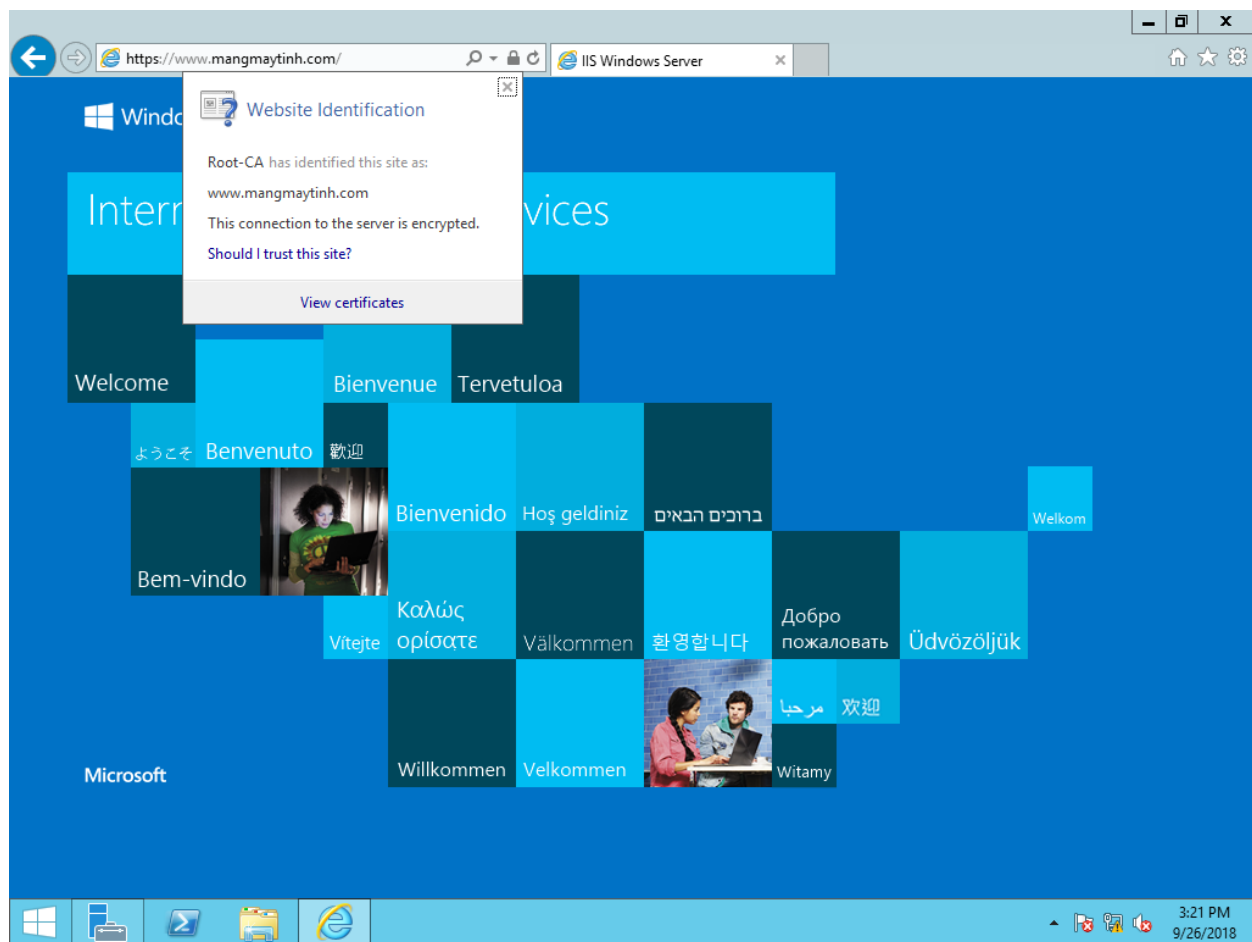
Yêu cầu bài Lab:

IP web server trên windows server 2012 thiết lập là: 192.168.1.100

Trước khi triển khai HTTPS thì truy cập vào web site <https://192.168.1.100> sẽ gặp lỗi



Sau khi triển khai HTTPS, truy cập **được** vào site <https://www.mangmaytinh.com>



Các bước tiến hành:

- Cấu hình website trong IIS (dùng file Web_Publish).

1. Nâng cấp server lên Domain Controller và cài đặt dịch vụ DNS :

2.Tắt Firewall trên server

3.Cài đặt dịch vụ Active Directory Certificate Services (AD CS) và cấu hình CA cho phép cấp Certificate

4. Xin cấp chứng chỉ cho Web site www.mangmaytinh.com

5. Cấu hình dịch vụ DNS và tạo bản ghi DNS: www.mangmytinh.com trở về đ/c 192.168.1.100

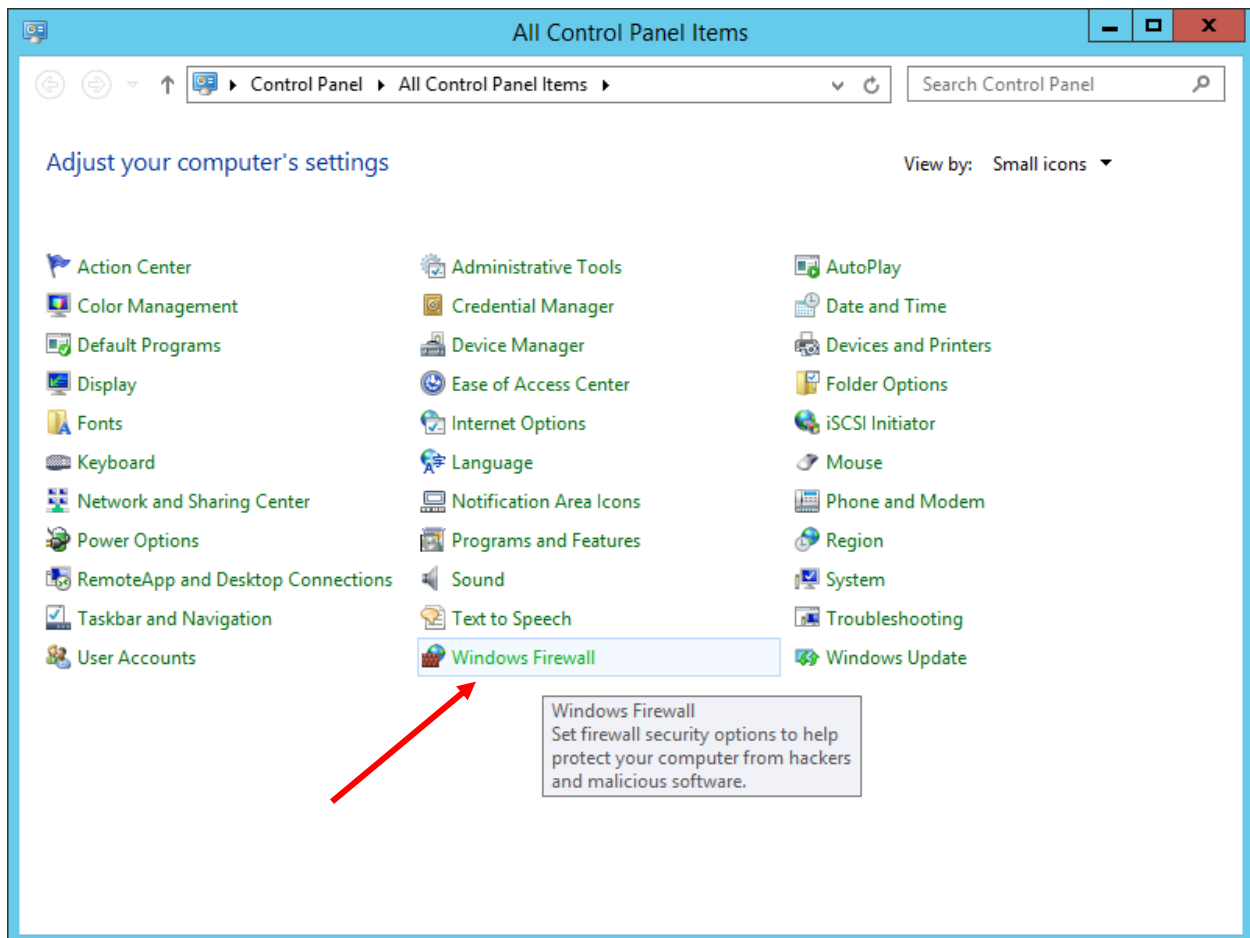
6. Cài đặt và cấu hình dịch vụ Internet Information Services (IIS) chạy SSL với certificate request

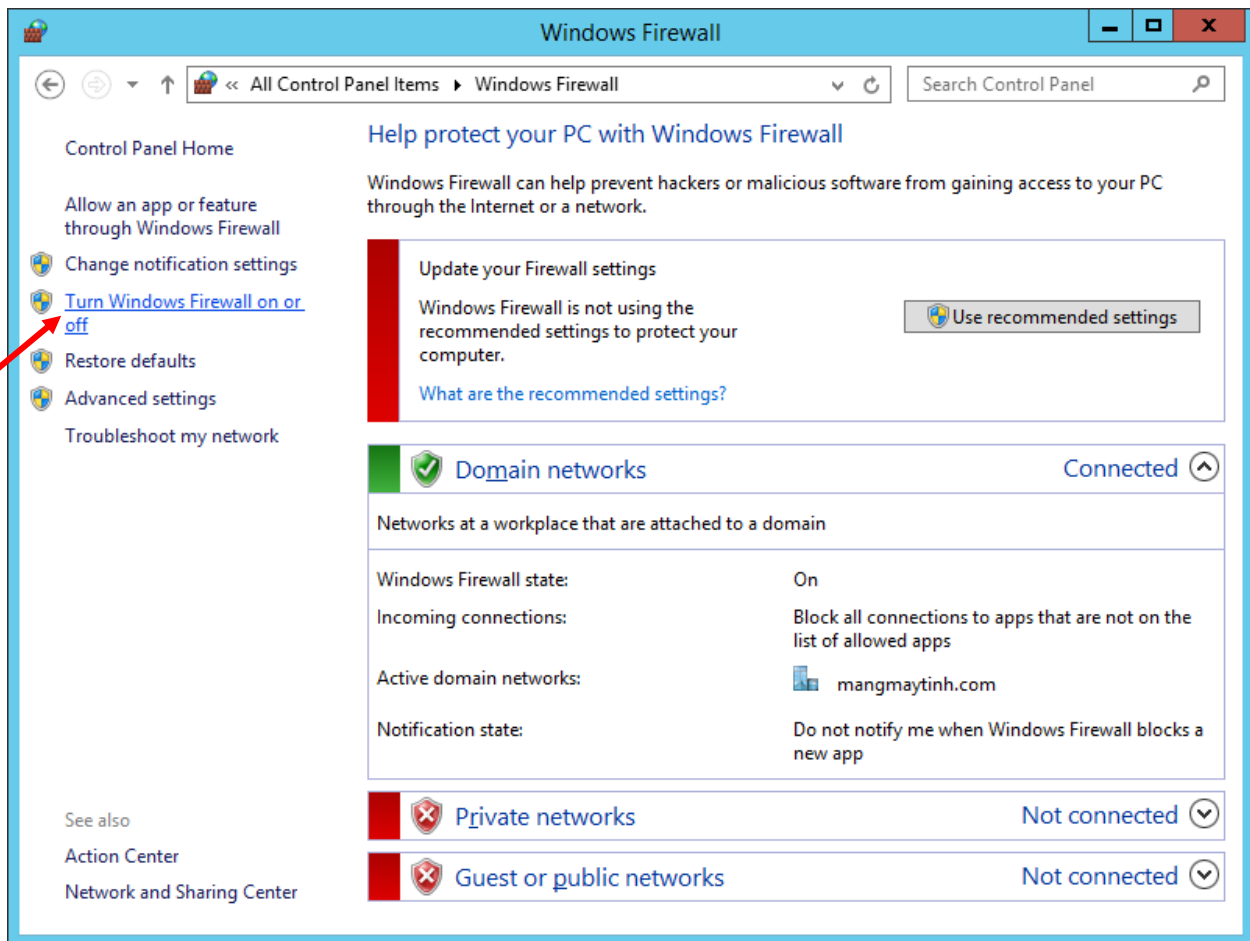
1. Tiến hành nâng cấp server lên Domain Controller và cài đặt dịch vụ DNS :

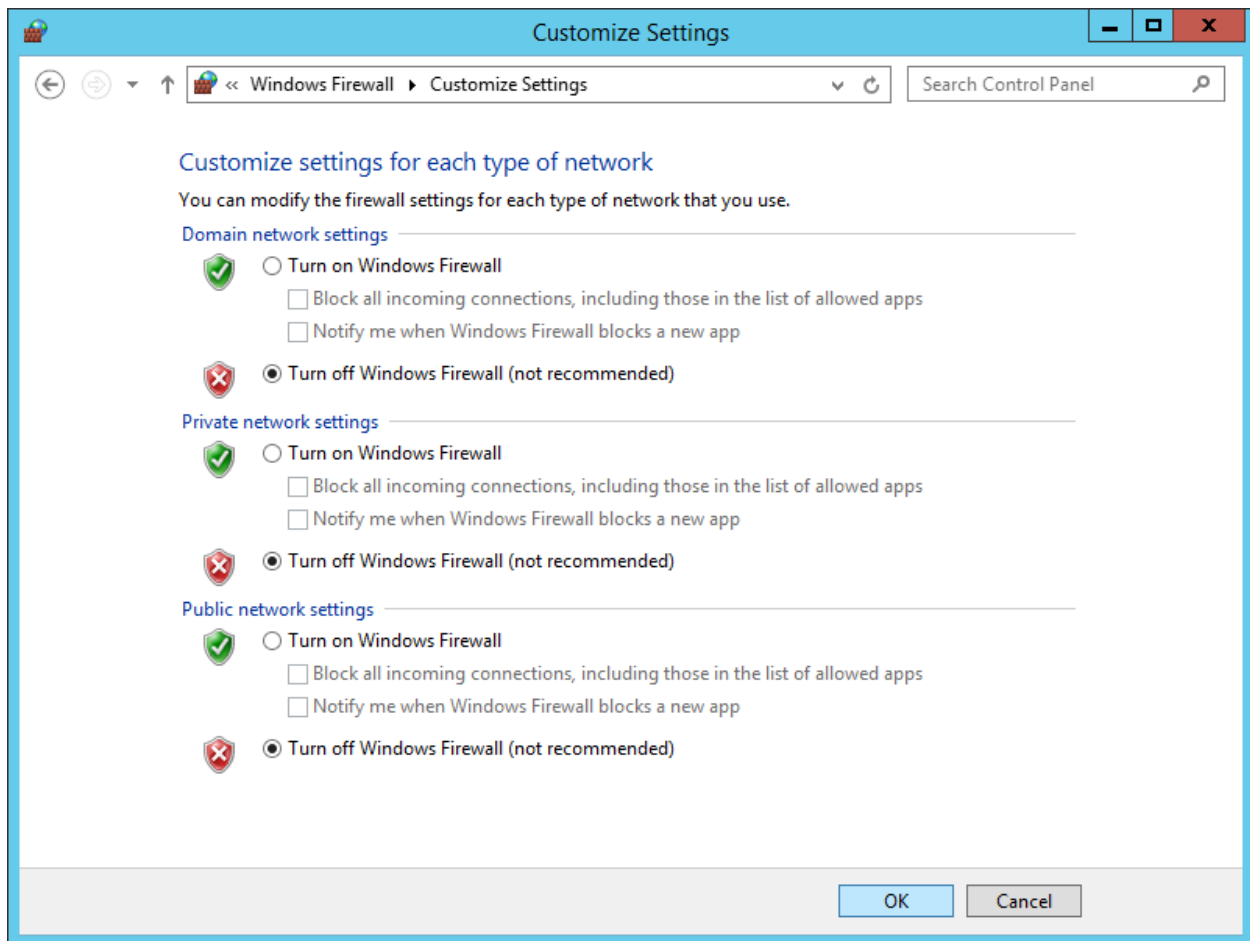
IP server: 192.168.1.100

Domain: mangmaytinh.com

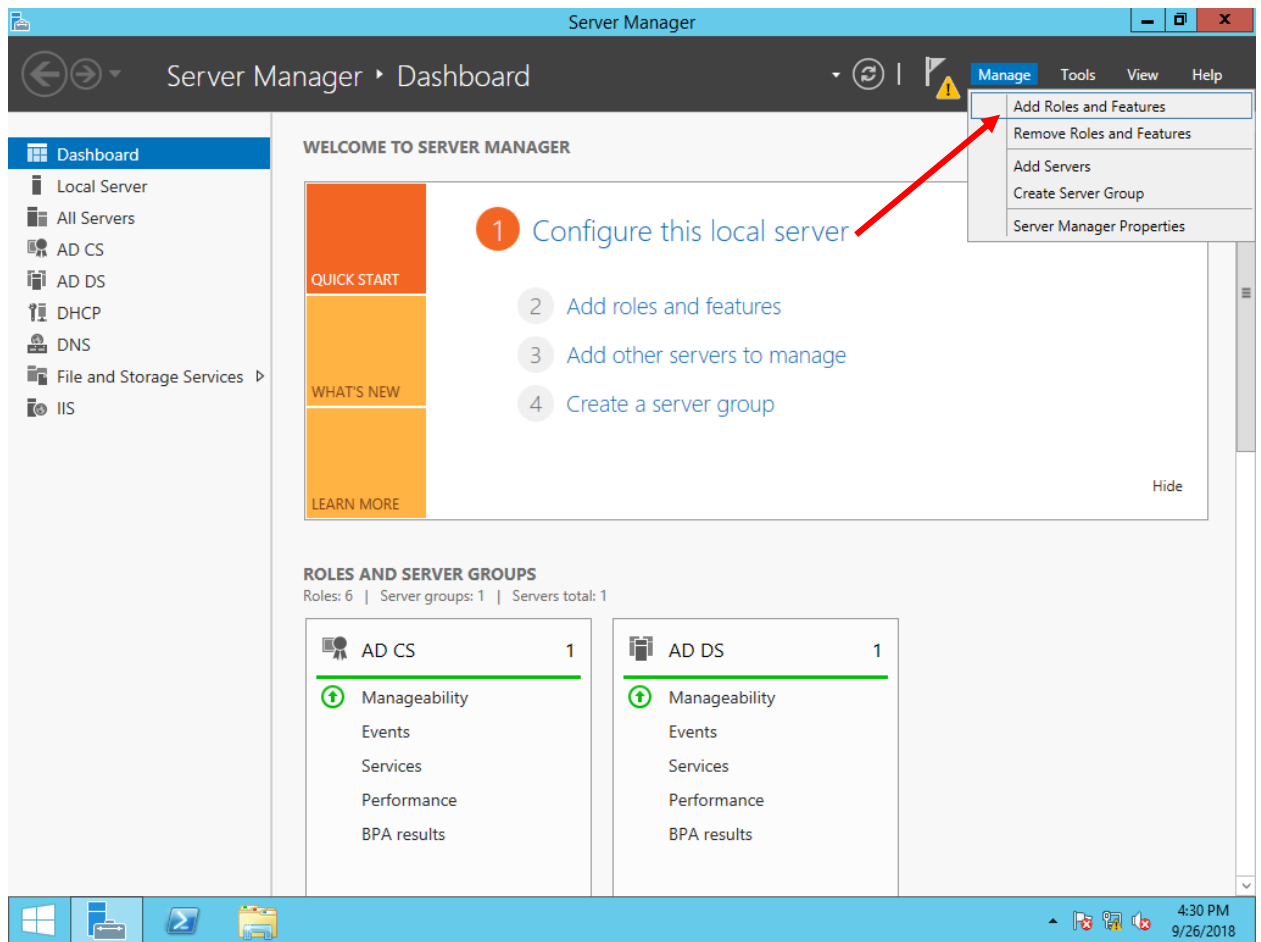
2.Tắt Firewall trên server:

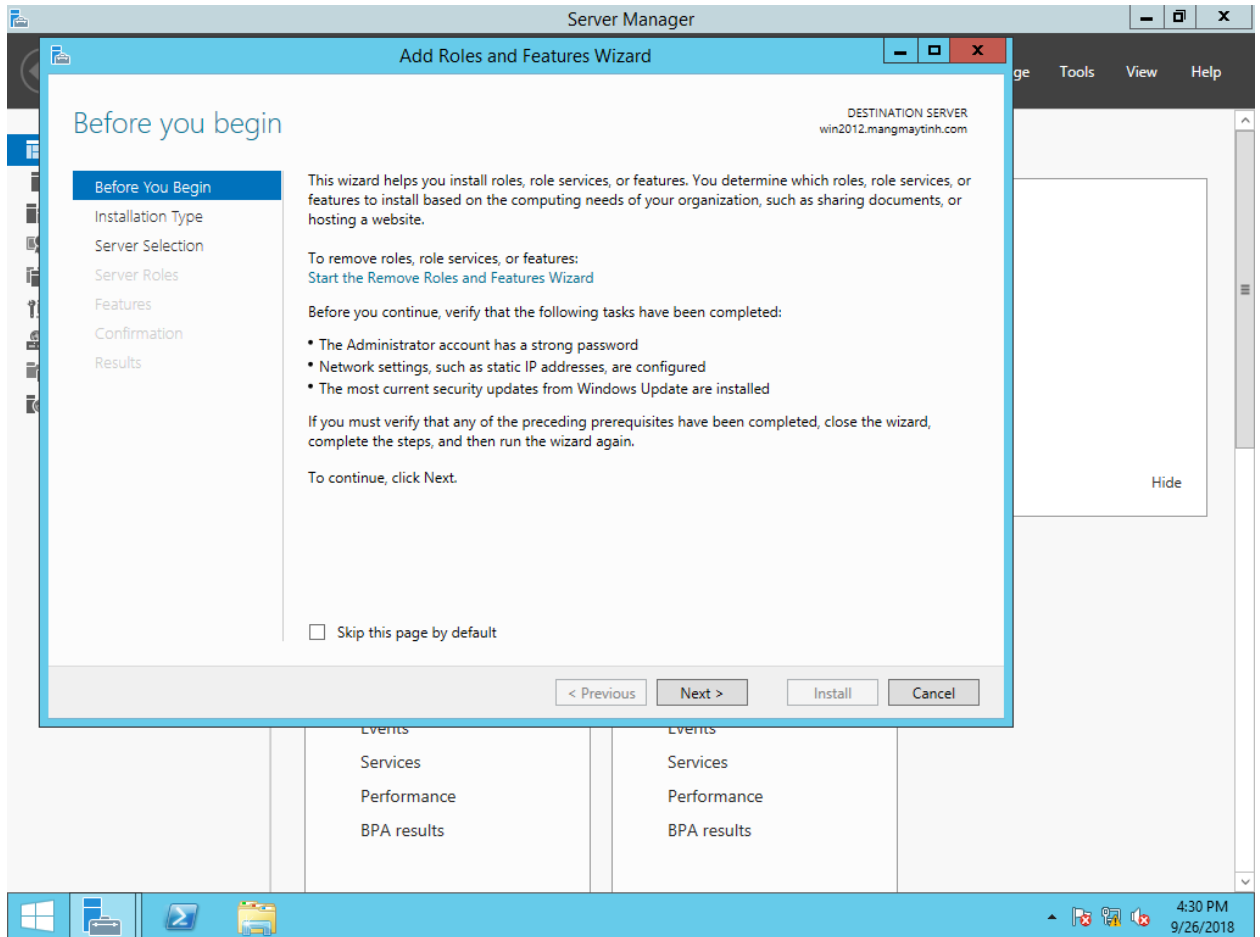


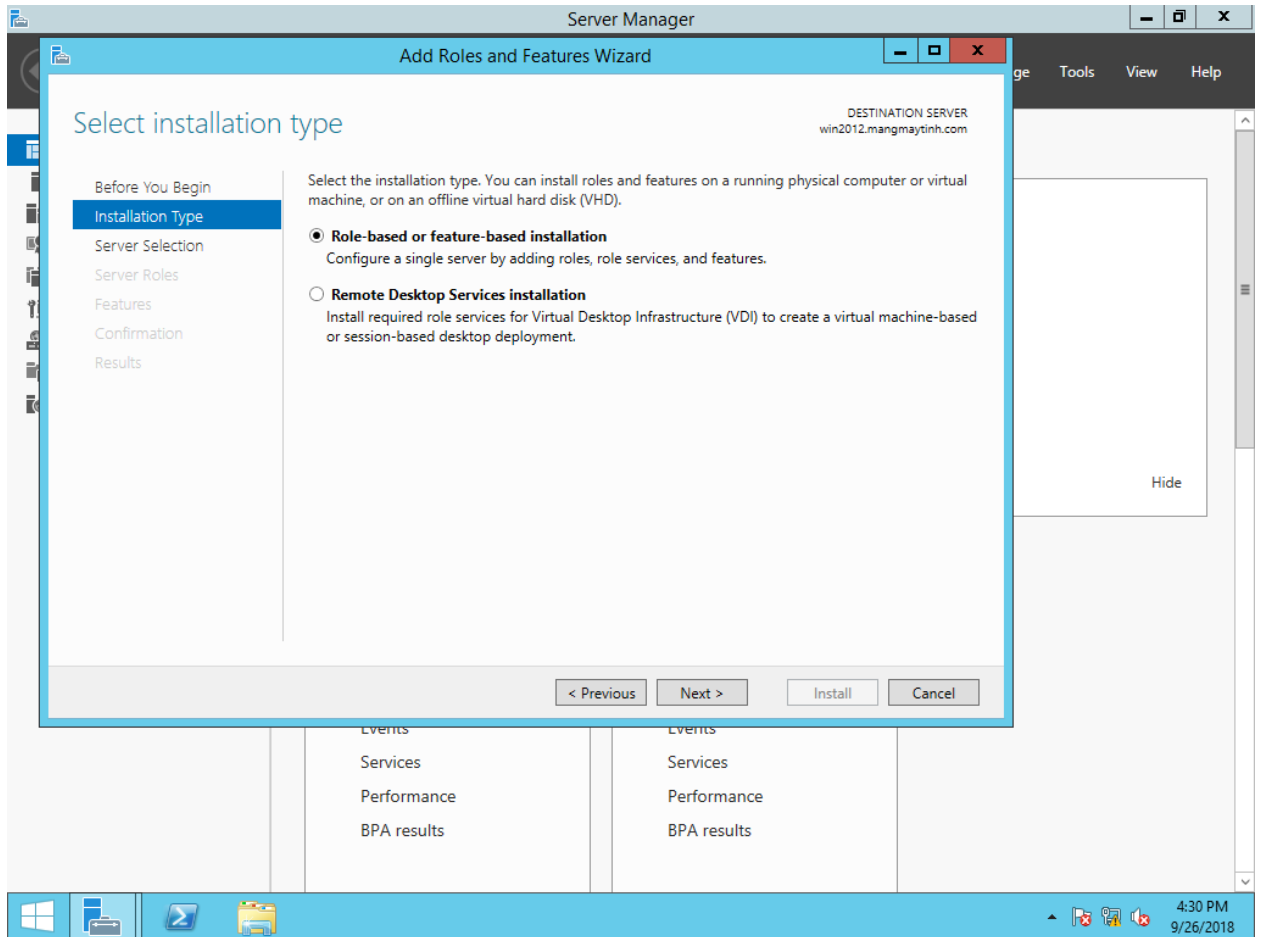


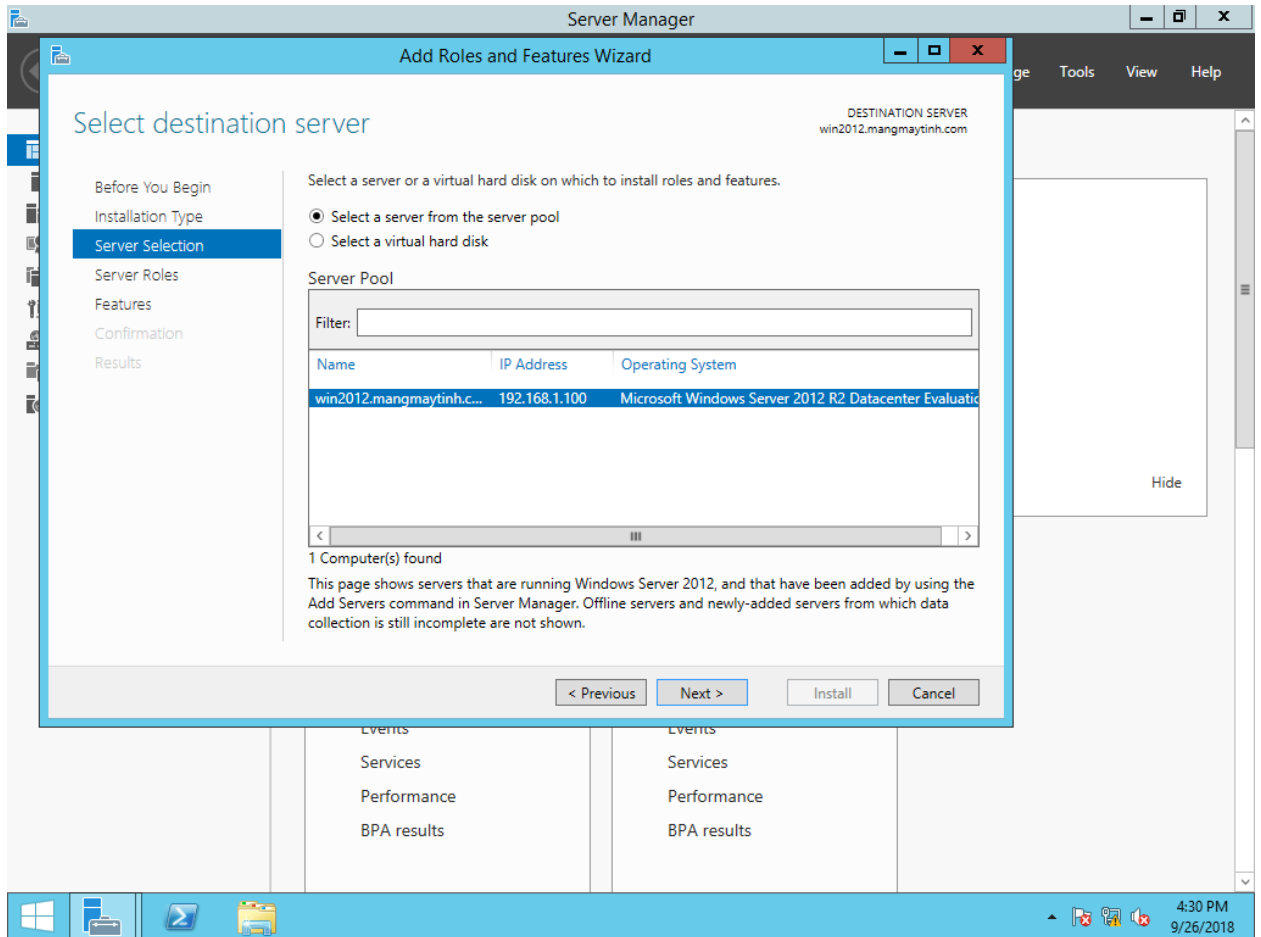


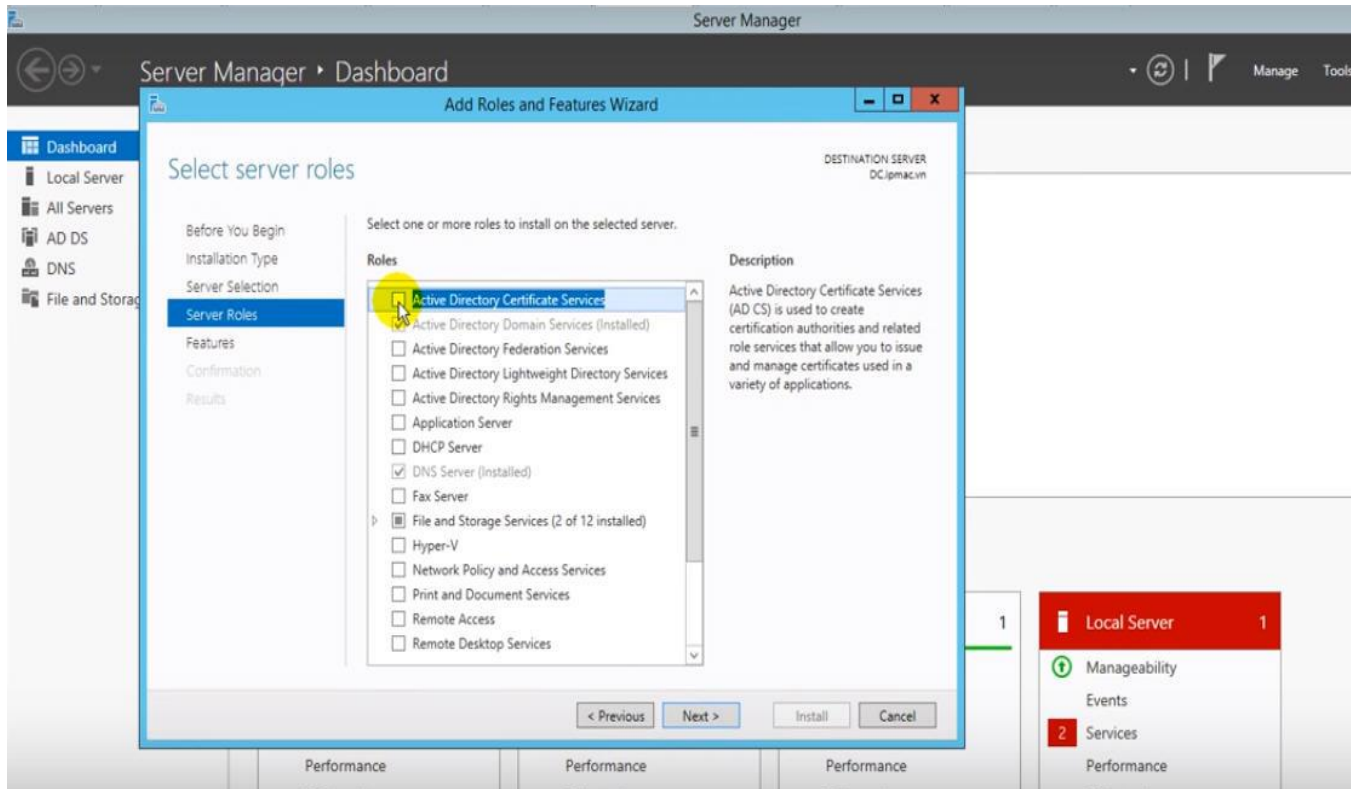
3. Cài đặt dịch vụ Active Directory Certificate Services (AD CS) và cấu hình CA cho phép cấp Certificate

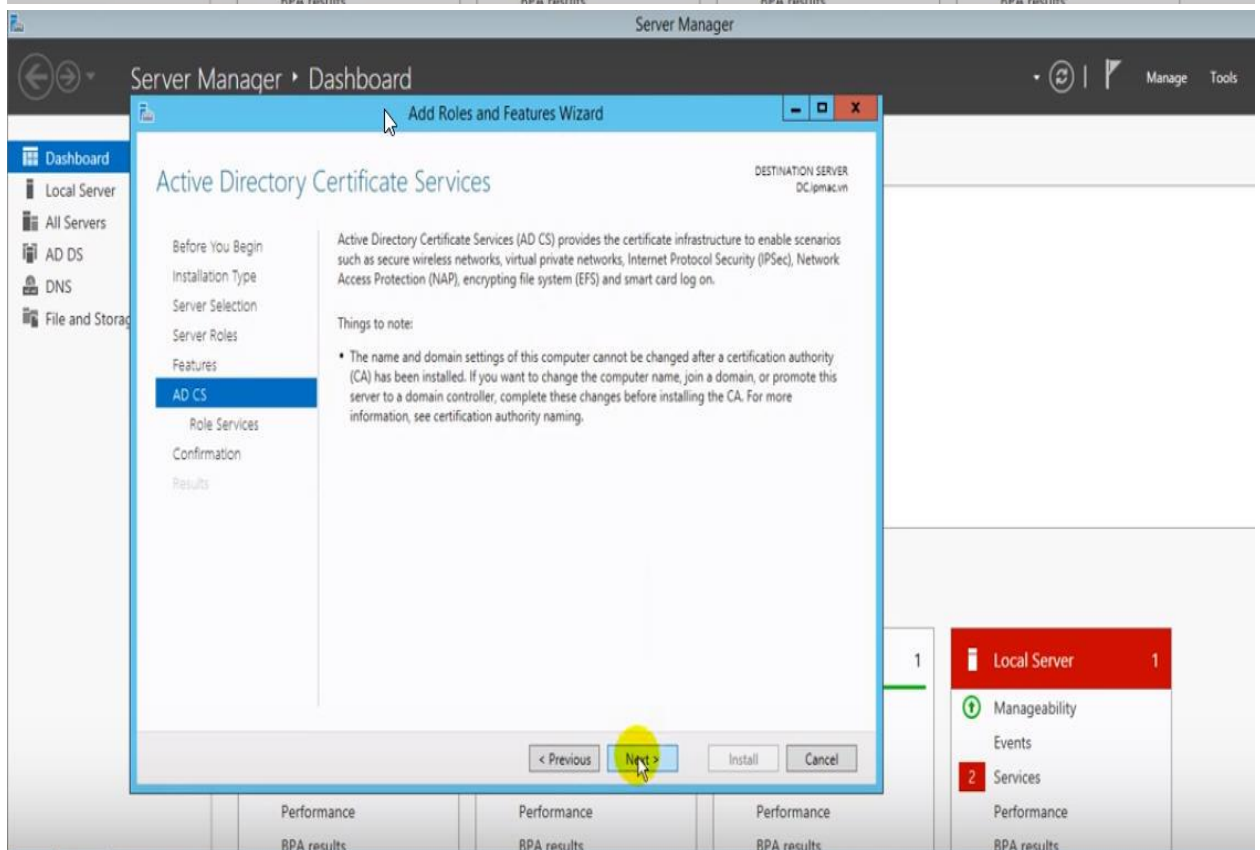
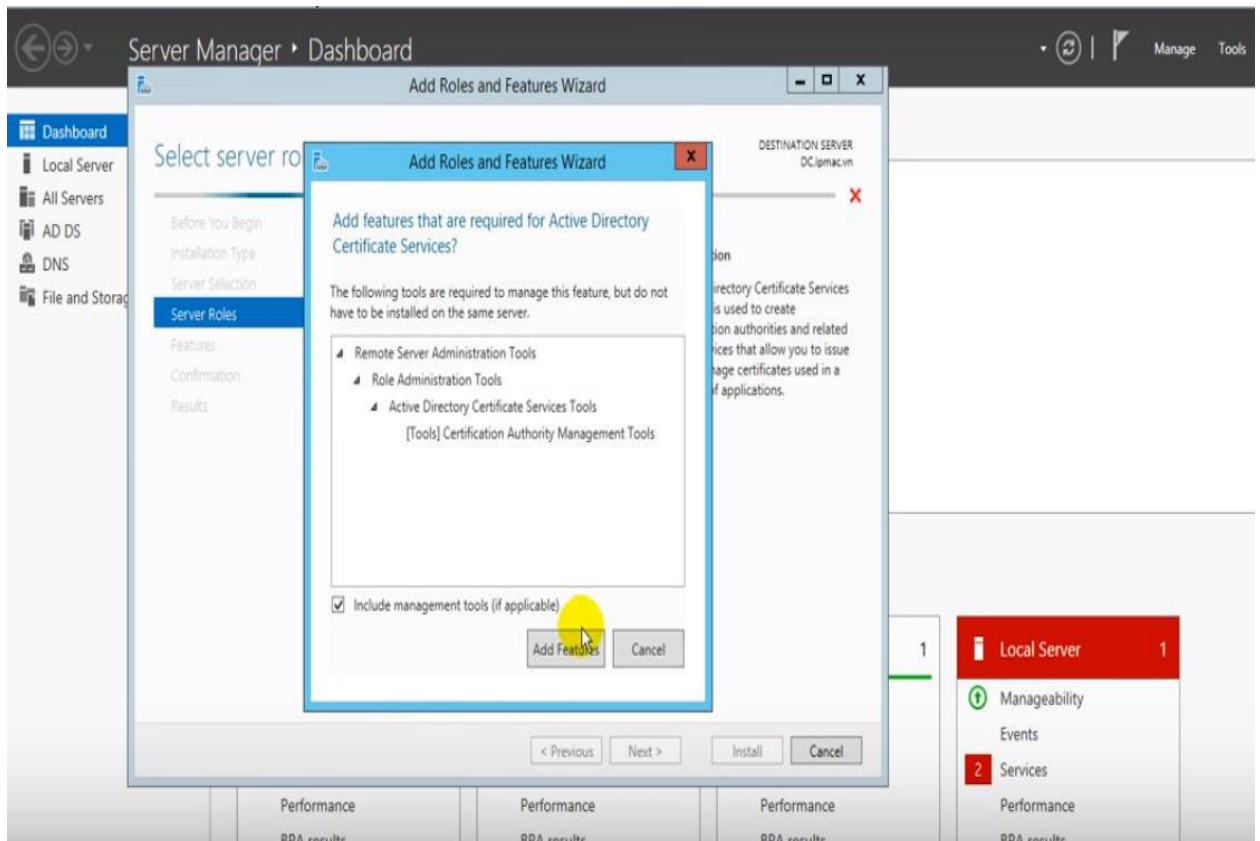


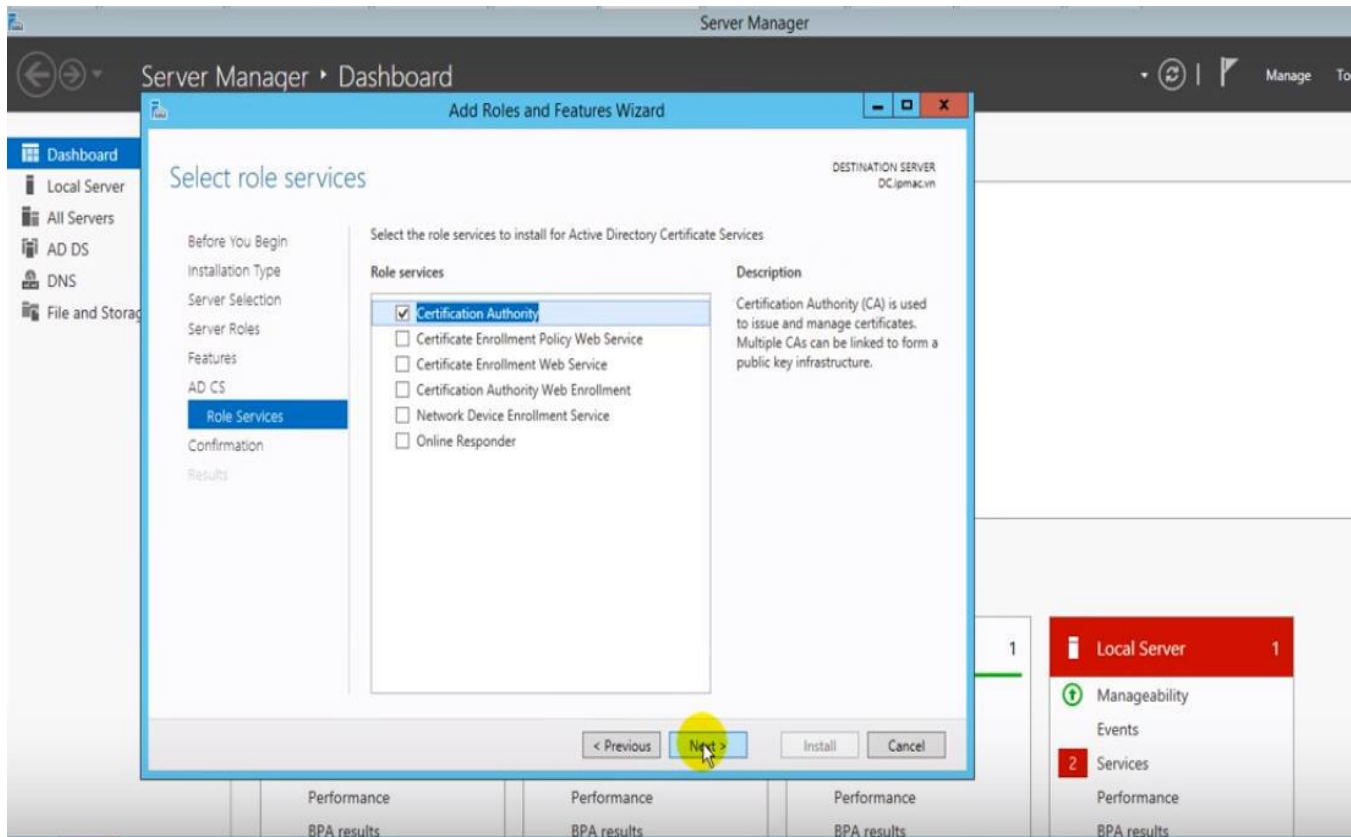


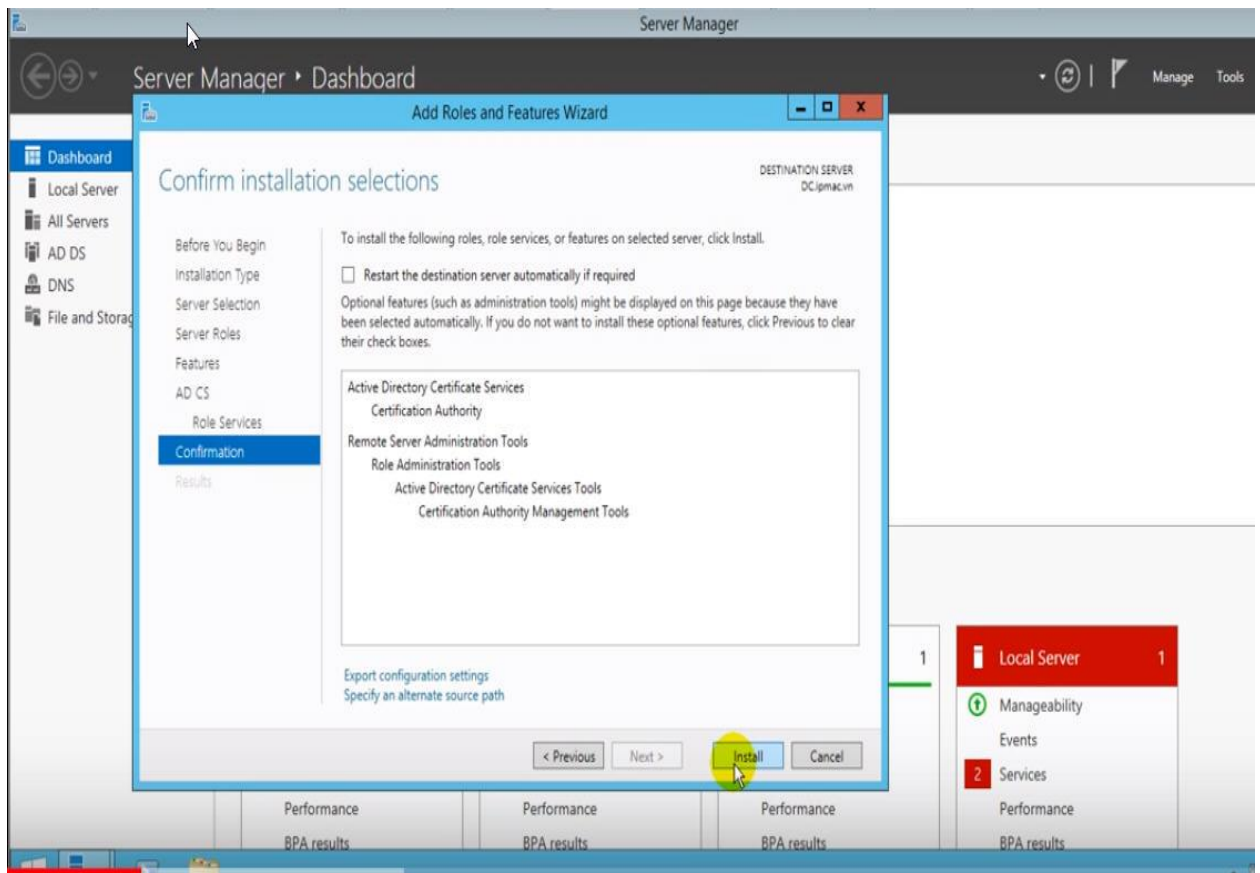


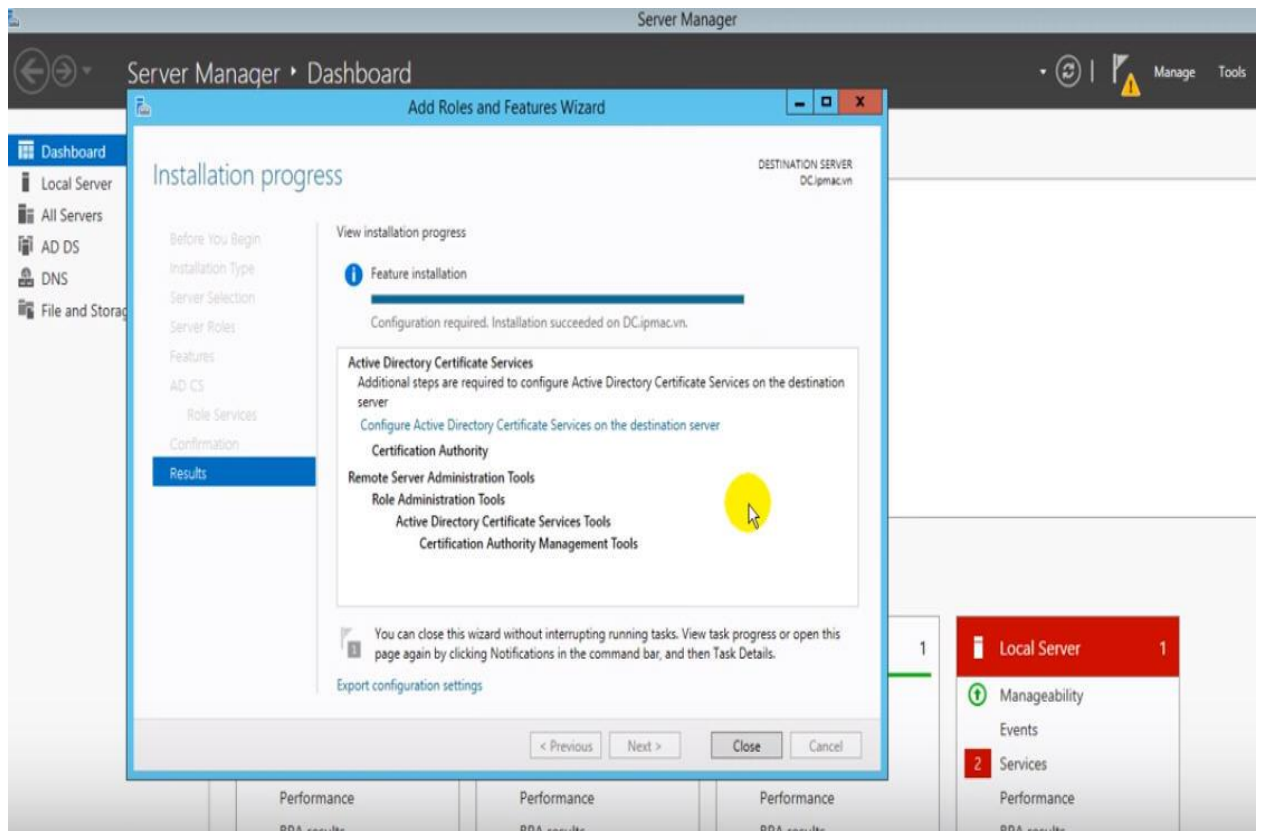


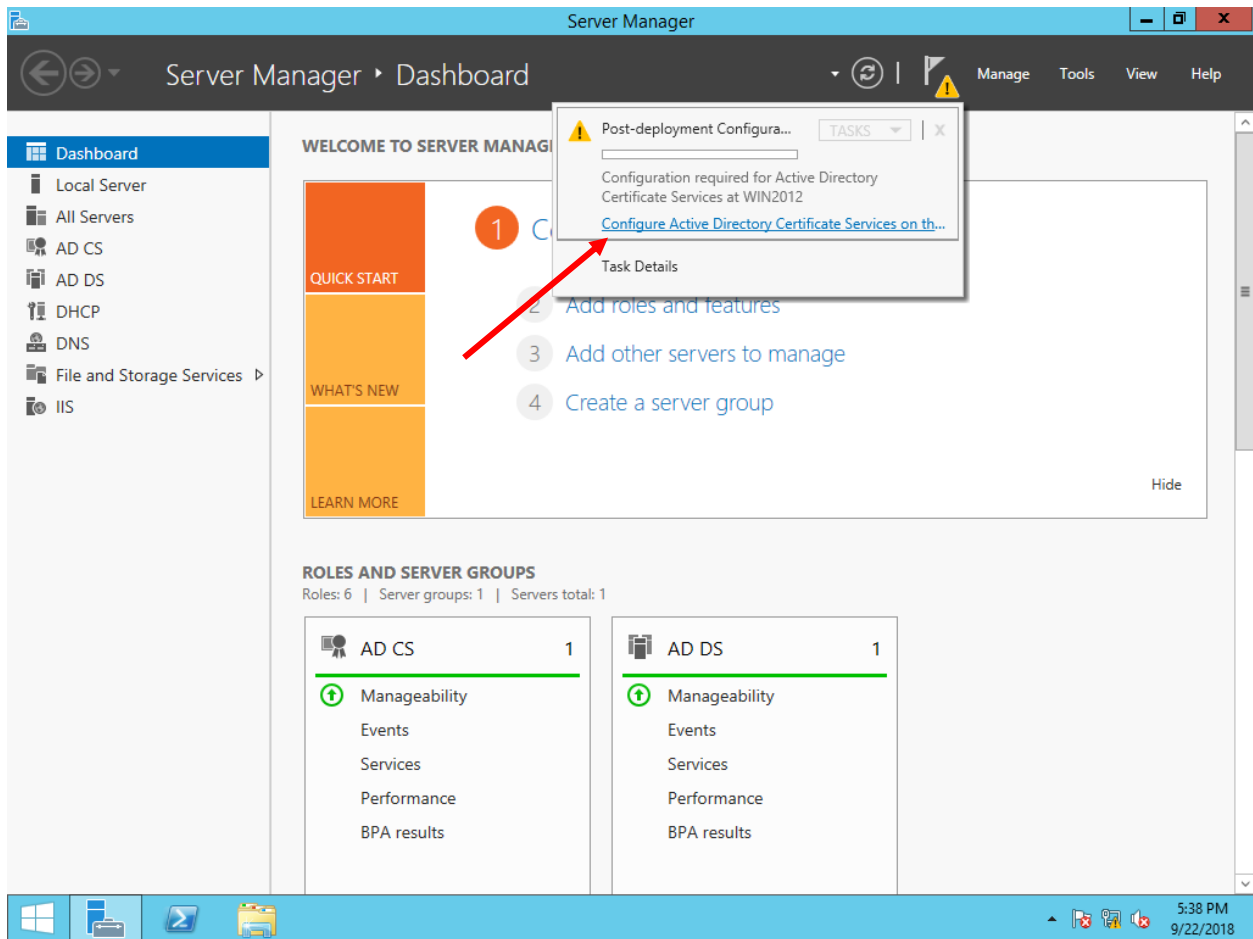












AD CS Configuration

DESTINATION SERVER
win2012.mangmaytinhh.com

Credentials

Credentials

Role Services

Confirmation

Progress

Results

Specify credentials to configure role services

To install the following role services you must belong to the local Administrators group:

- Standalone certification authority
- Certification Authority Web Enrollment
- Online Responder

To install the following role services you must belong to the Enterprise Admins group:

- Enterprise certification authority
- Certificate Enrollment Policy Web Service
- Certificate Enrollment Web Service
- Network Device Enrollment Service

Credentials:

MANGMAYTINH\Administrator

Change...

More about AD CS Server Roles

< Previous

Next >

Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytinh.com

Role Services

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Select Role Services to configure

☒ Certification Authority

☐ Certification Authority Web Enrollment

☐ Online Responder

☐ Network Device Enrollment Service

☐ Certificate Enrollment Web Service

☐ Certificate Enrollment Policy Web Service

[More about AD CS Server Roles](#)

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Configure

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AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

Setup Type

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Specify the setup type of the CA

Enterprise certification authorities (CAs) can use Active Directory Domain Services (AD DS) to simplify the management of certificates. Standalone CAs do not use AD DS to issue or manage certificates.

☒ Enterprise CA

Enterprise CAs must be domain members and are typically online to issue certificates or certificate policies.

☐ Standalone CA

Standalone CAs can be members or a workgroup or domain. Standalone CAs do not require AD DS and can be used without a network connection (offline).

[More about Setup Type](#)

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Configure

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AD CS Configuration

DESTINATION SERVER
win2012.mangmaytinh.com

CA Type

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Specify the type of the CA

When you install Active Directory Certificate Services (AD CS), you are creating or extending a public key infrastructure (PKI) hierarchy. A root CA is at the top of the PKI hierarchy and issues its own self-signed certificate. A subordinate CA receives a certificate from the CA above it in the PKI hierarchy.

☒ Root CA

Root CAs are the first and may be the only CAs configured in a PKI hierarchy.

☐ Subordinate CA

Subordinate CAs require an established PKI hierarchy and are authorized to issue certificates by the CA above them in the hierarchy.

[More about CA Type](#)

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Configure

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AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

Private Key

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Specify the type of the private key

To generate and issue certificates to clients, a certification authority (CA) must have a private key.

☒ Create a new private key

Use this option if you do not have a private key or want to create a new private key.

☐ Use existing private key

Use this option to ensure continuity with previously issued certificates when reinstalling a CA.

☐ Select a certificate and use its associated private key

Select this option if you have an existing certificate on this computer or if you want to import a certificate and use its associated private key.

☐ Select an existing private key on this computer

Select this option if you have retained private keys from a previous installation or want to use a private key from an alternate source.

[More about Private Key](#)

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Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

Cryptography for CA

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Specify the cryptographic options

Select a cryptographic provider:

RSA#Microsoft Software Key Storage Provider

Key length:

2048

Select the hash algorithm for signing certificates issued by this CA:

SHA256

SHA384

SHA512

SHA1

MD5

☐ Allow administrator interaction when the private key is accessed by the CA.

[More about Cryptography](#)

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Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

CA Name

Credentials
Role Services
Setup Type
CA Type
Private Key
Cryptography
CA Name
Validity Period
Certificate Database
Confirmation
Progress
Results

Specify the name of the CA

Type a common name to identify this certification authority (CA). This name is added to all certificates issued by the CA. Distinguished name suffix values are automatically generated but can be modified.

Common name for this CA:

Root-CA

Distinguished name suffix:

DC=mangmaytin,DC=com

Preview of distinguished name:

CN=Root-CA,DC=mangmaytin,DC=com

[More about CA Name](#)

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Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

Validity Period

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

Specify the validity period

Select the validity period for the certificate generated for this certification authority (CA):

5

Years

CA expiration Date: 9/22/2023 5:39:00 PM

The validity period configured for this CA certificate should exceed the validity period for the certificates it will issue.

[More about Validity Period](#)

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Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

CA Database

Credentials
Role Services
Setup Type
CA Type
Private Key
 Cryptography
 CA Name
 Validity Period
Certificate Database
Confirmation
Progress
Results

Specify the database locations

Certificate database location:
C:\Windows\system32\CertLog

Certificate database log location:
C:\Windows\system32\CertLog

[More about CA Database](#)

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Configure

Cancel

AD CS Configuration

Confirmation

DESTINATION SERVER
win2012.mangmaytinh.com

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

To configure the following roles, role services, or features, click Configure.

Active Directory Certificate Services

Certification Authority

CA Type:Enterprise Root

Cryptographic provider:RSA#Microsoft Software Key Storage Provider

Hash Algorithm:SHA1

Key Length:2048

Allow Administrator Interaction:Disabled

Certificate Validity Period:9/22/2023 5:39:00 PM

Distinguished Name:CN=Root-CA,DC=mangmaytinh,DC=com

Certificate Database Location:C:\Windows\system32\CertLog

Certificate Database Log Location:C:\Windows\system32\CertLog

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Configure

Cancel

AD CS Configuration

DESTINATION SERVER
win2012.mangmaytin.com

Progress

Credentials

Role Services

Setup Type

CA Type

Private Key

Cryptography

CA Name

Validity Period

Certificate Database

Confirmation

Progress

Results

The following roles, role services, or features are being configured:

Configuring...

Active Directory Certificate Services

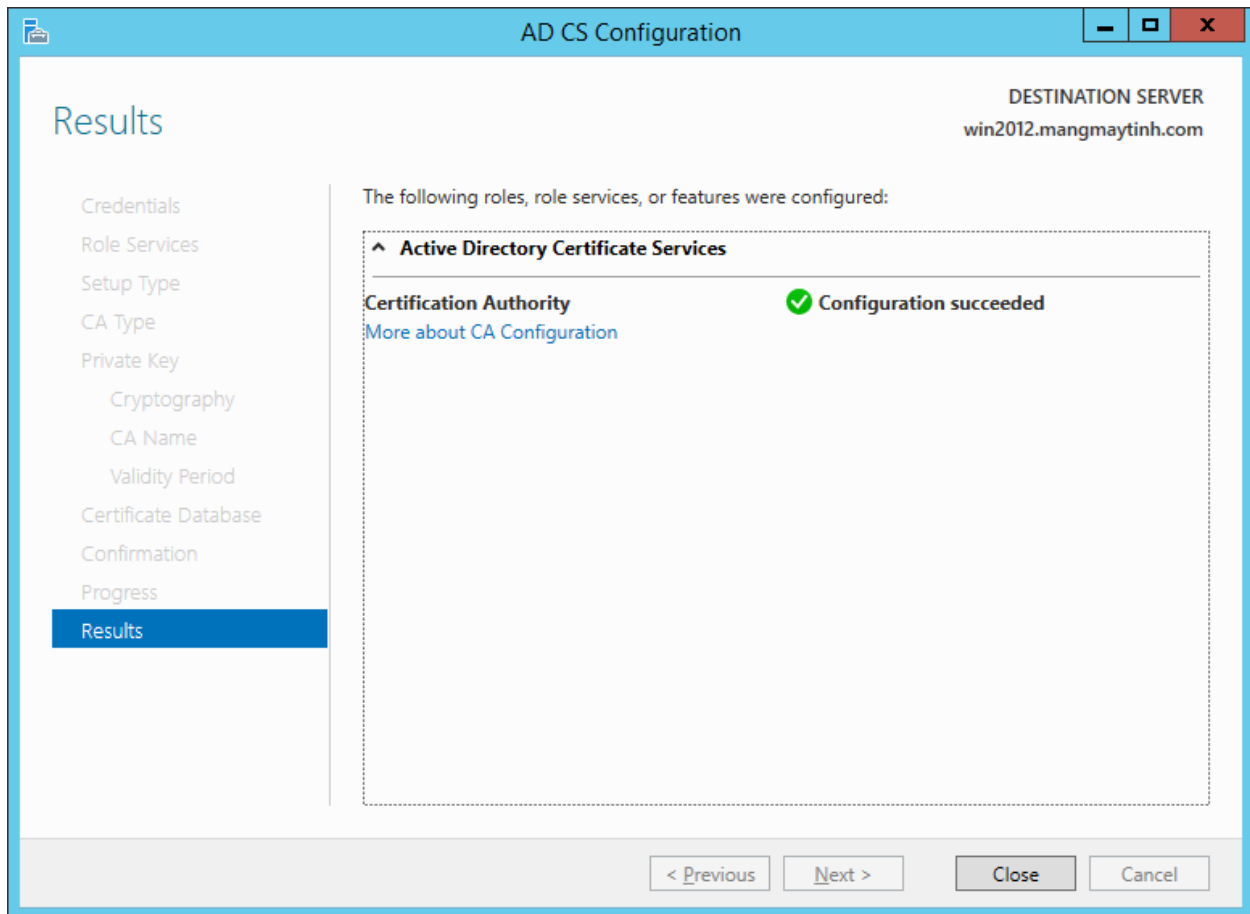
Certification Authority

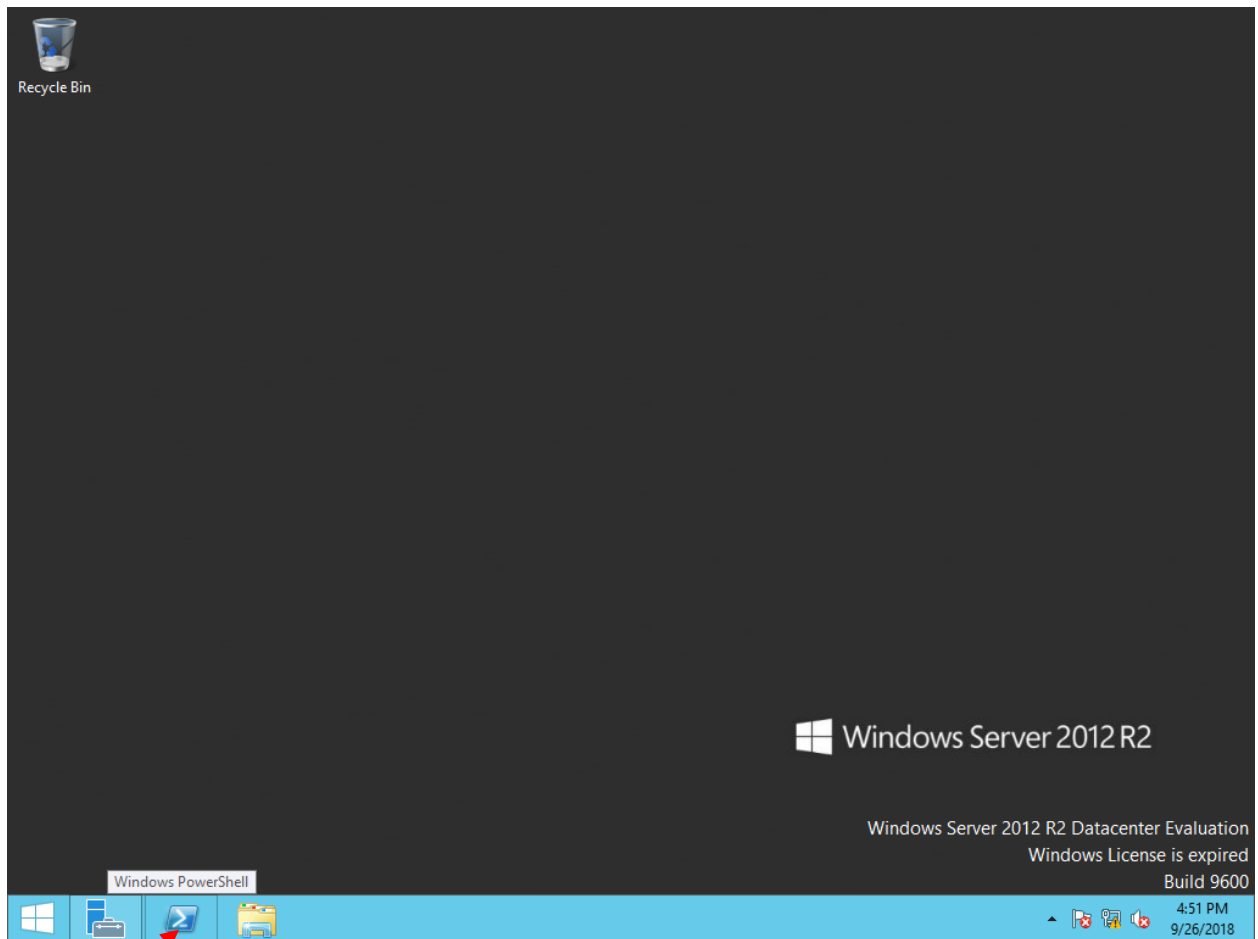
< Previous

Next >

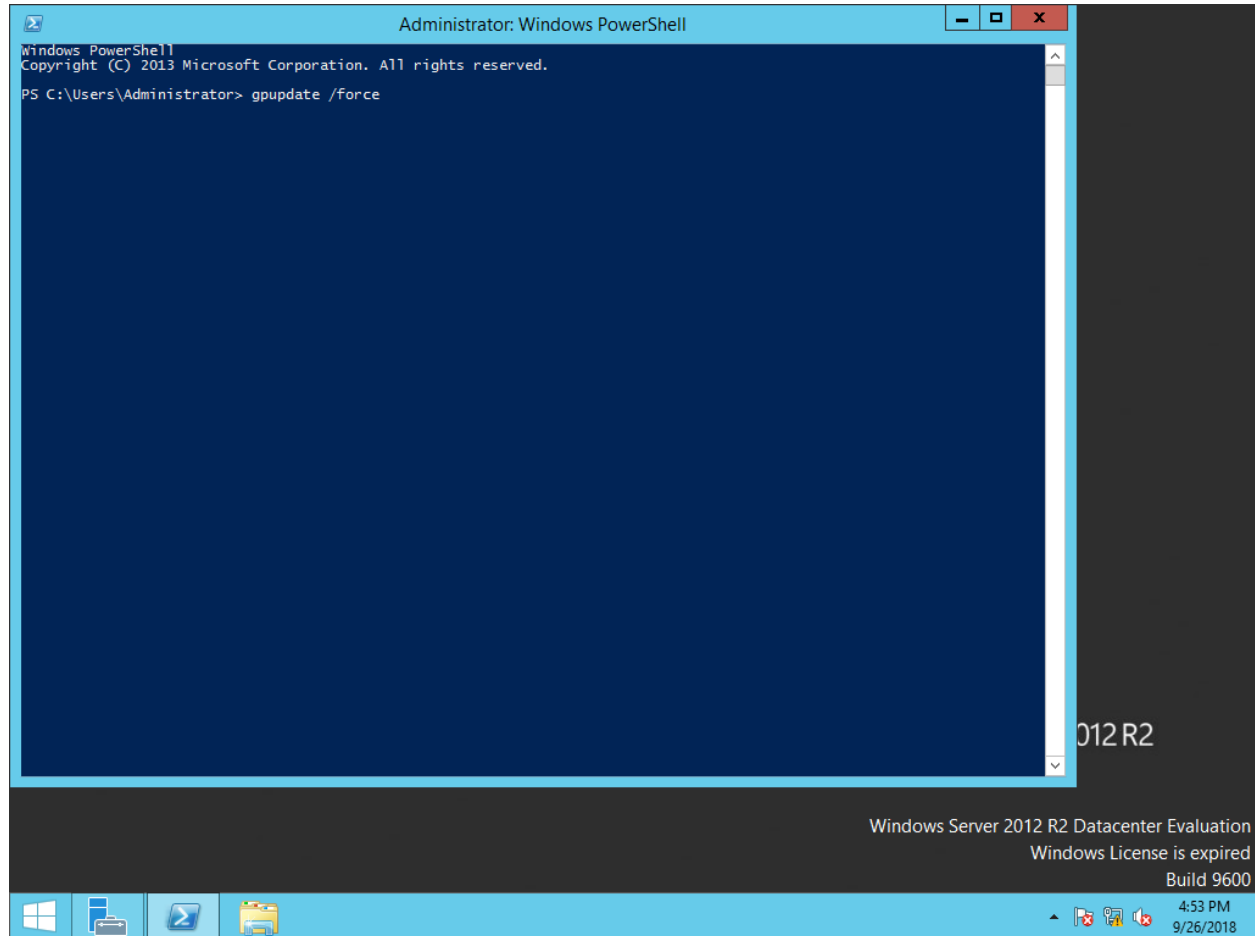
Configure

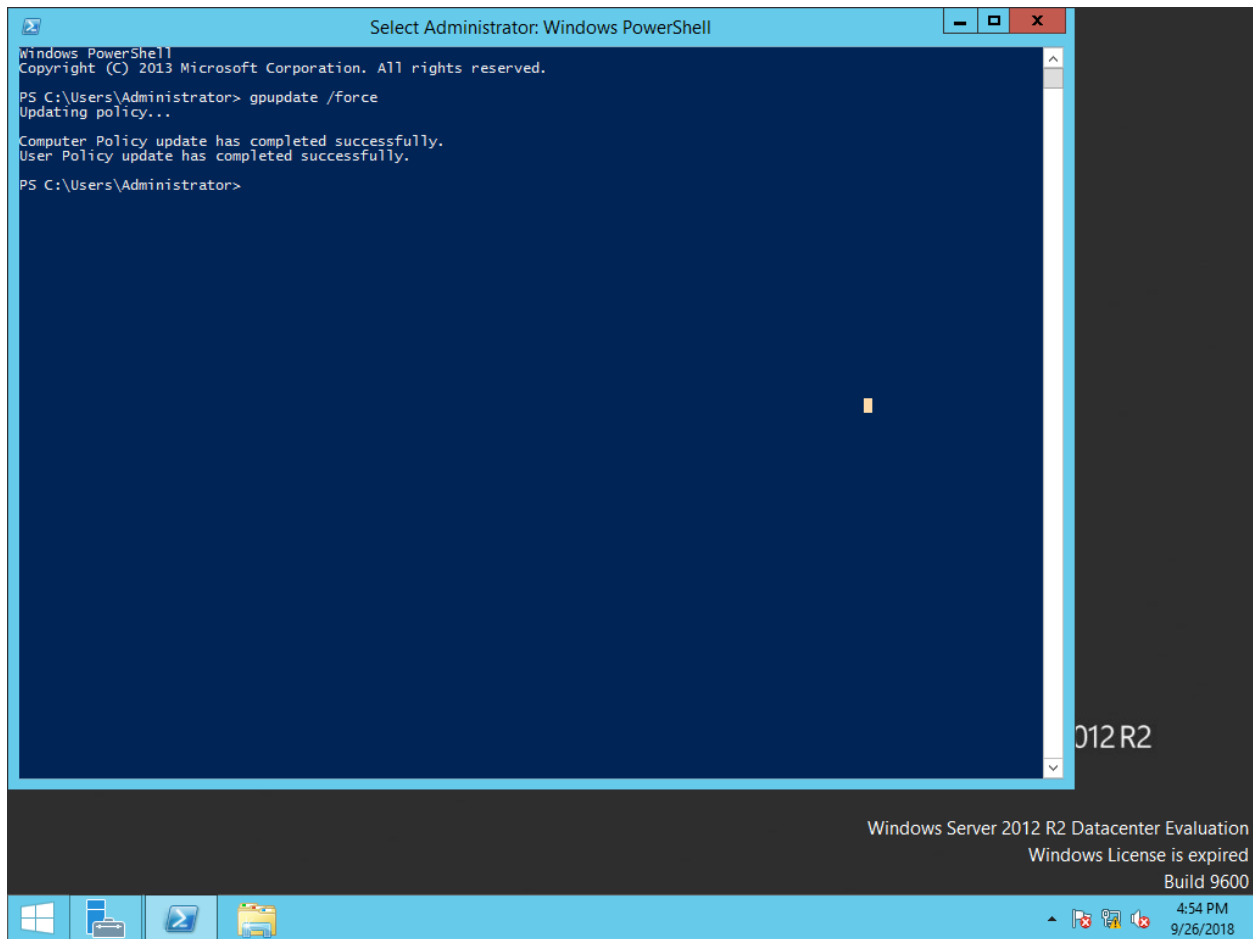
Cancel

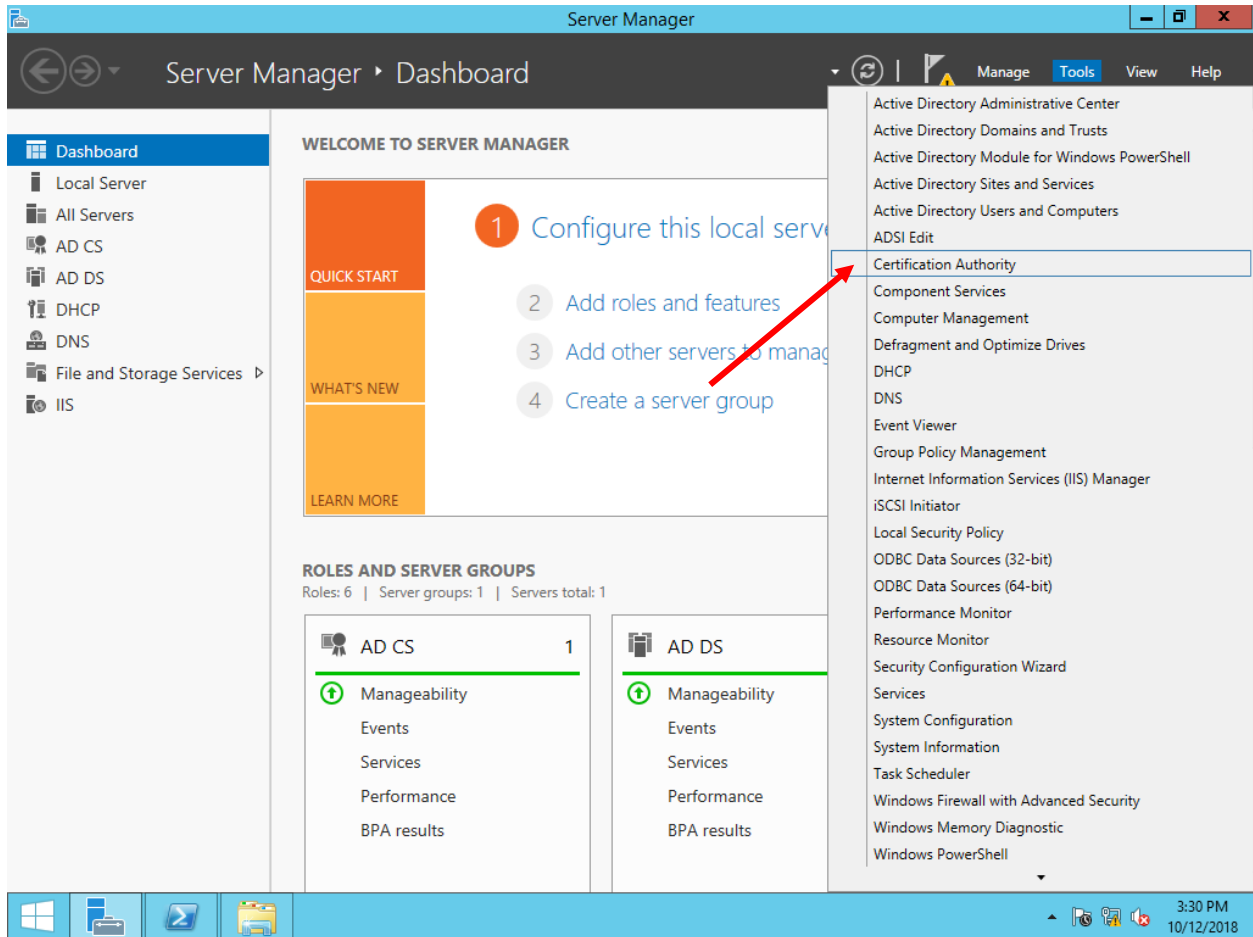


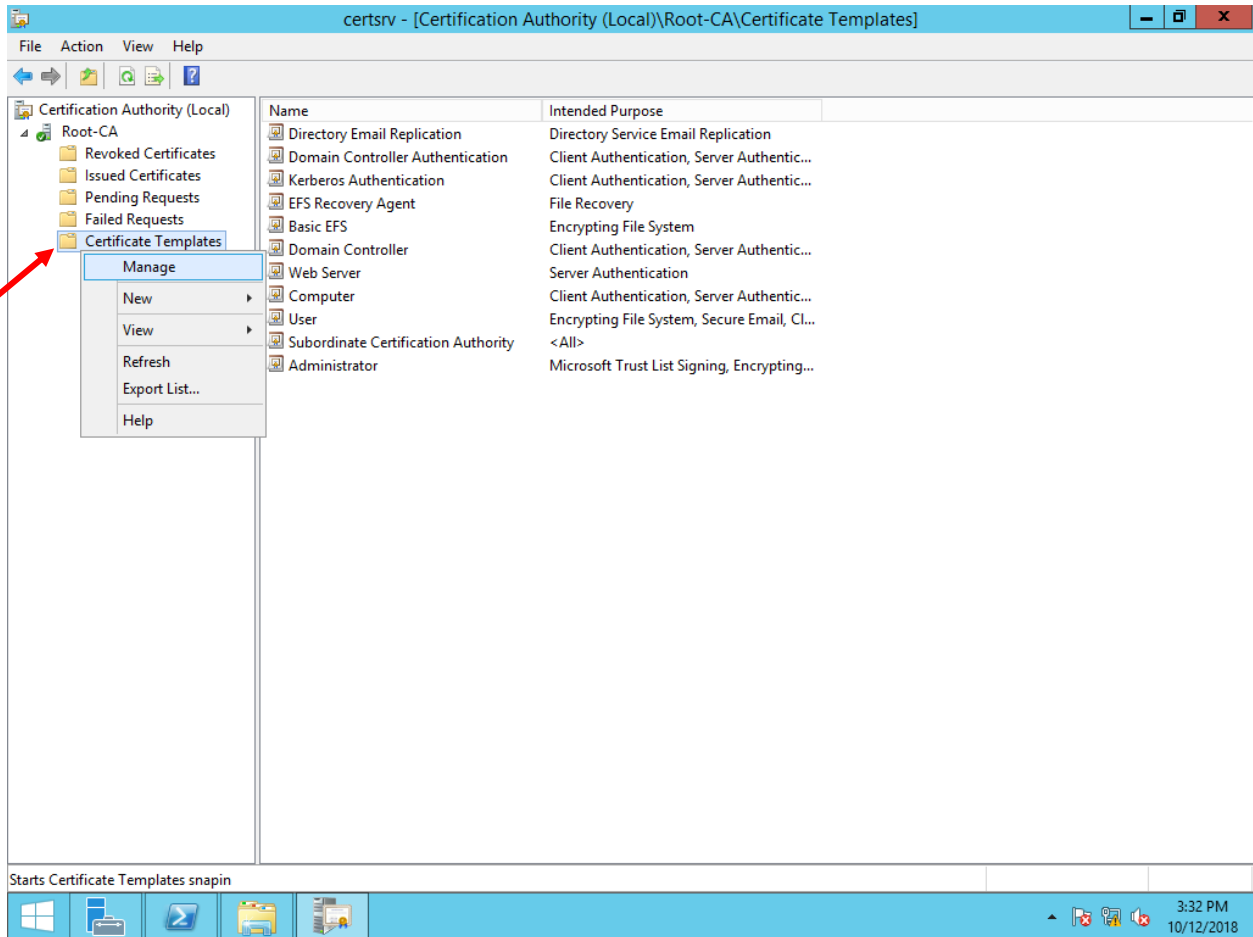


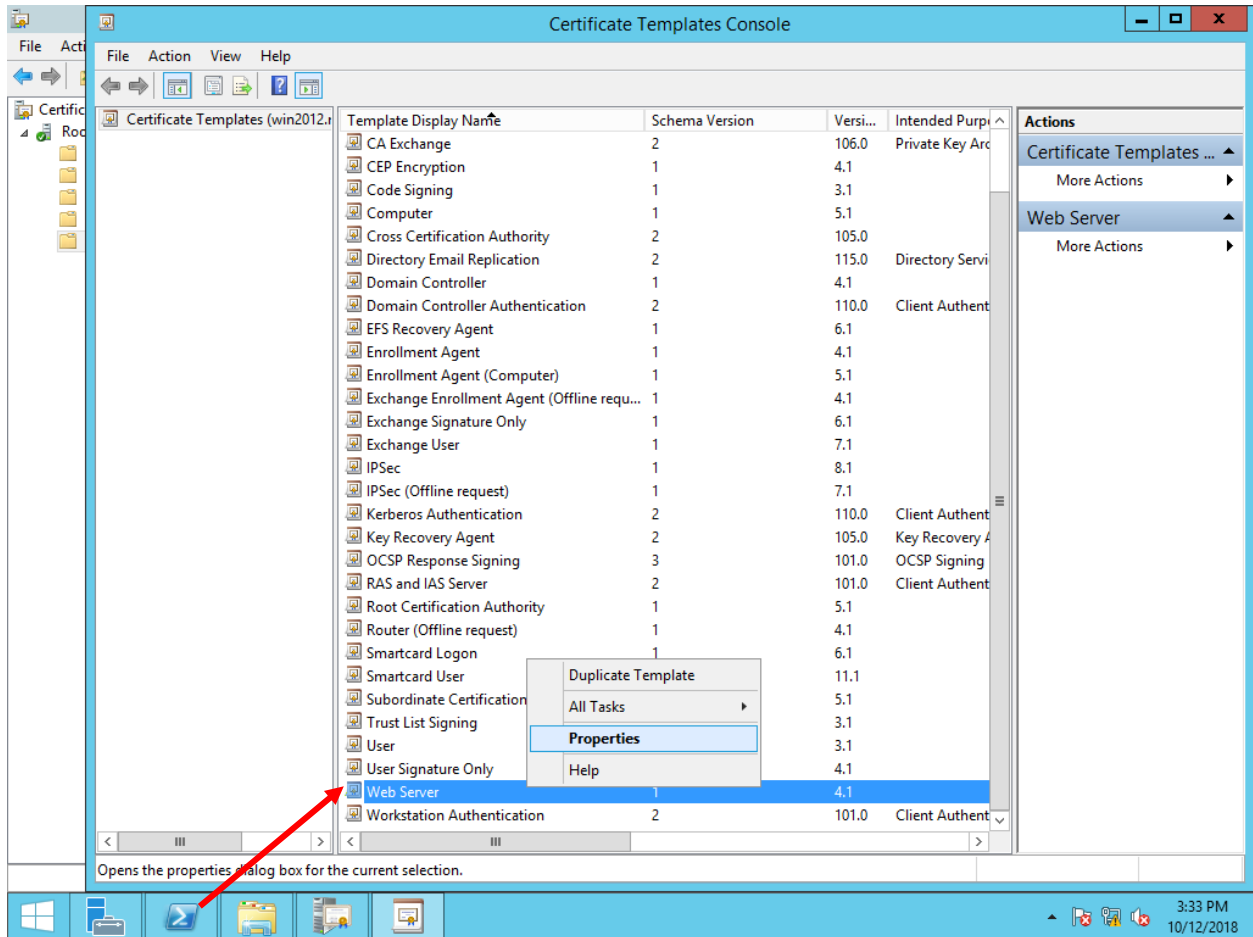
Mở CMD, cập nhật Group policies

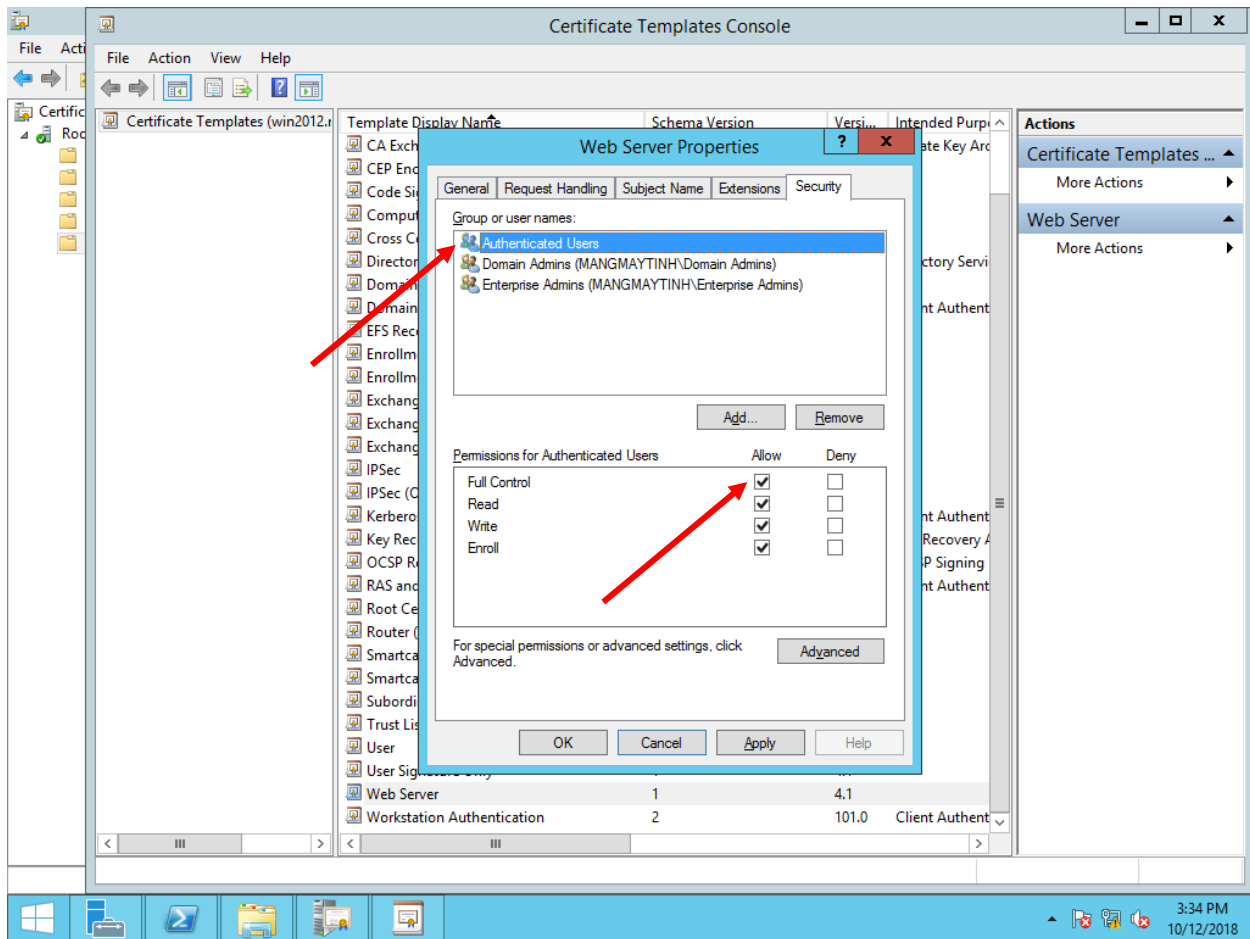


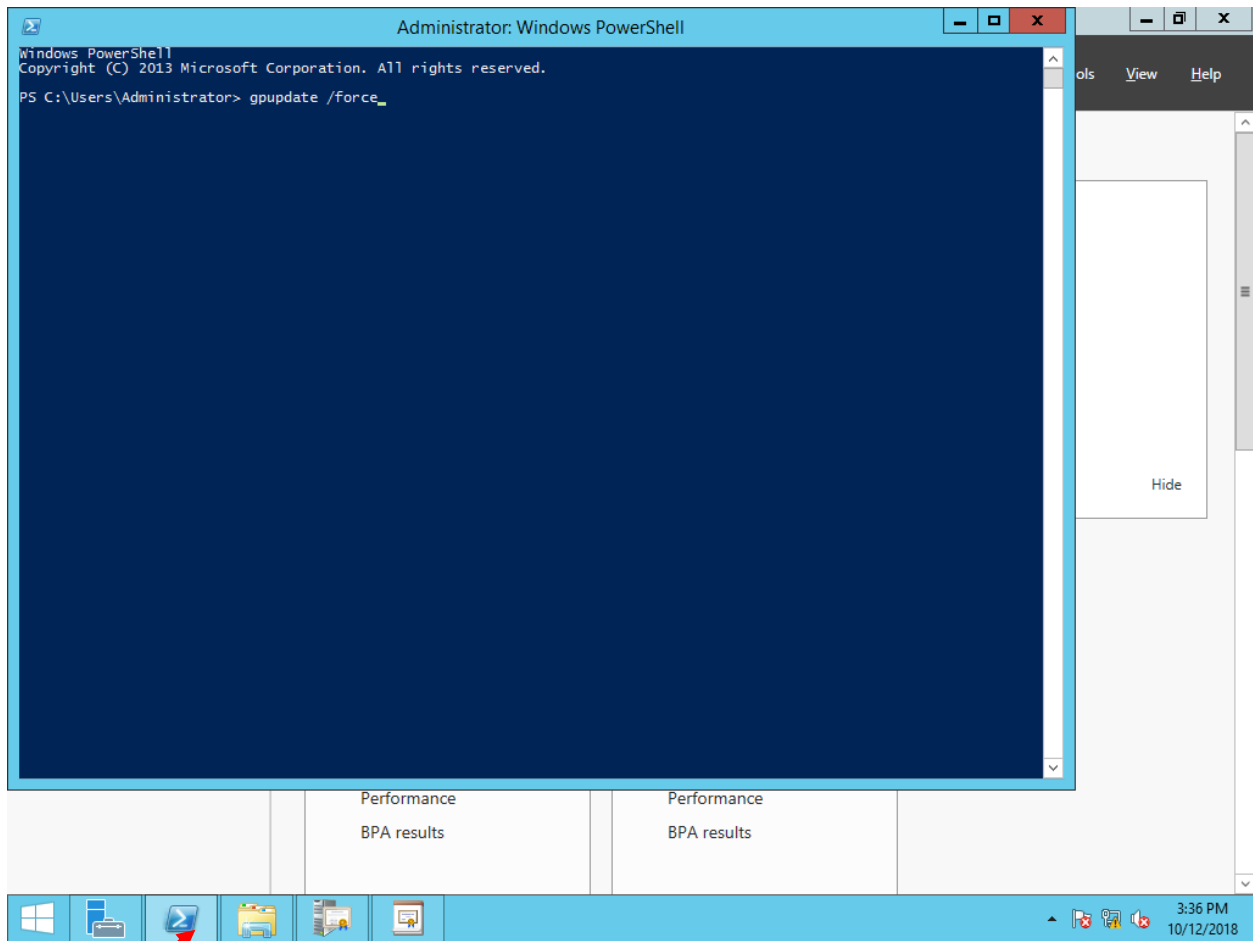


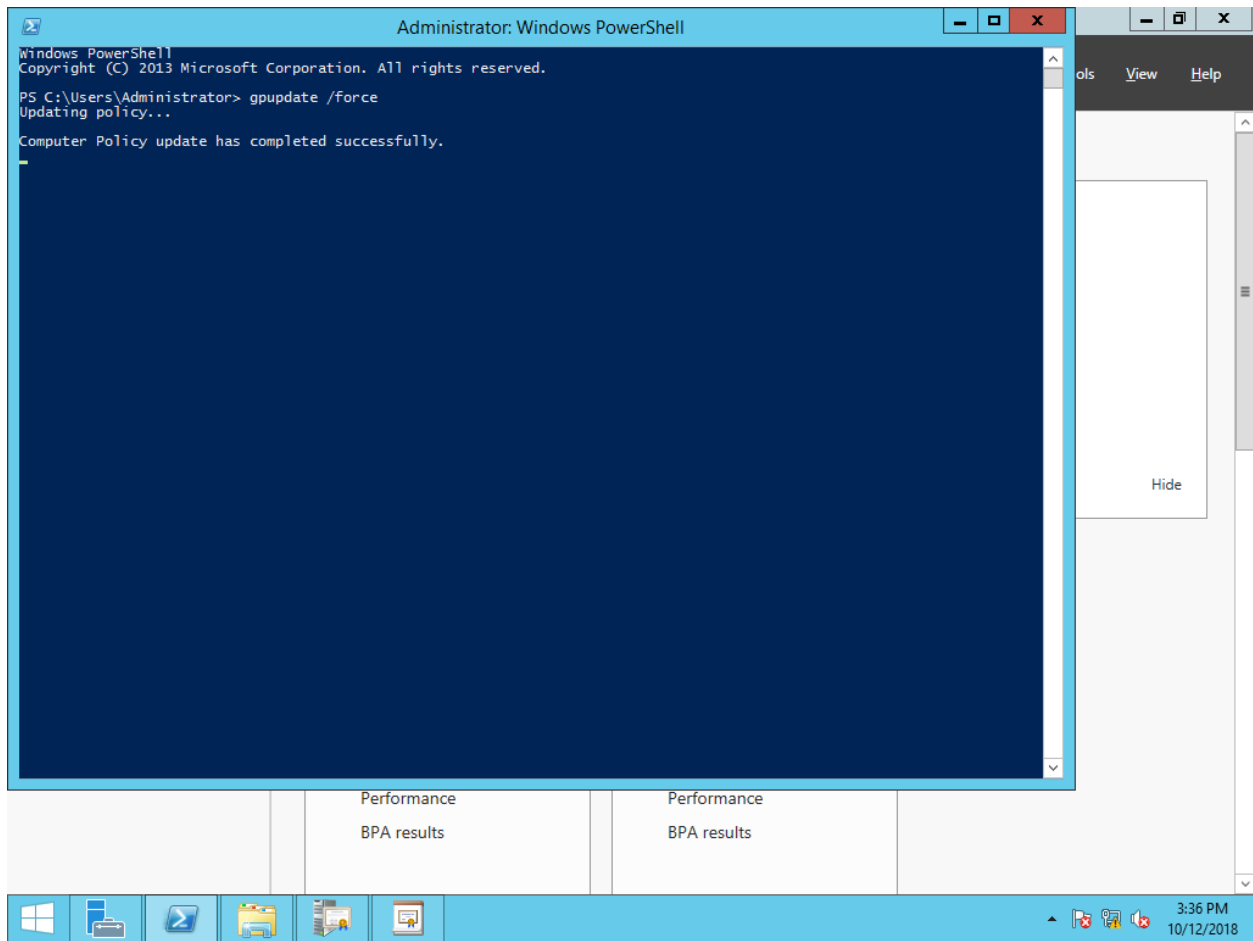


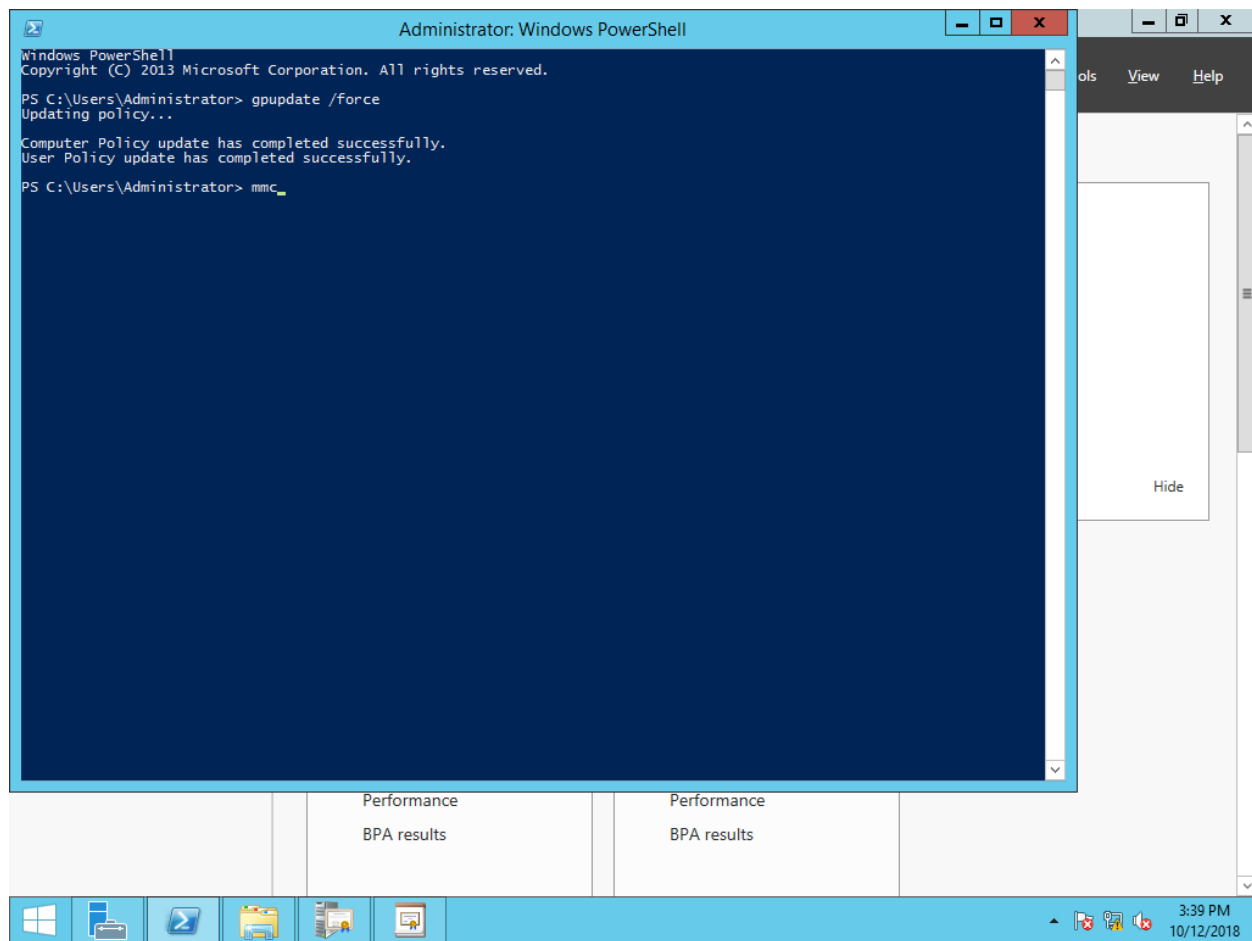




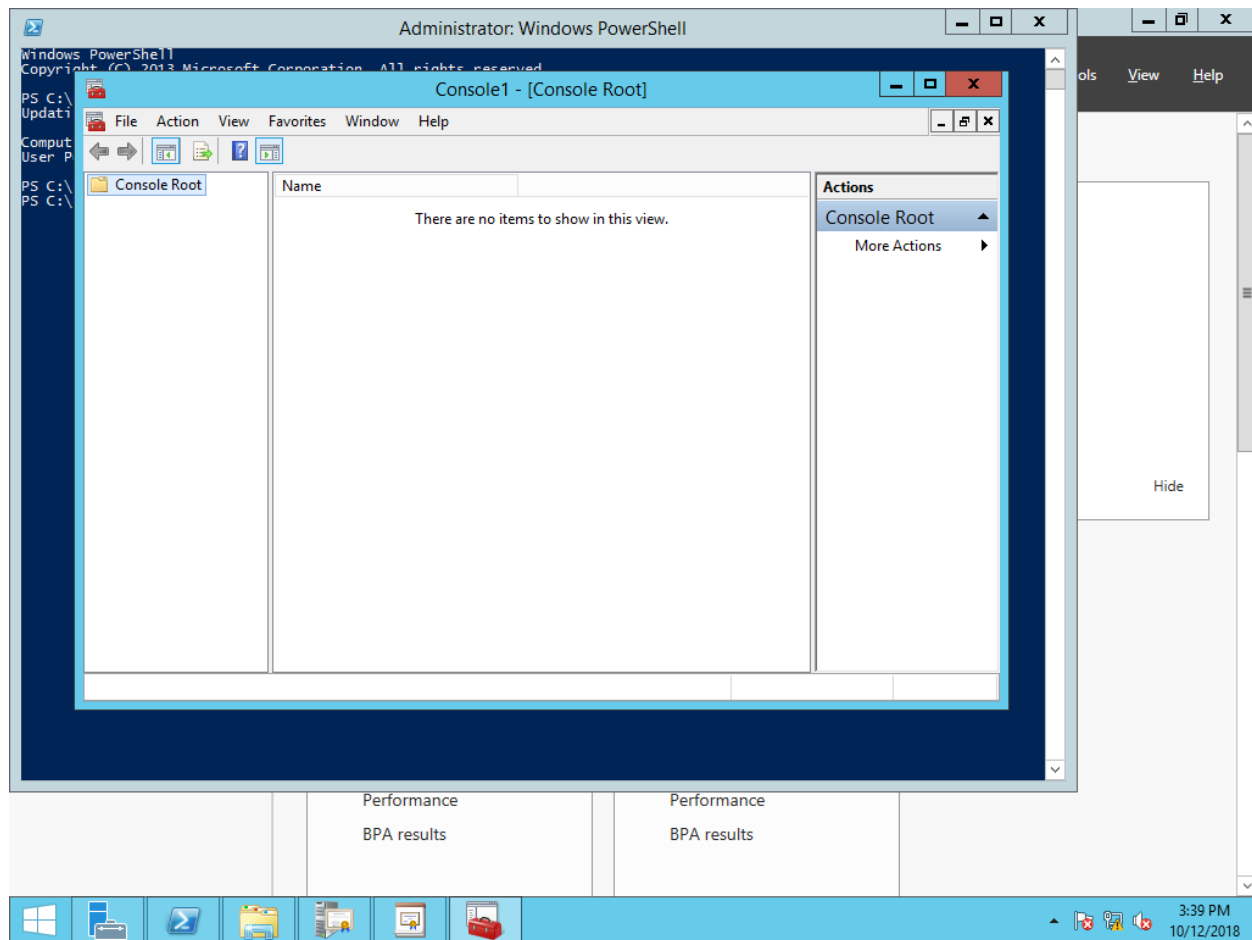


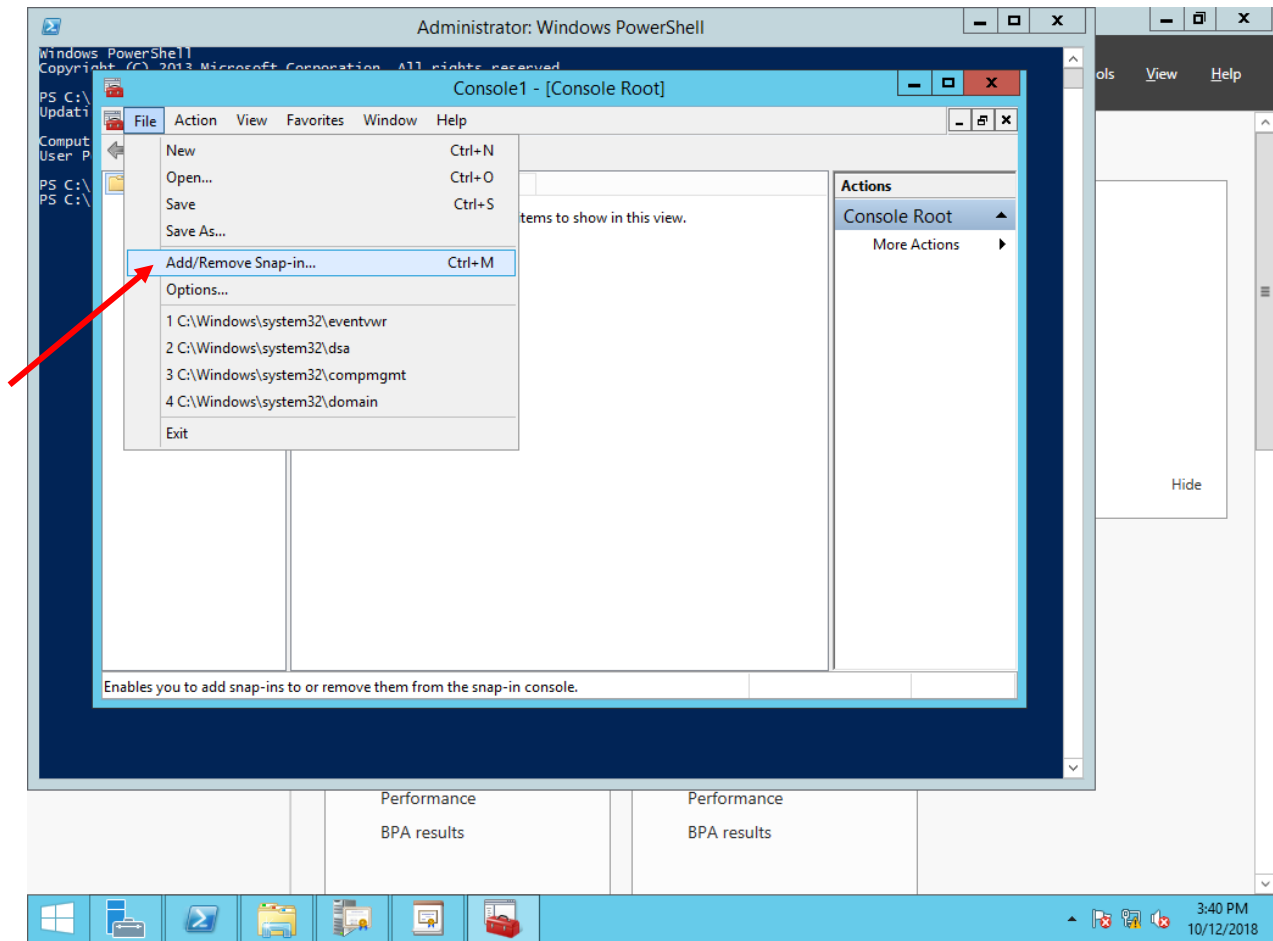


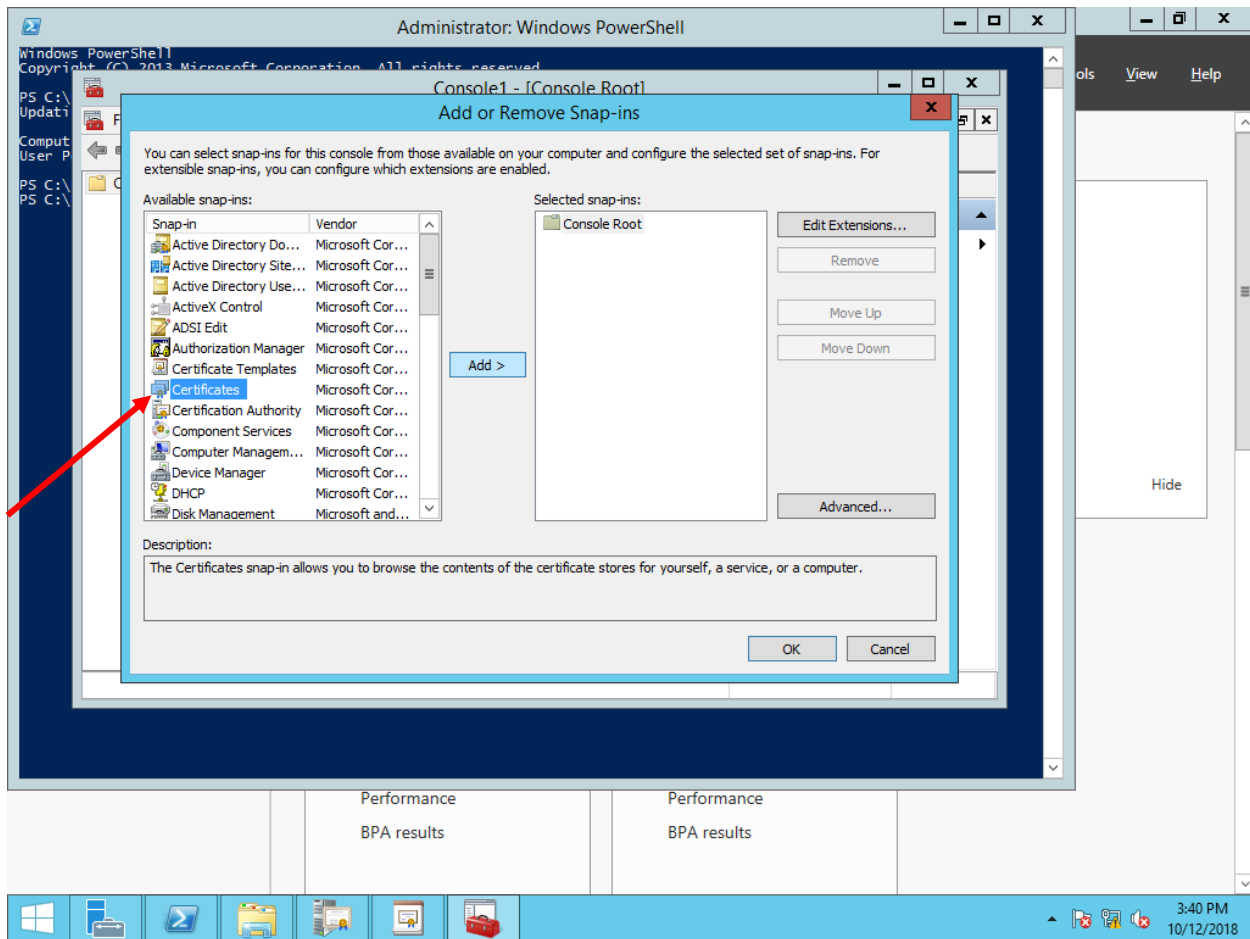


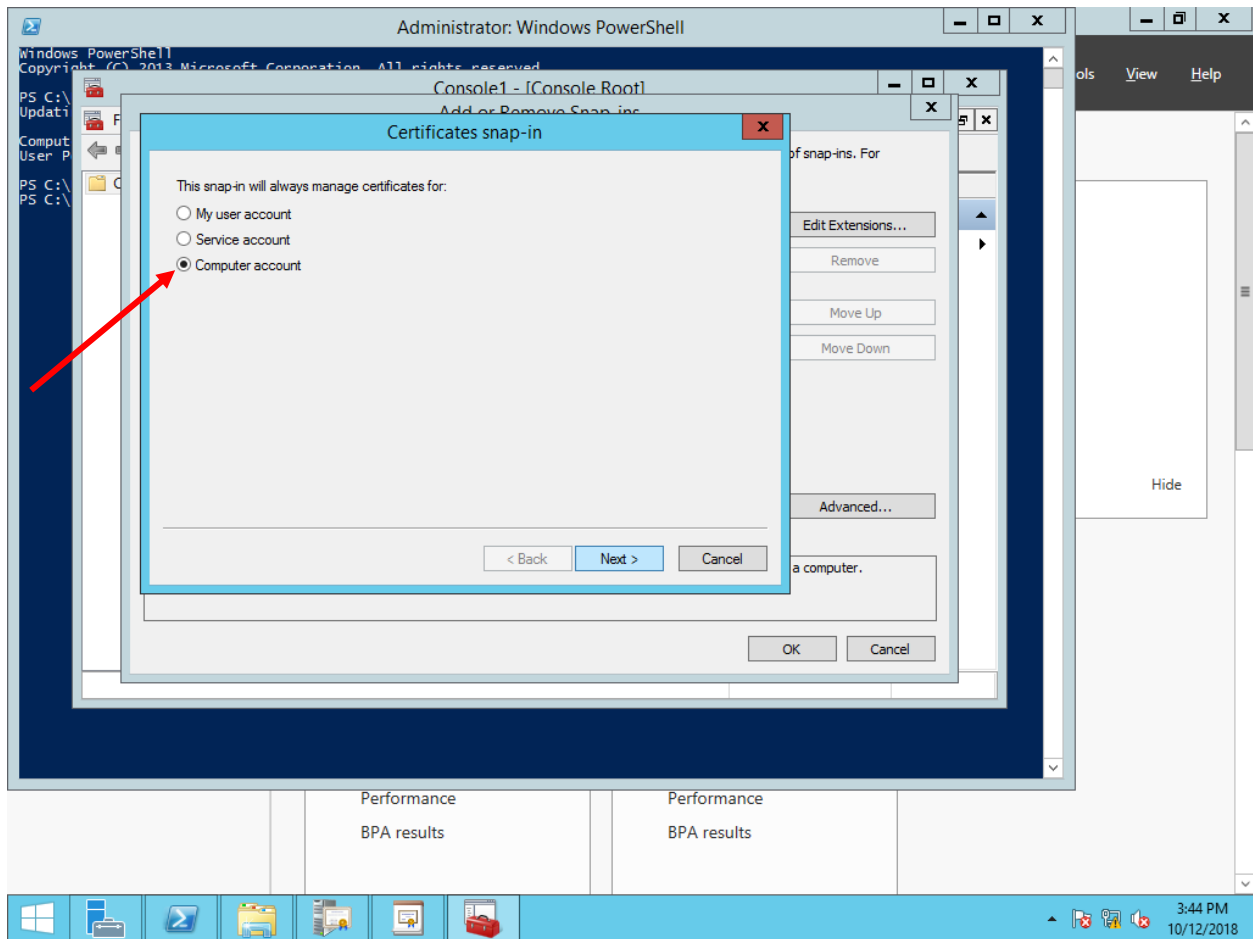


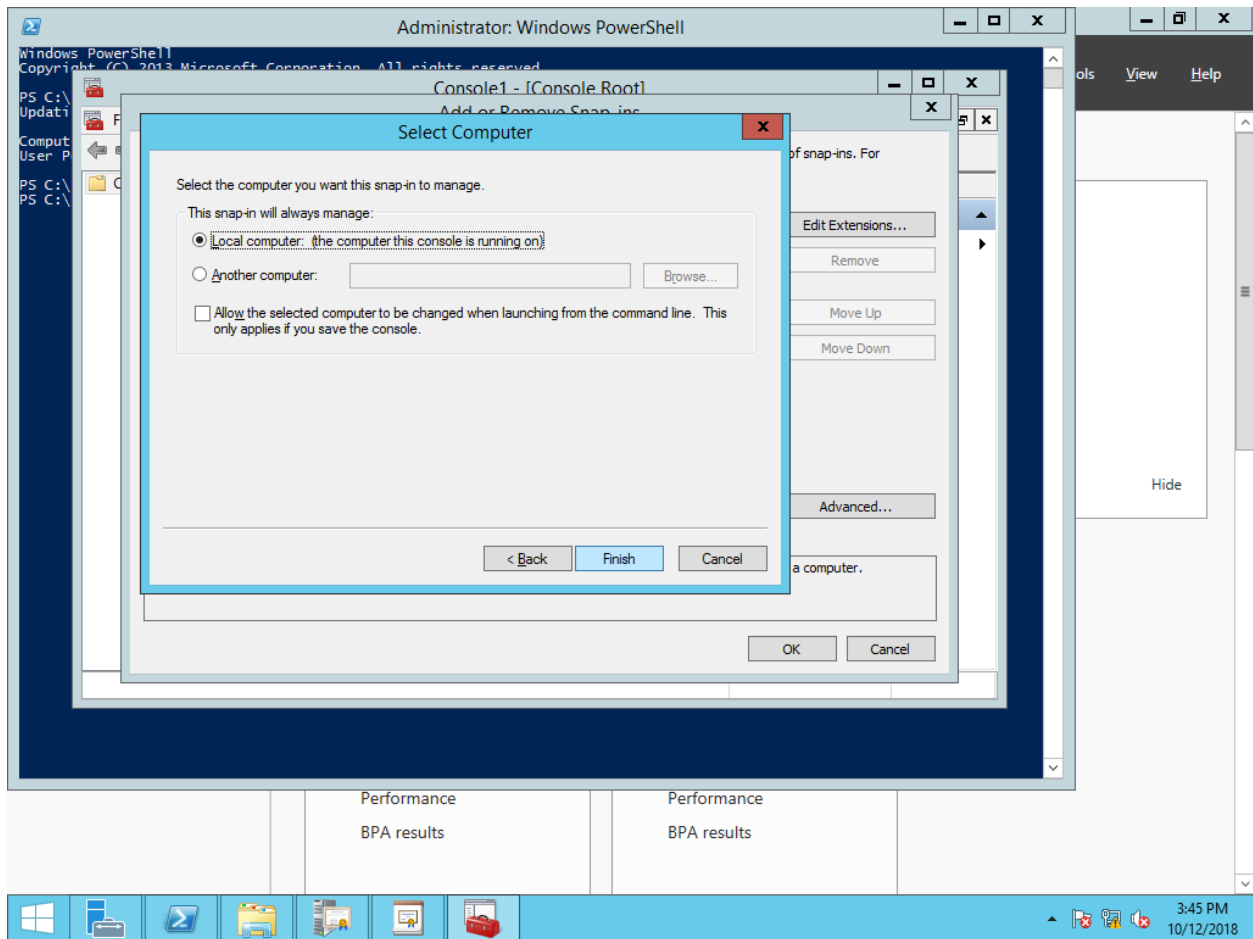
4. Xin cấp chứng chỉ cho Web site www.mangmaytinhh.com

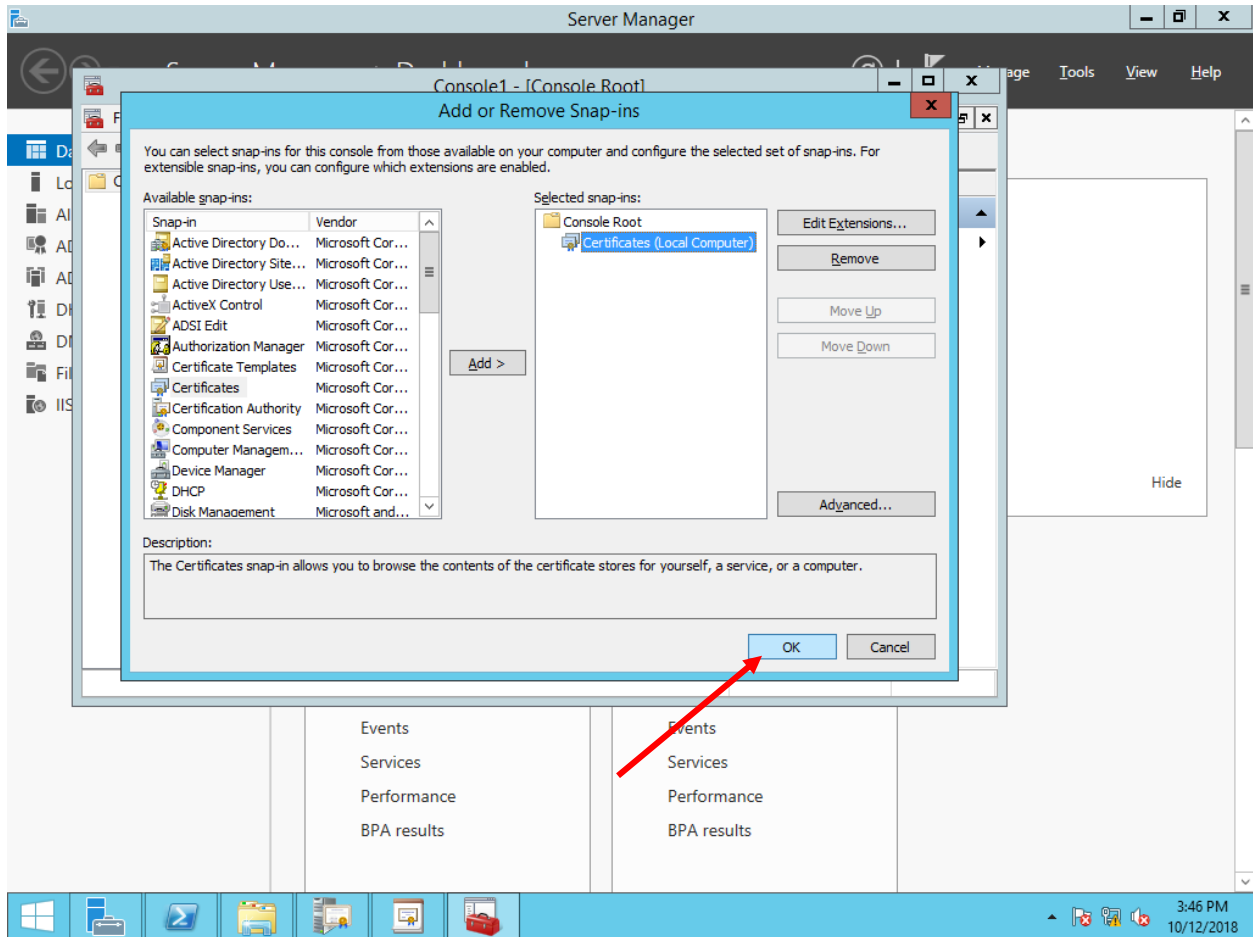


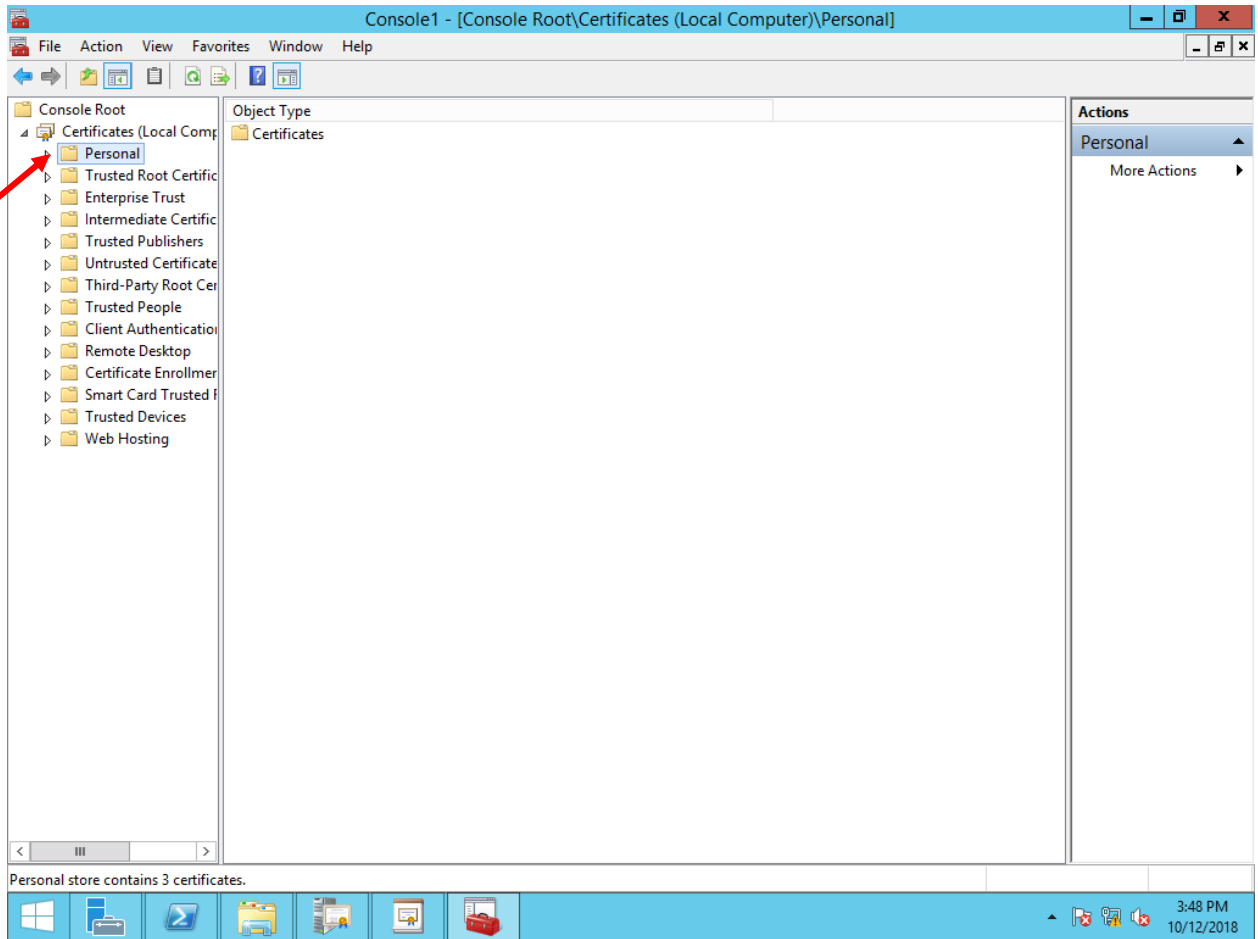


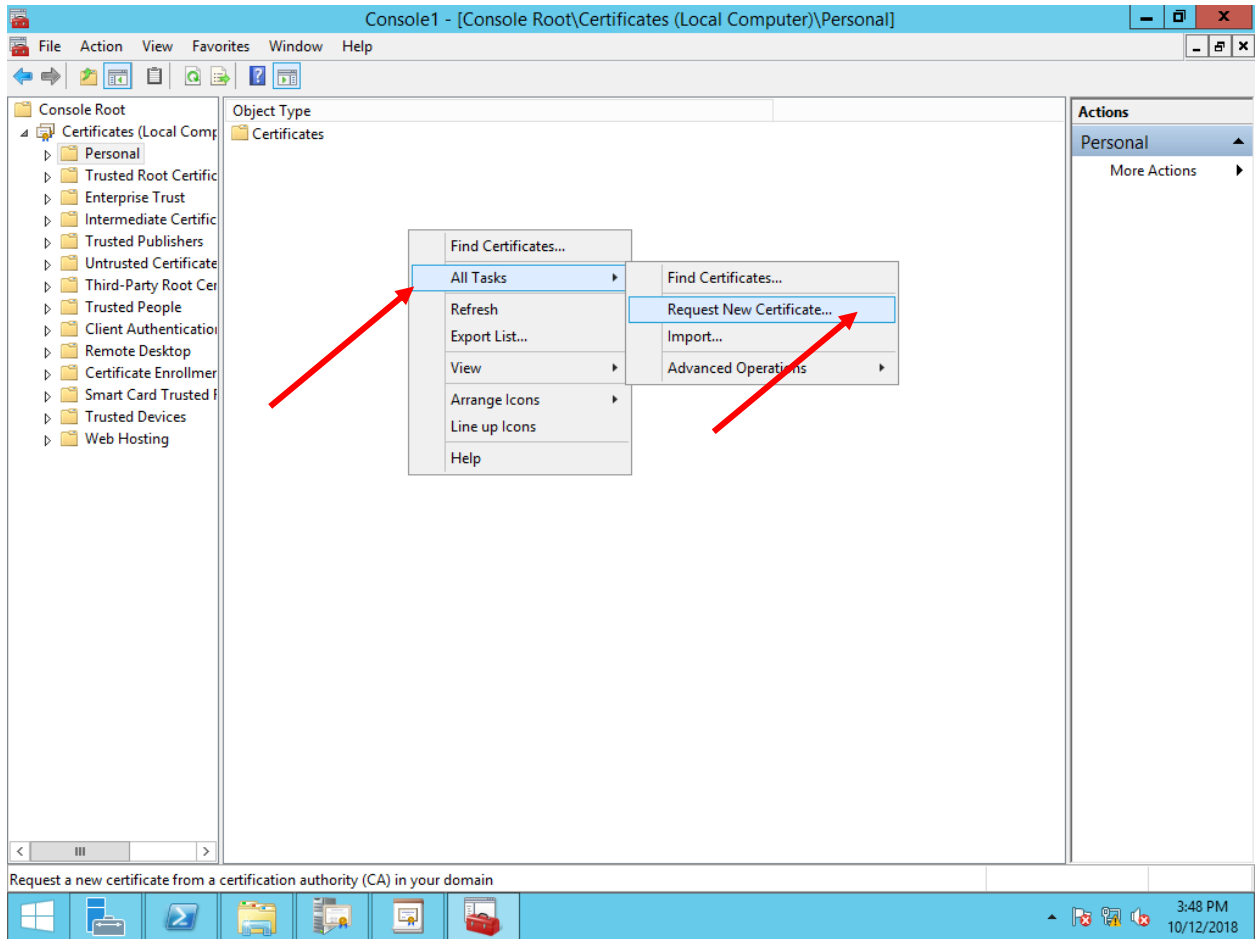


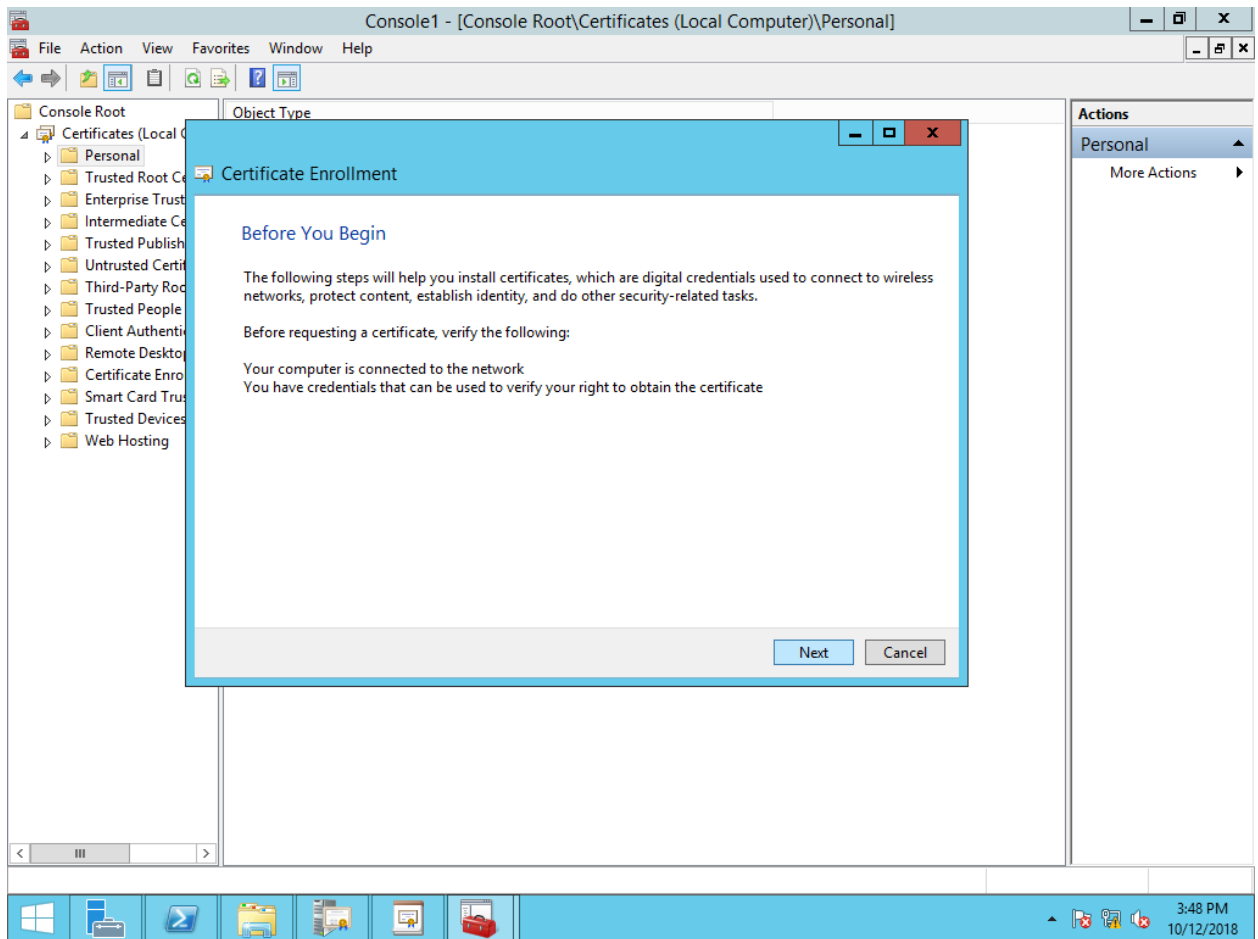


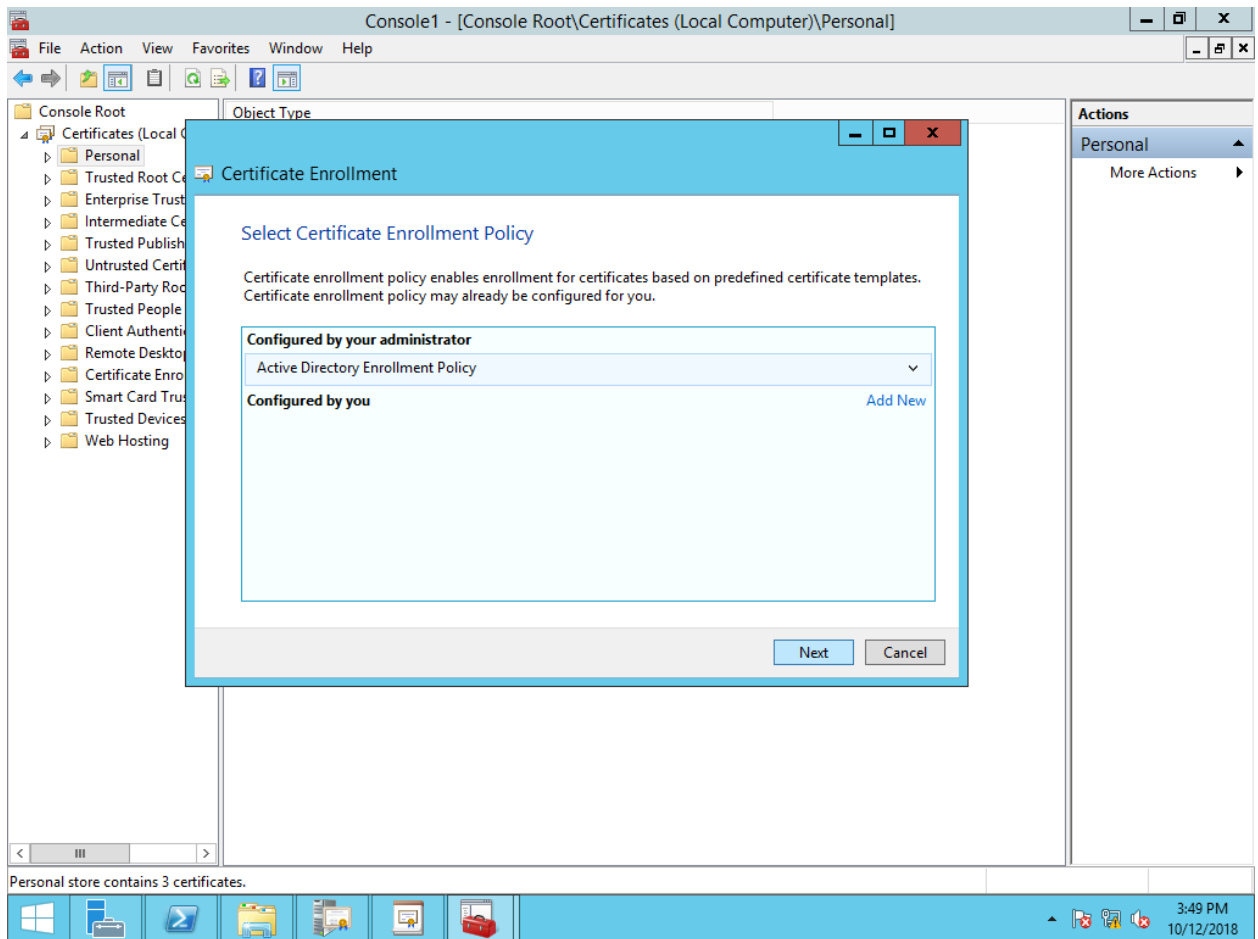


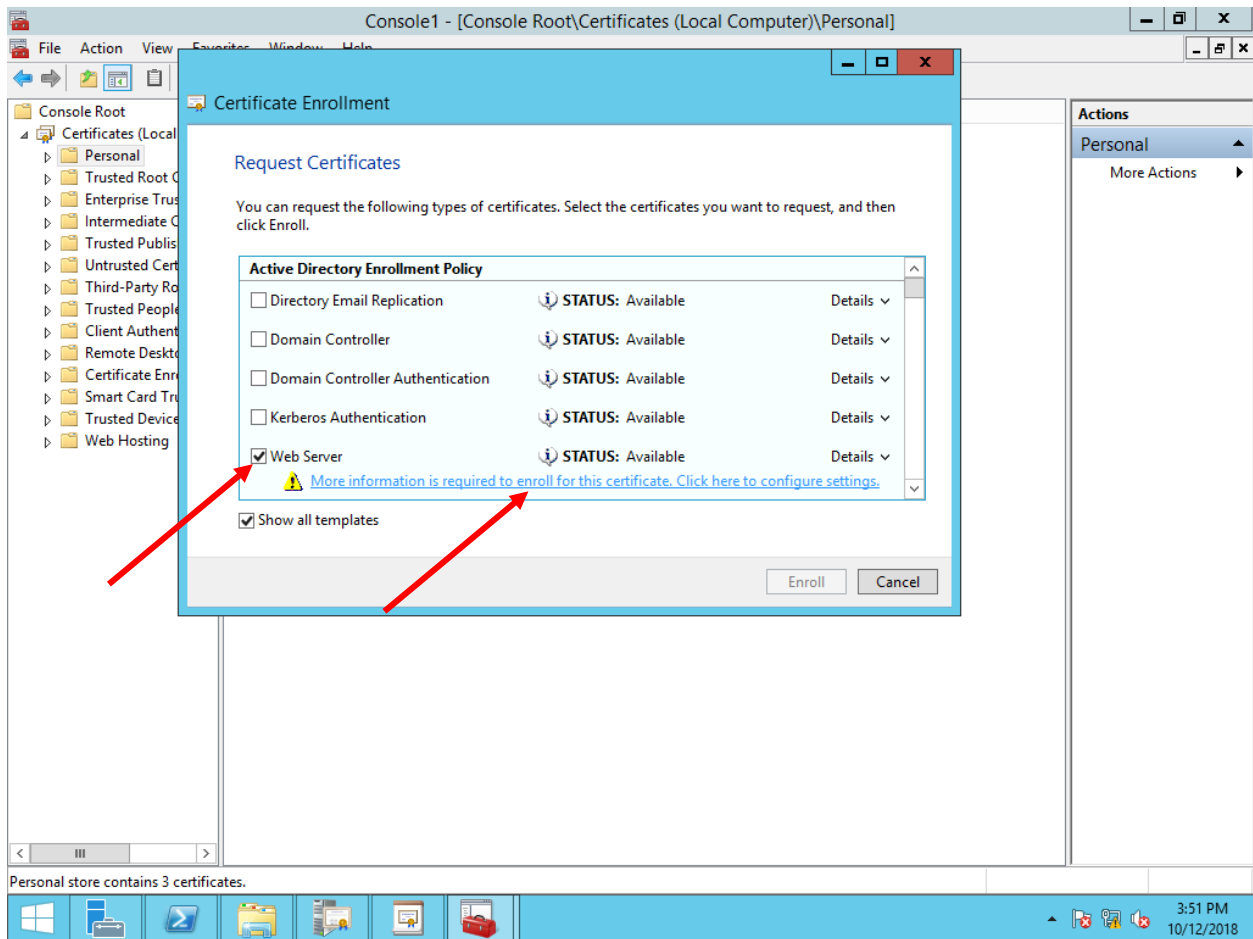


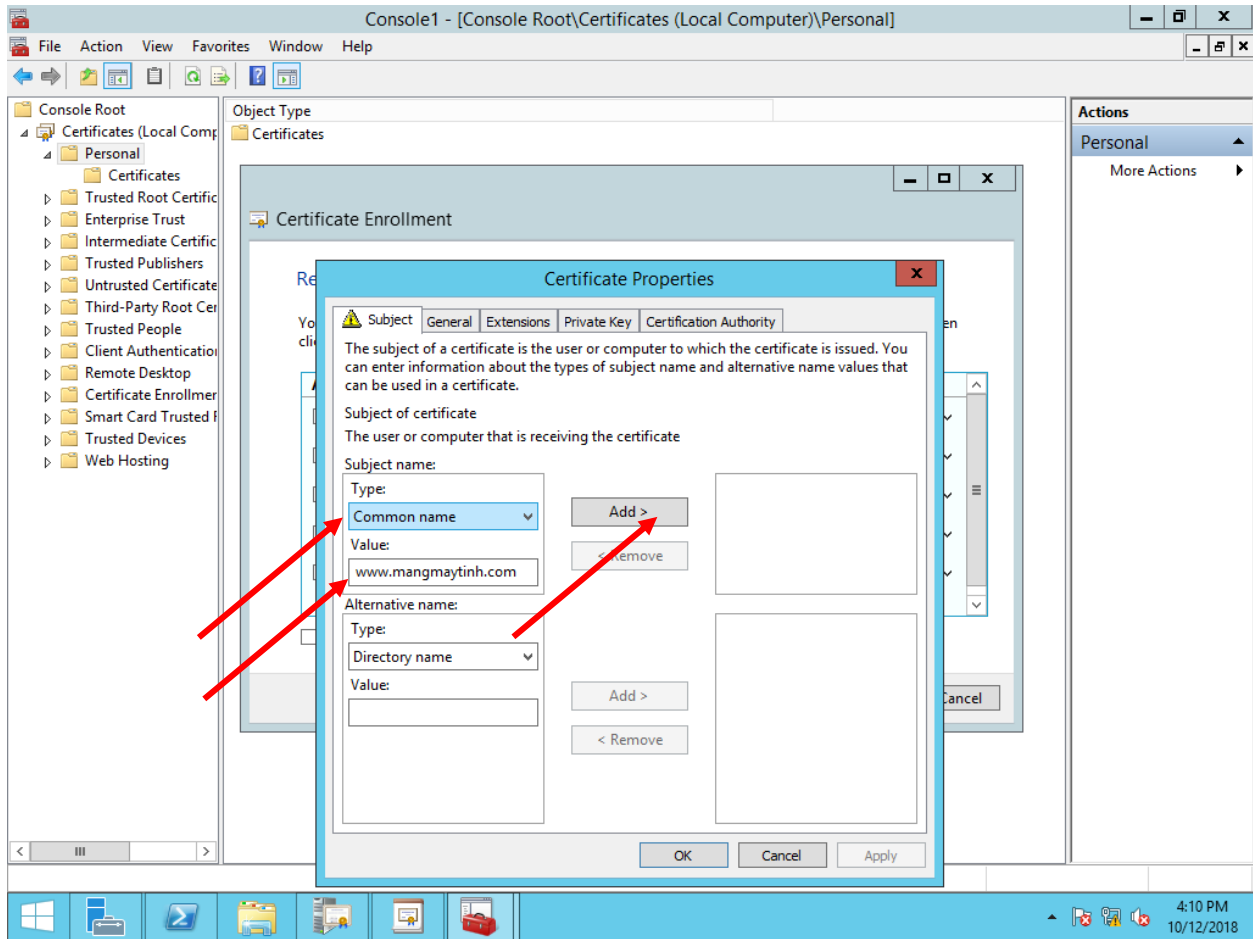


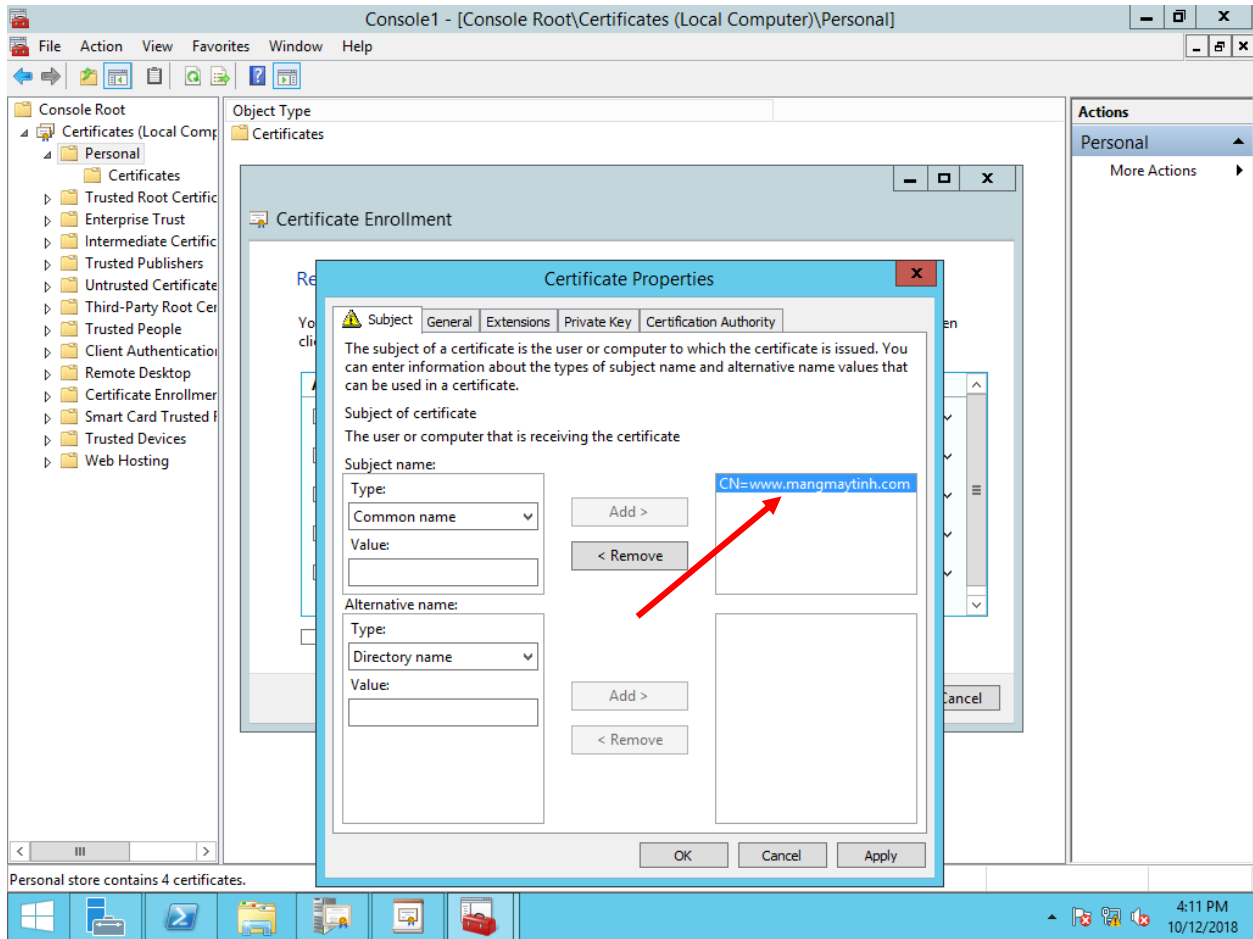


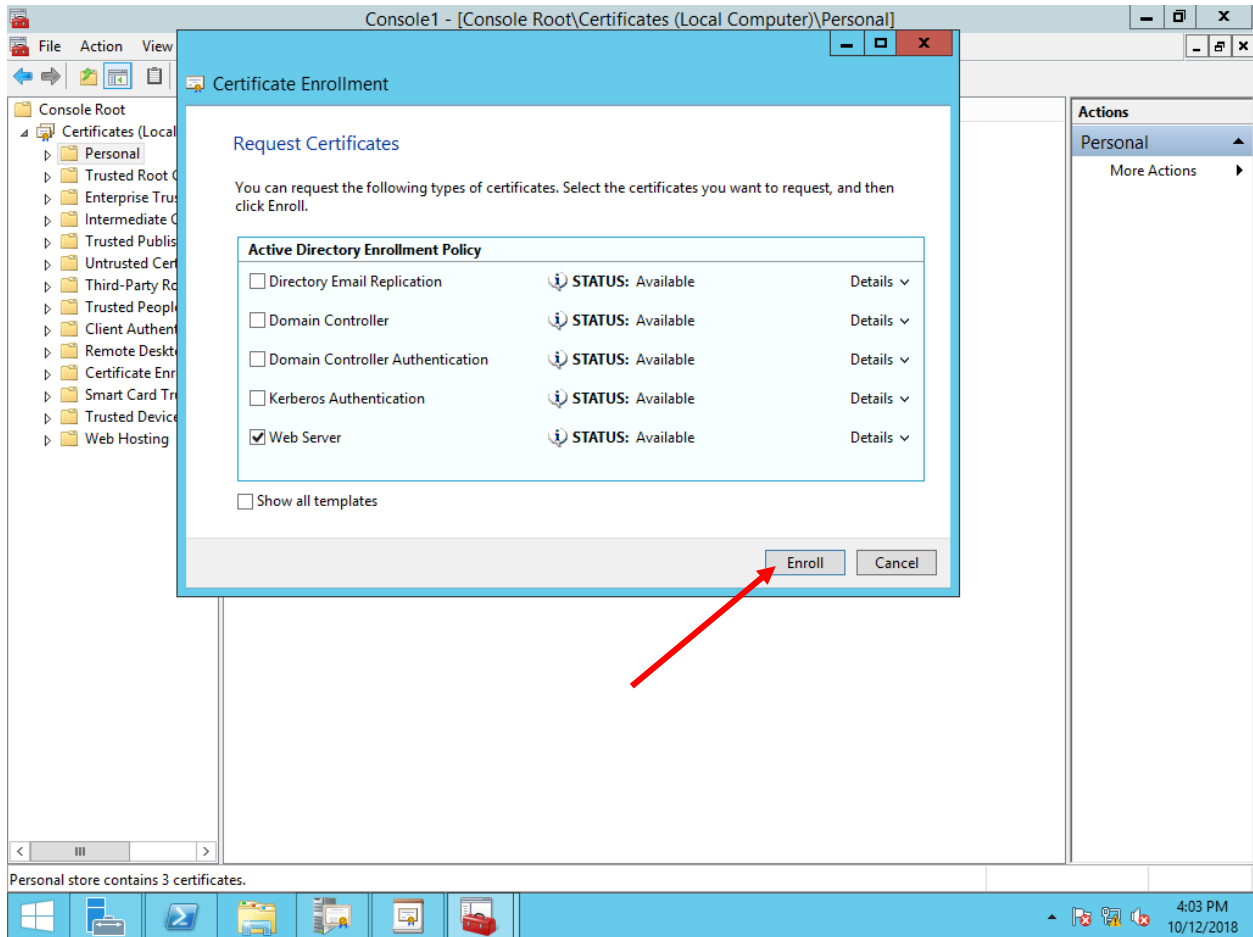


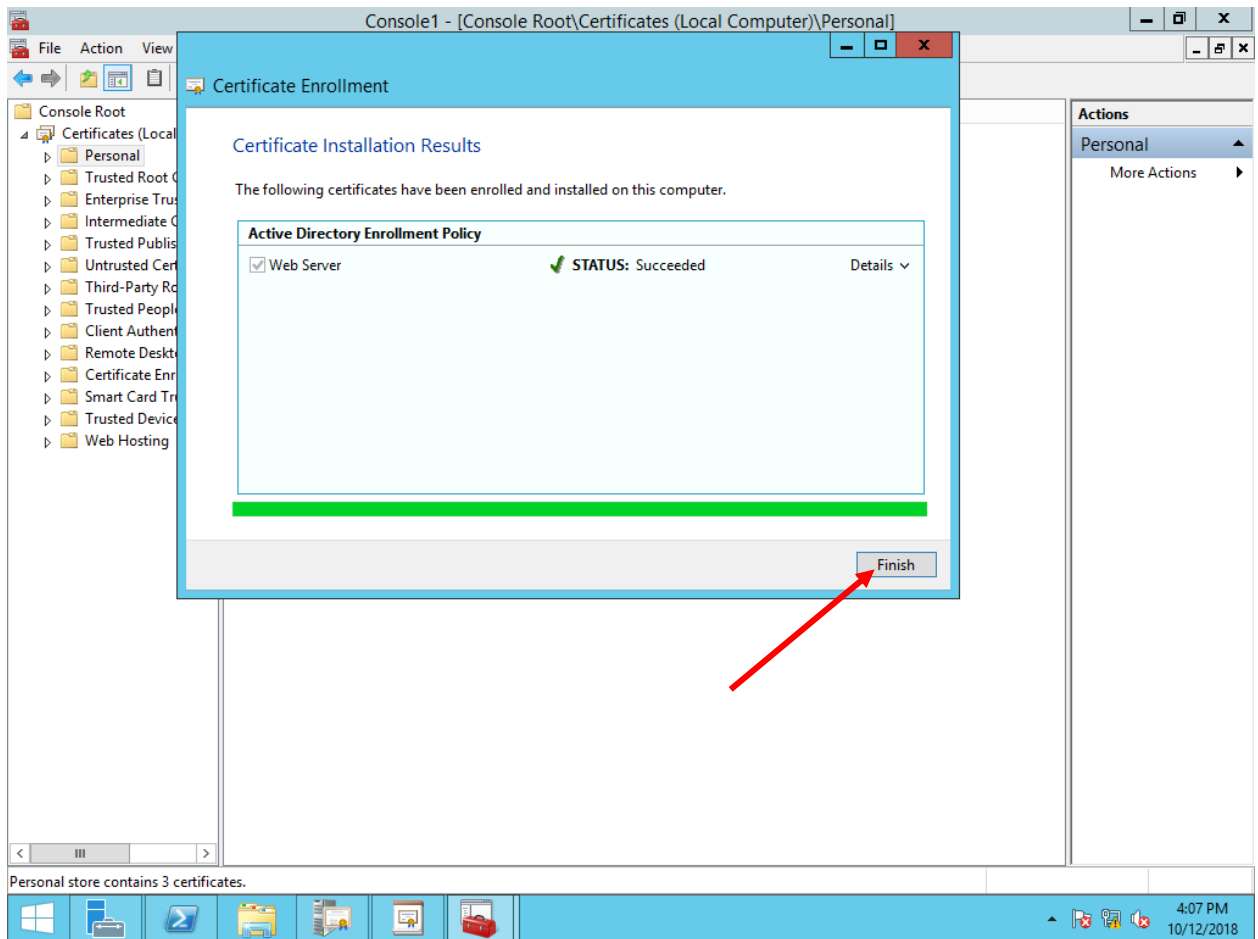












Console1 - [Console Root\Certificates (Local Computer)\Personal\Certificates]

File Action View Favorites Window Help

Console Root

- Certificates (Local Computer)
 - Personal
 - Certificates
 - Trusted Root Certificates
 - Enterprise Trust
 - Intermediate Certificates
 - Trusted Publishers
 - Untrusted Certificate
 - Third-Party Root Certificates
 - Trusted People
 - Client Authentication
 - Remote Desktop
 - Certificate Enrollment
 - Smart Card Trusted
 - Trusted Devices
 - Web Hosting

Issued To	Issued By	Expiration Date	Intended Purposes	Friendly Name
Root-CA	Root-CA	9/22/2023	<All>	<None>
win2012.mangmaytin...	Root-CA	9/26/2019	Client Authentication	<None>
www.mangmaytin...	Root-CA	9/25/2020	Server Authentication	<None>

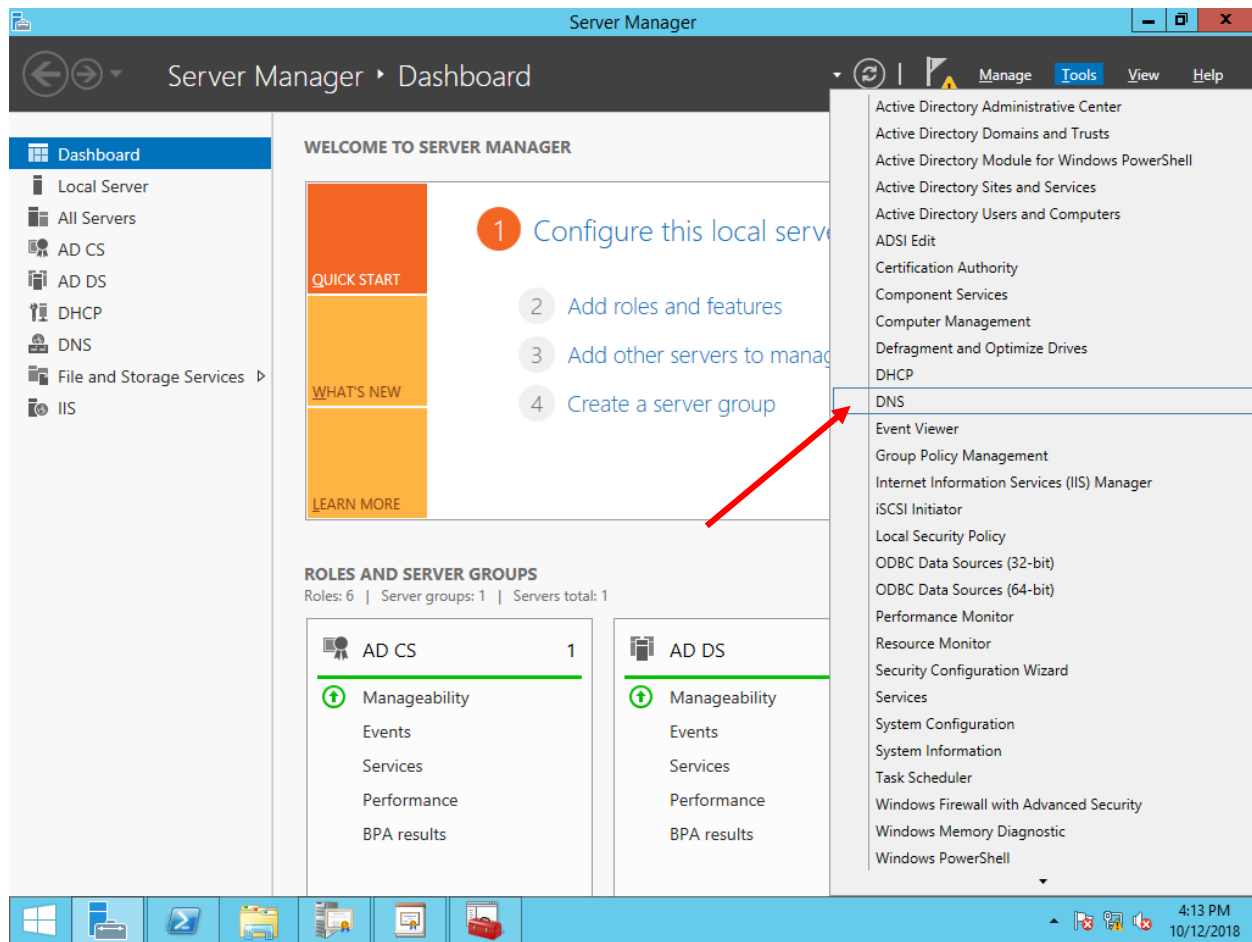
Actions

- Certificates
 - More Actions
- www.mangmayt...
 - More Actions

Personal store contains 3 certificates.

4:12 PM 10/12/2018

5. Cấu hình dịch vụ DNS và tạo bản ghi DNS: www.mangmytin.com trở về đ/c 192.168.1.100



DNS Manager

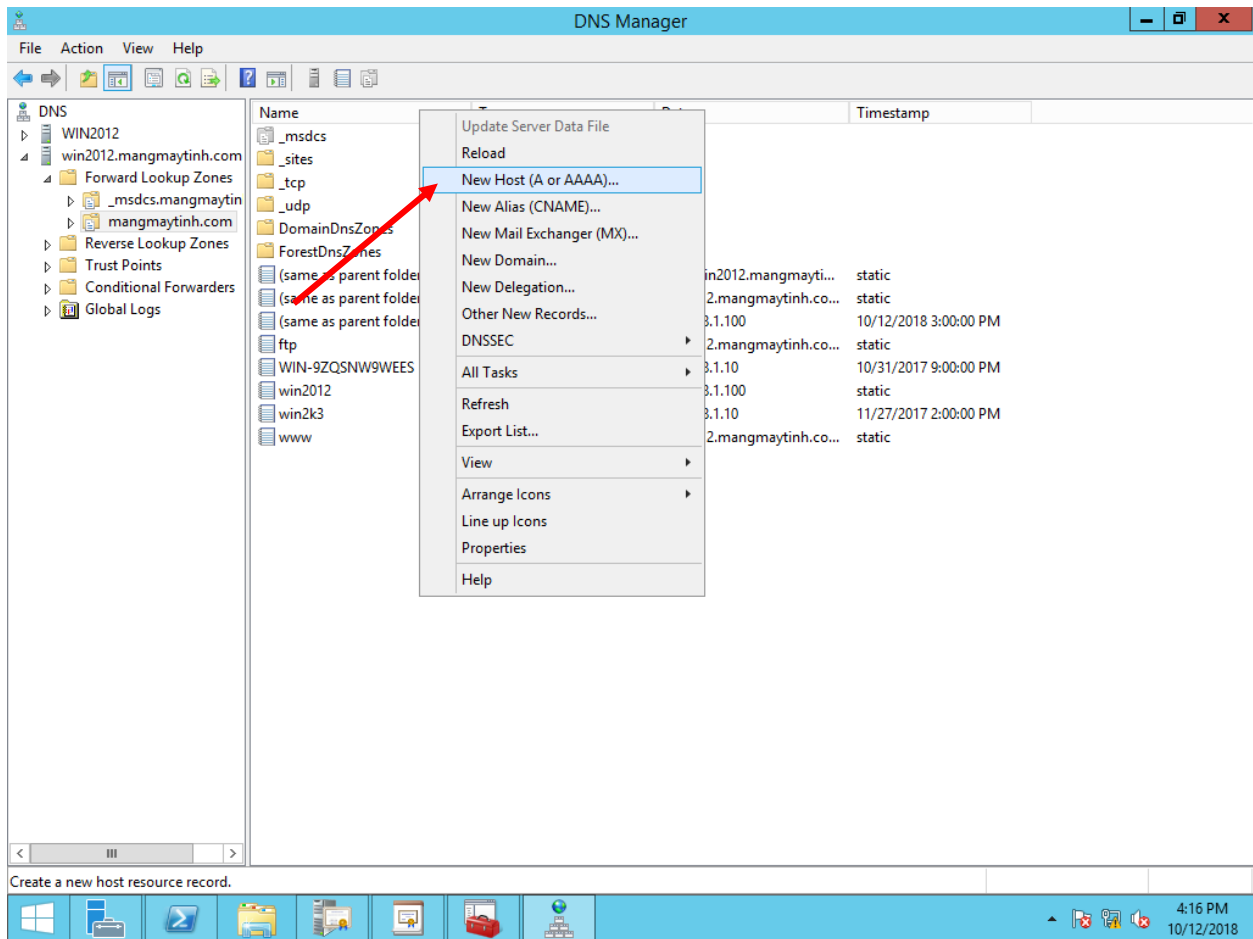
File Action View Help

DNS

- WIN2012
- win2012.mangmaytin.com
 - Forward Lookup Zones
 - _msdcs.mangmaytin
 - mangmaytin.com
 - Reverse Lookup Zones
 - Trust Points
 - Conditional Forwarders
 - Global Logs

Name	Type	Data	Timestamp
_msdcs			
_sites			
_tcp			
_udp			
DomainDnsZones			
ForestDnsZones			
(same as parent folder)	Start of Authority (SOA)	[81], win2012.mangmayti...	static
(same as parent folder)	Name Server (NS)	win2012.mangmaytin.co...	static
(same as parent folder)	Host (A)	192.168.1.100	10/12/2018 3:00:00 PM
ftp	Alias (CNAME)	win2012.mangmaytin.co...	static
WIN-9ZQSNW9WEES	Host (A)	192.168.1.10	10/31/2017 9:00:00 PM
win2012	Host (A)	192.168.1.100	static
win2k3	Host (A)	192.168.1.10	11/27/2017 2:00:00 PM
www	Alias (CNAME)	win2012.mangmaytin.co...	static

4:14 PM 10/12/2018

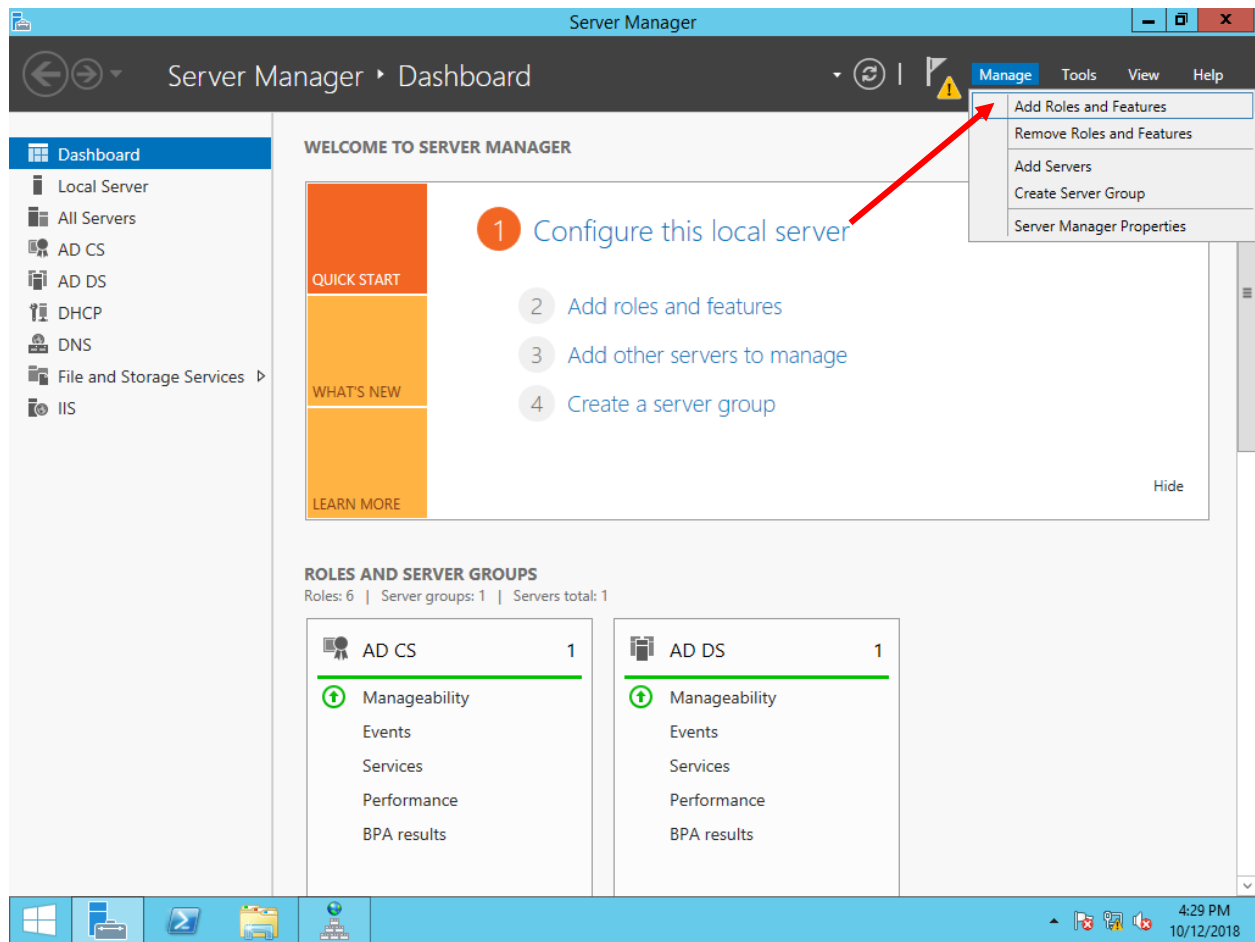


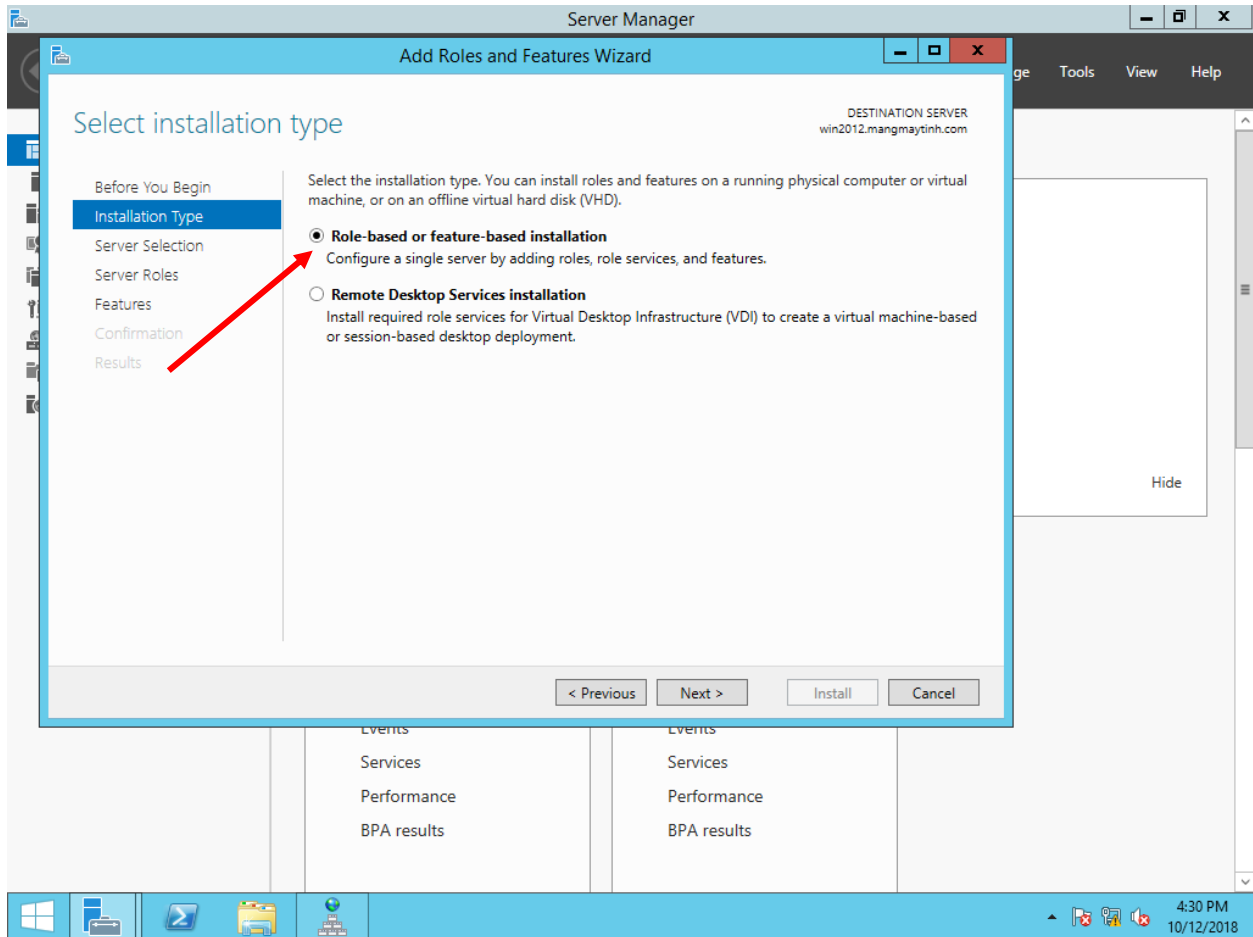
The 'New Host' dialog box is shown. It contains the following fields and options:

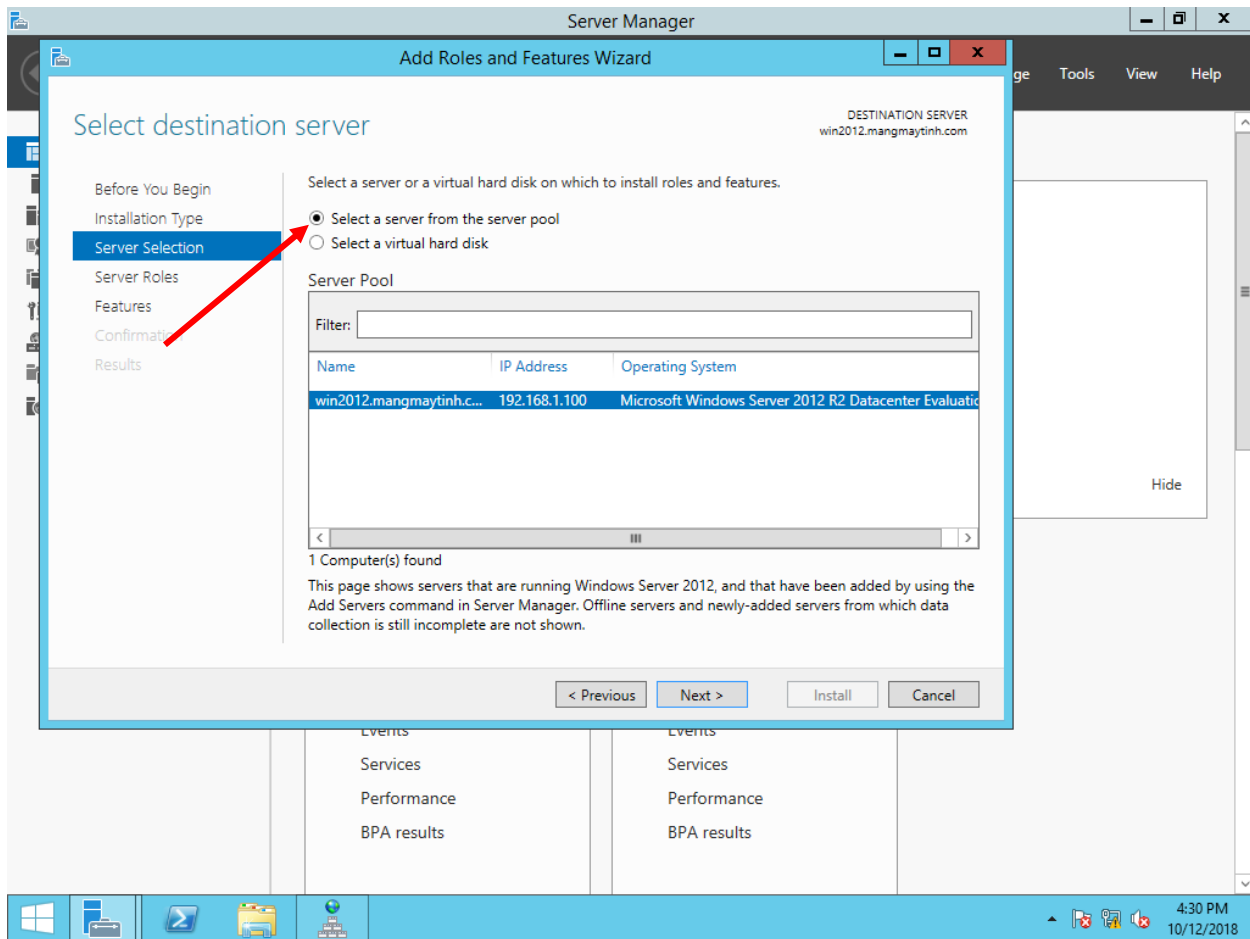
- Name (uses parent domain name if blank):**
- Fully qualified domain name (FQDN):**
- IP address:**
- ☐ Create associated pointer (PTR) record
- ☐ Allow any authenticated user to update DNS records with the same owner name

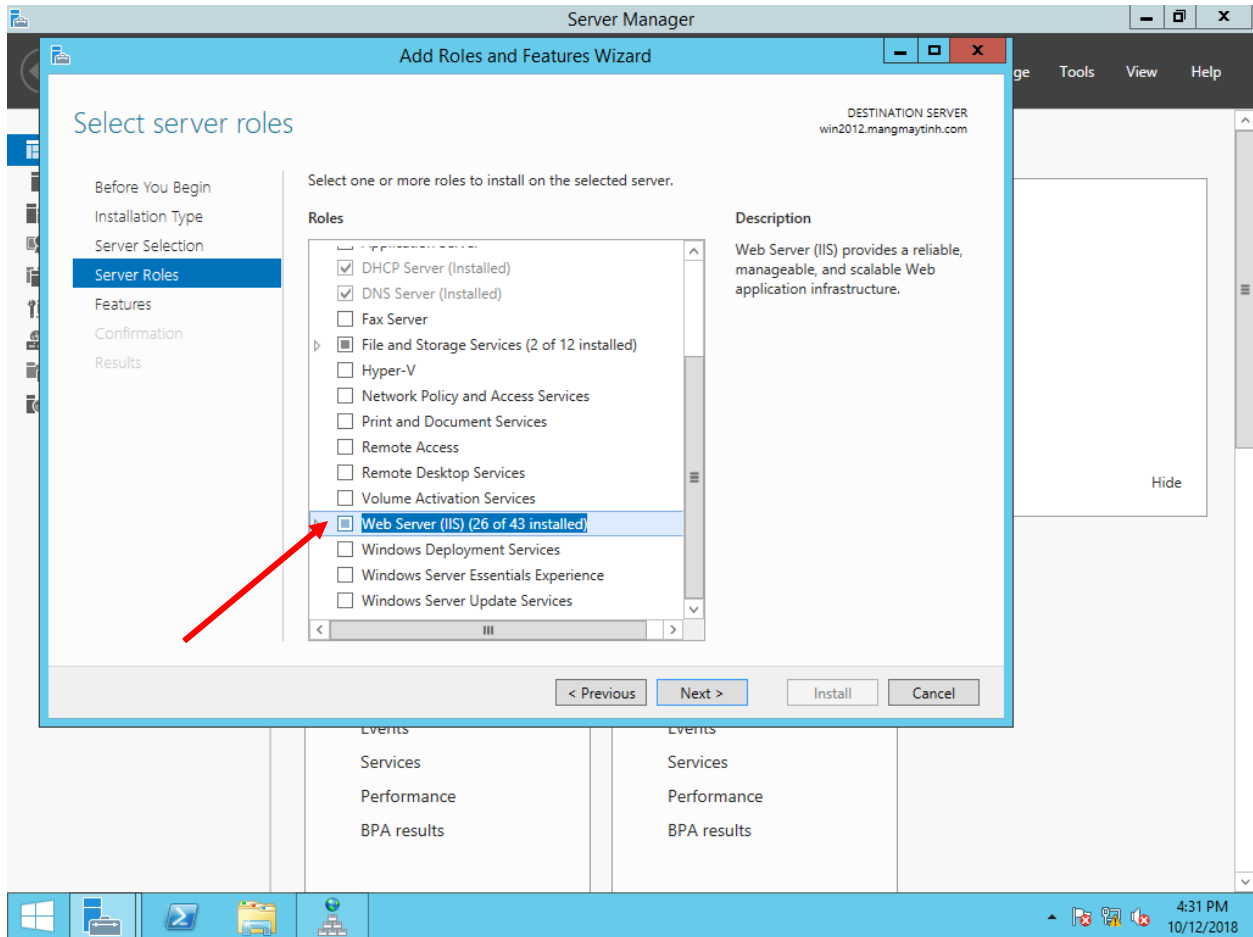
Buttons: Add Host, Cancel

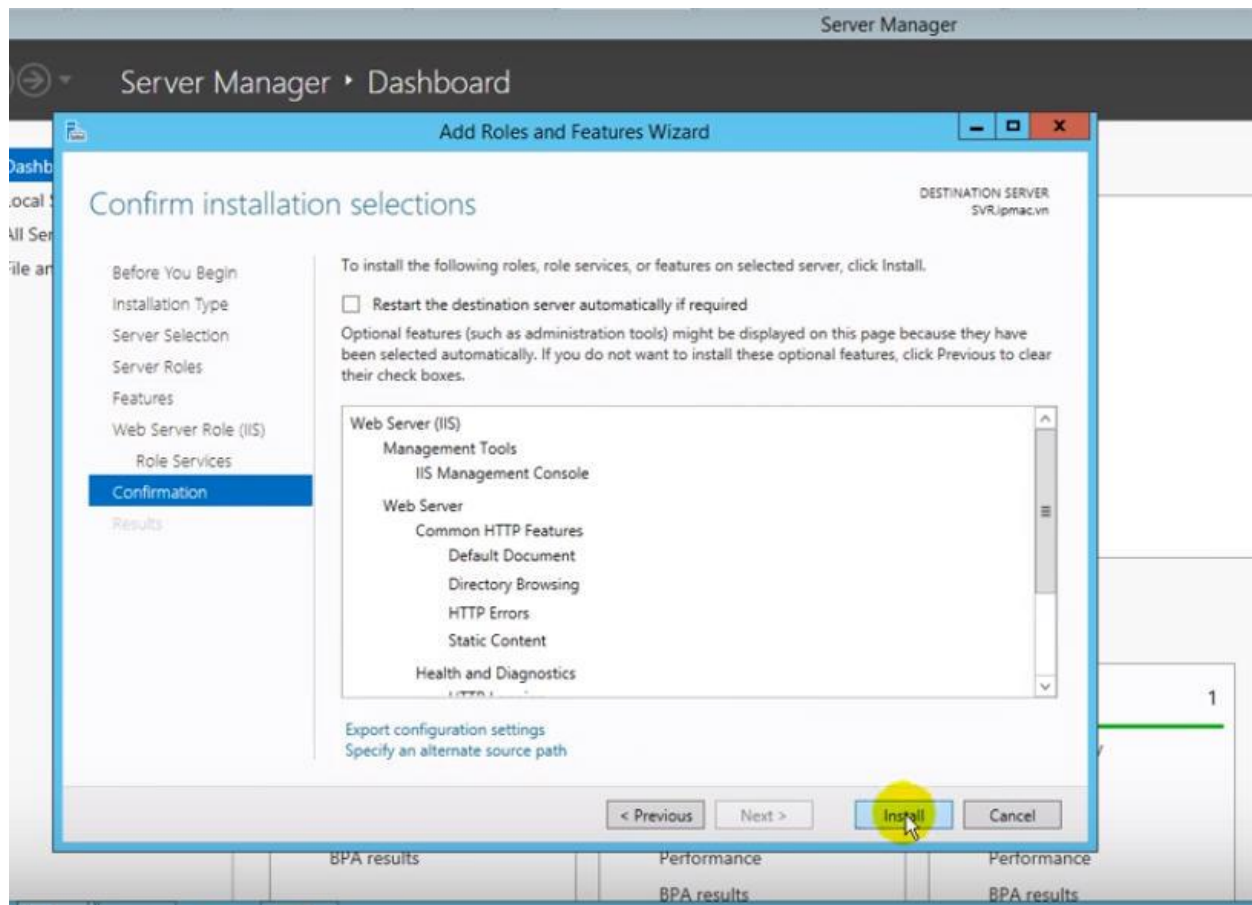
6. Cài đặt và cấu hình dịch vụ Internet Information Services (IIS) chạy SSL với certificate request:











Server Manager

Server Manager ▸ Dashboard

Manage Tools View Help

Dashboard

Local Server

All Servers

AD CS

AD DS

DHCP

DNS

File and Storage Services ▸

IIS

WELCOME TO SERVER MANAGER

QUICK START

WHAT'S NEW

LEARN MORE

1

Configure this local server

2

Add roles and features

3

Add other servers to manage

4

Create a server group

ROLES AND SERVER GROUPS

Roles: 6 | Server groups: 1 | Servers total: 1

AD CS1

Manageability

Events

Services

Performance

BPA results

AD DS

Manageability

Events

Services

Performance

BPA results

Active Directory Administrative Center

Active Directory Domains and Trusts

Active Directory Module for Windows PowerShell

Active Directory Sites and Services

Active Directory Users and Computers

ADSI Edit

Certification Authority

Component Services

Computer Management

Defragment and Optimize Drives

DHCP

DNS

Event Viewer

Group Policy Management

Internet Information Services (IIS) Manager

iSCSI Initiator

Local Security Policy

ODBC Data Sources (32-bit)

ODBC Data Sources (64-bit)

Performance Monitor

Resource Monitor

Security Configuration Wizard

Services

System Configuration

System Information

Task Scheduler

Windows Firewall with Advanced Security

Windows Memory Diagnostic

Windows PowerShell

4:35 PM

10/12/2018

