


<p><u>Procédure Configuration WIFI + RADIUS</u></p>  <p>Procédure configuration Wifi & Radius</p>	<p>HUYNH Michael SAKO Bah FRANCAIS Benjamin</p> <p>2B-SISR</p>
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ASSURMER

Version	Auteur	Date	Nombre de pages	À l'attention	Mode de diffusion	Valideur
1.0	FRANCAIS Benjamin ; SAKO BAH ; HUYNH Michael	31/01/2025	29	Assurmer-IT	.pdf	FRANÇAIS Benjamin

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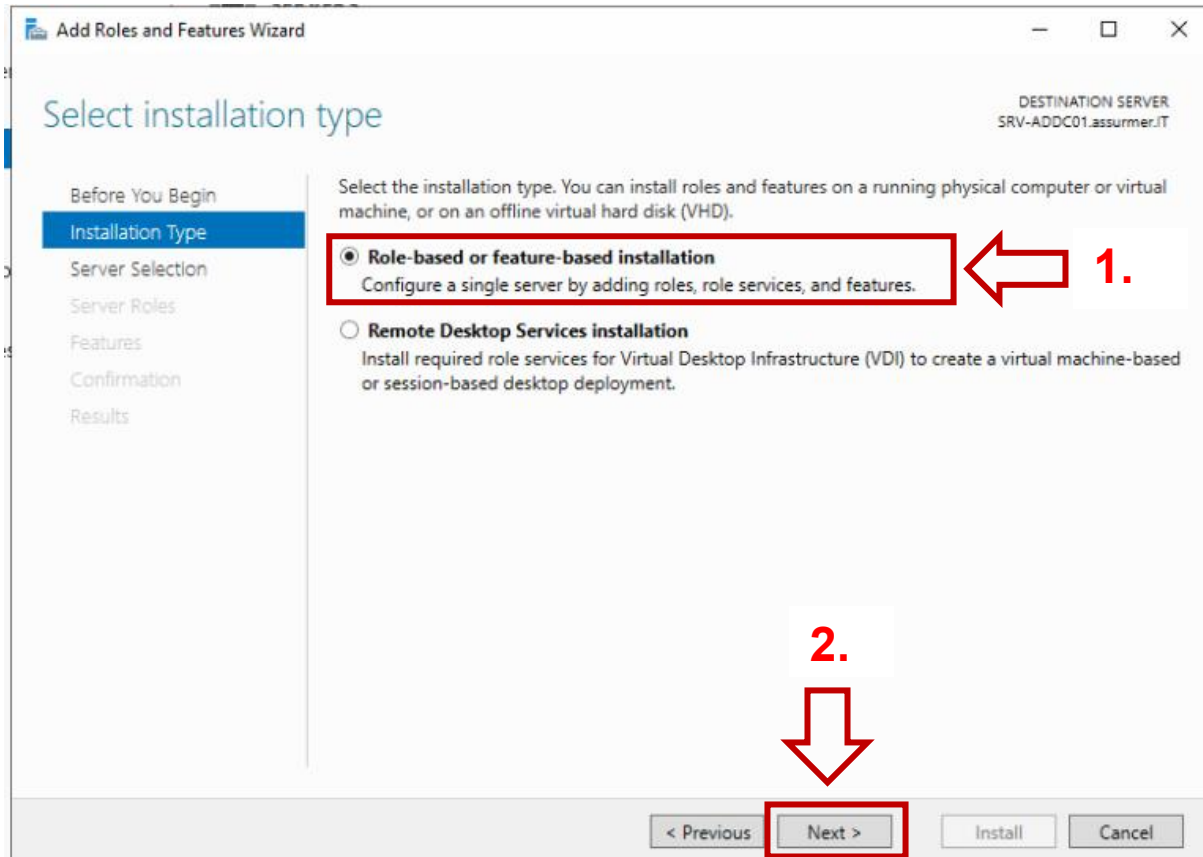
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Prérequis :

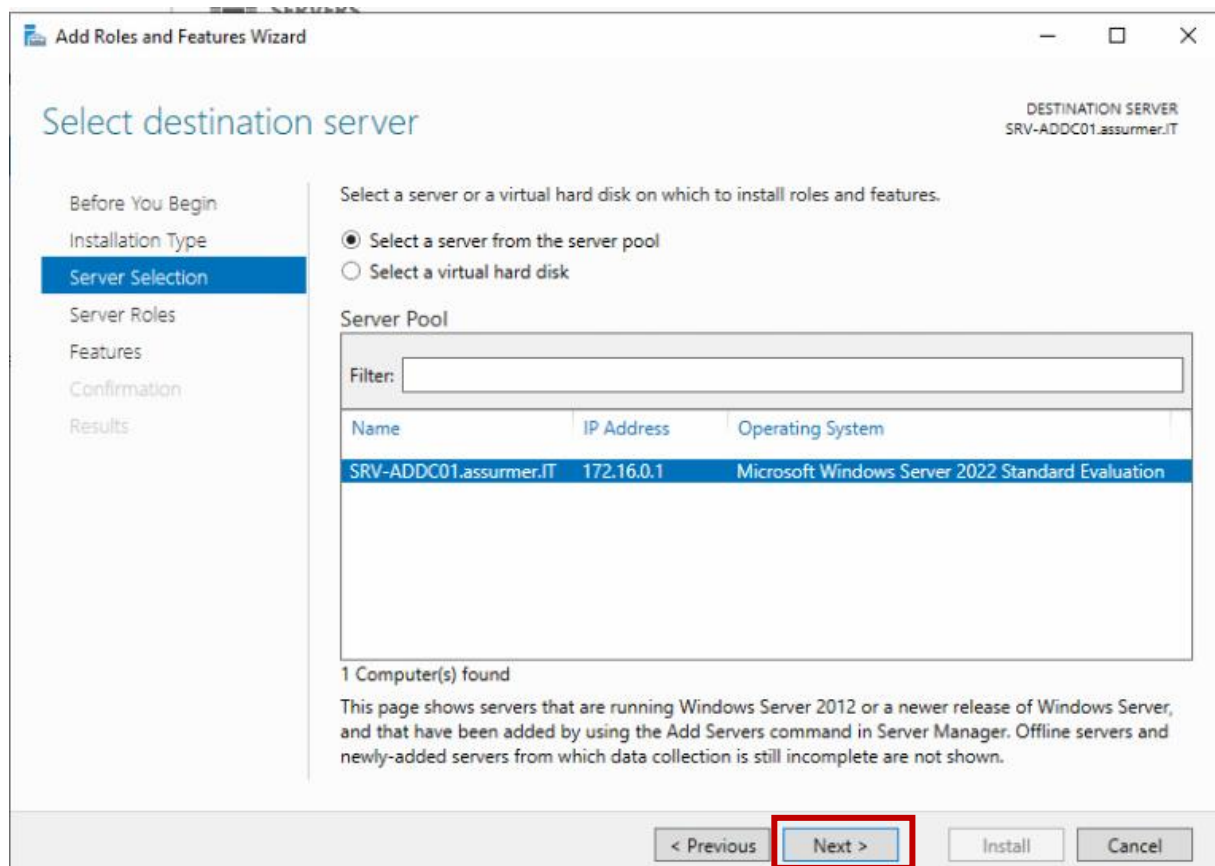
- 1 serveur AD; 1 Borne Wifi
- Compte Administrateur

Installation « Network Policy Server » :

- Cliquer sur « Add Roles and Features Wizard » dans le « Server Manager » puis sélectionner « Role-based or feature-based installation »

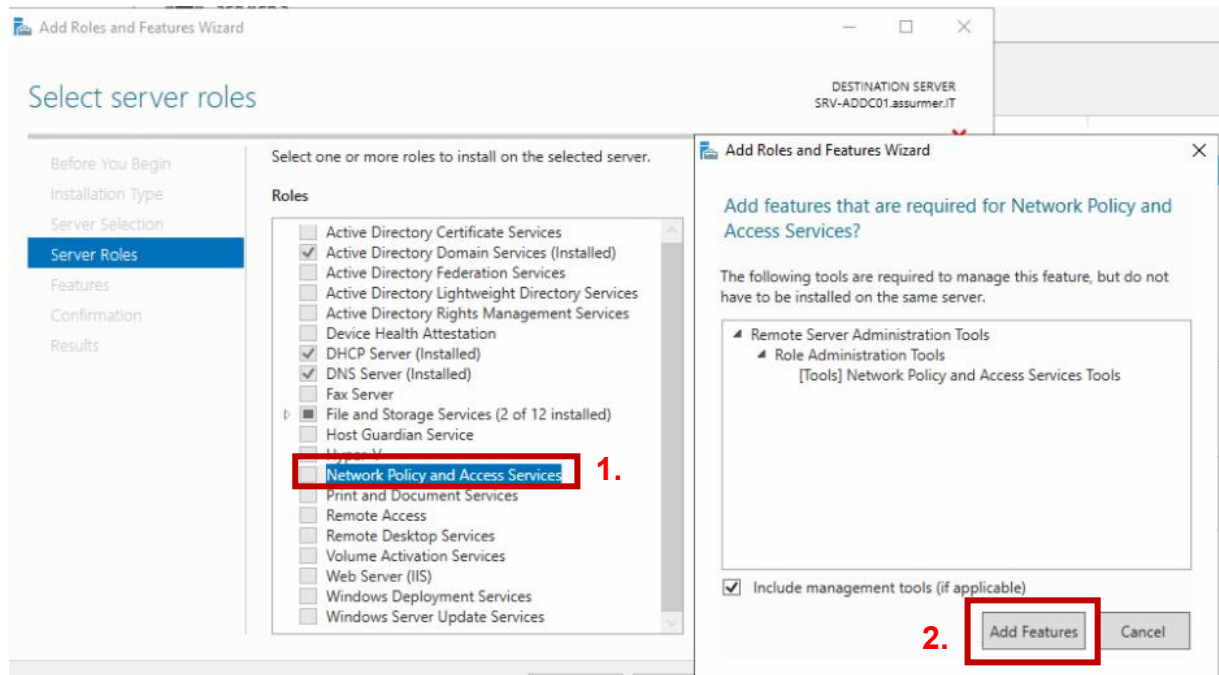


- Sélectionner le serveur concerné

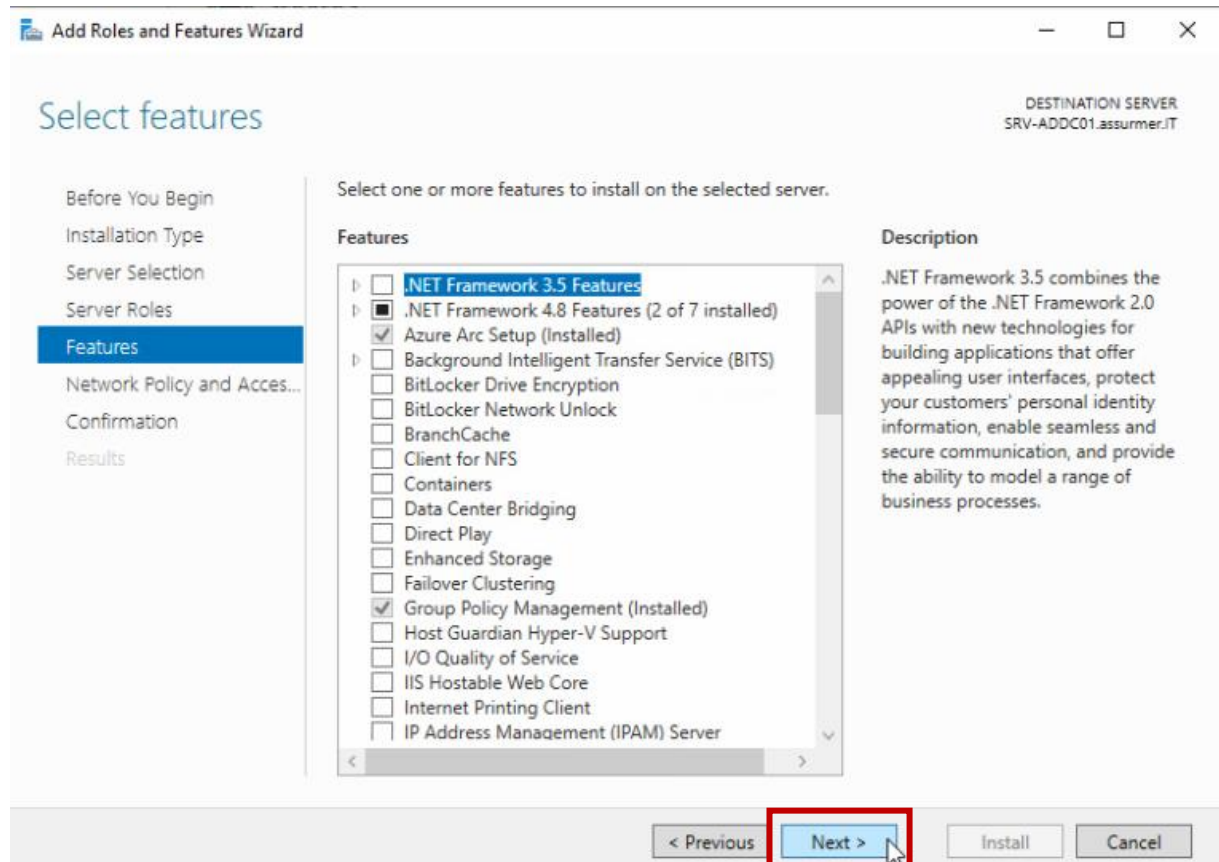


[Procédure] Configuration WiFi & RADIUS

- Sélectionner « Network Policy and Access Services »

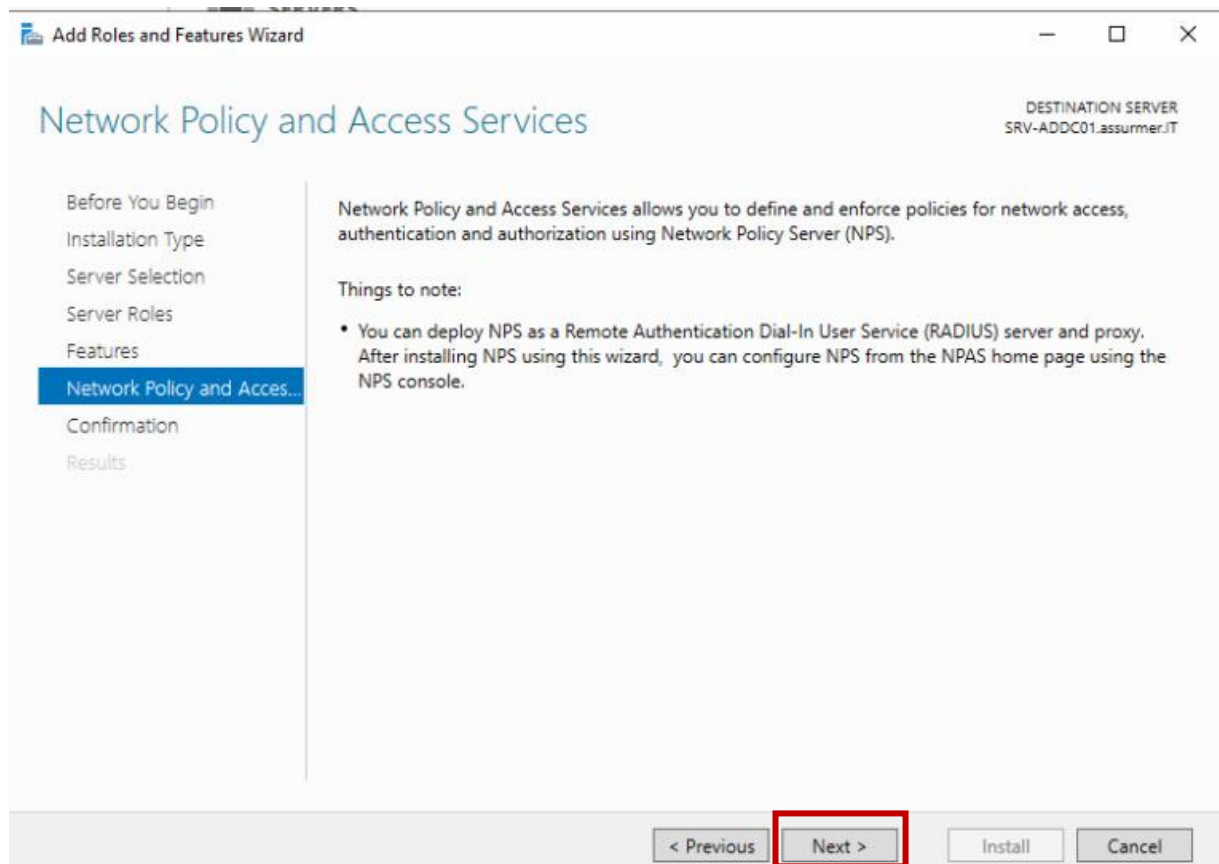


- Cliquer sur « Next »

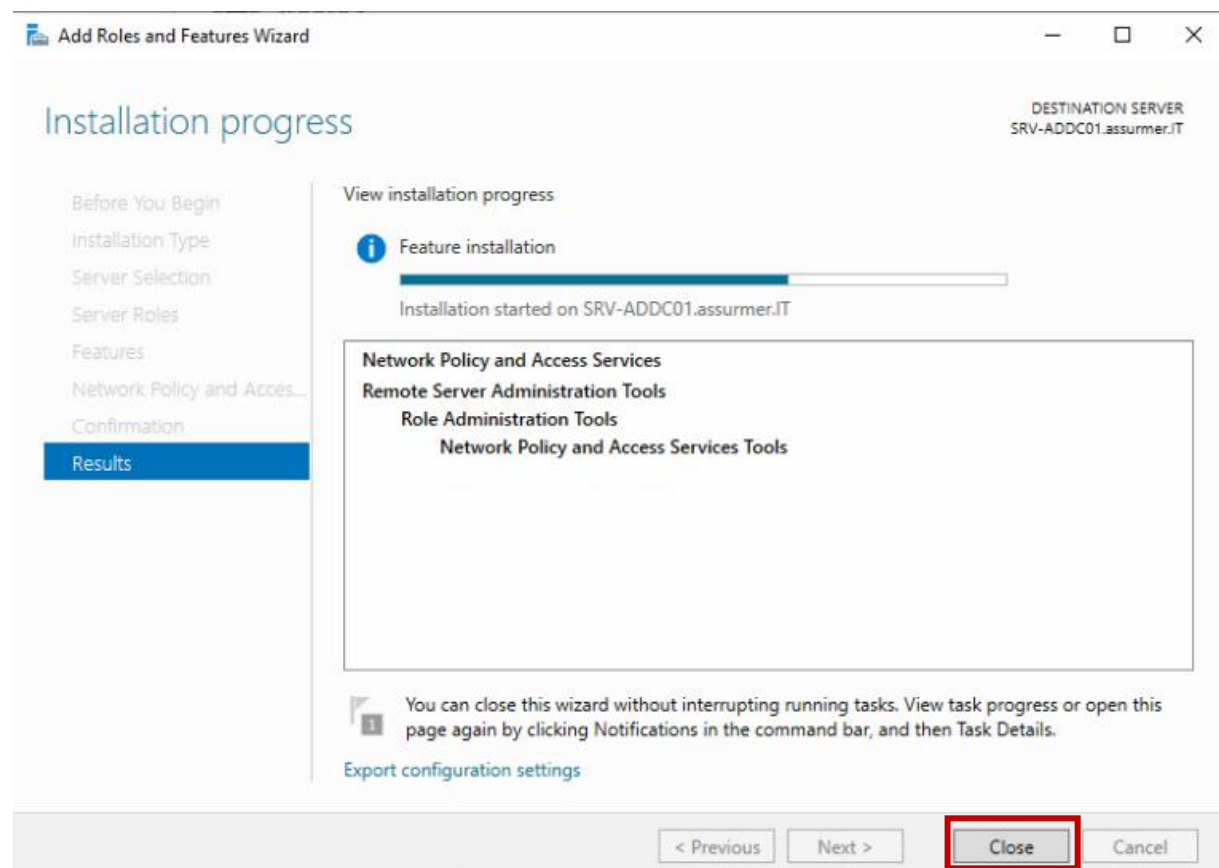


[Procédure] Configuration WiFi & RADIUS

- Cliquer sur « Next »

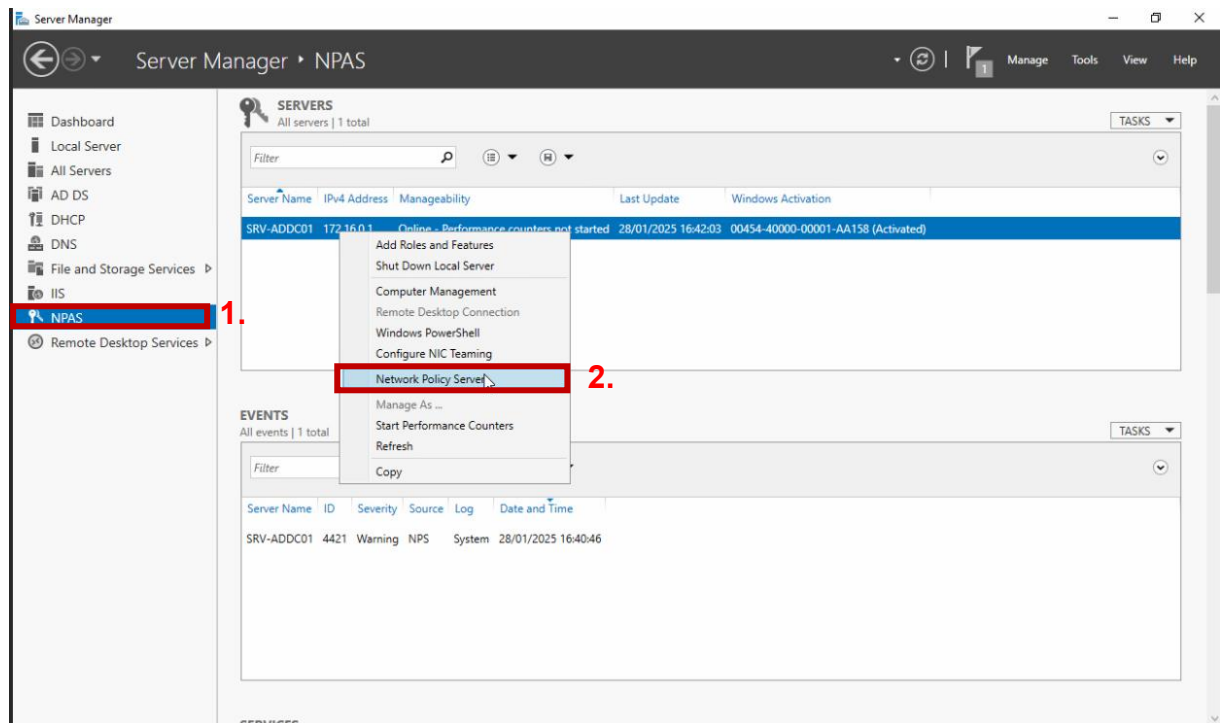


- Cliquer sur « Close »

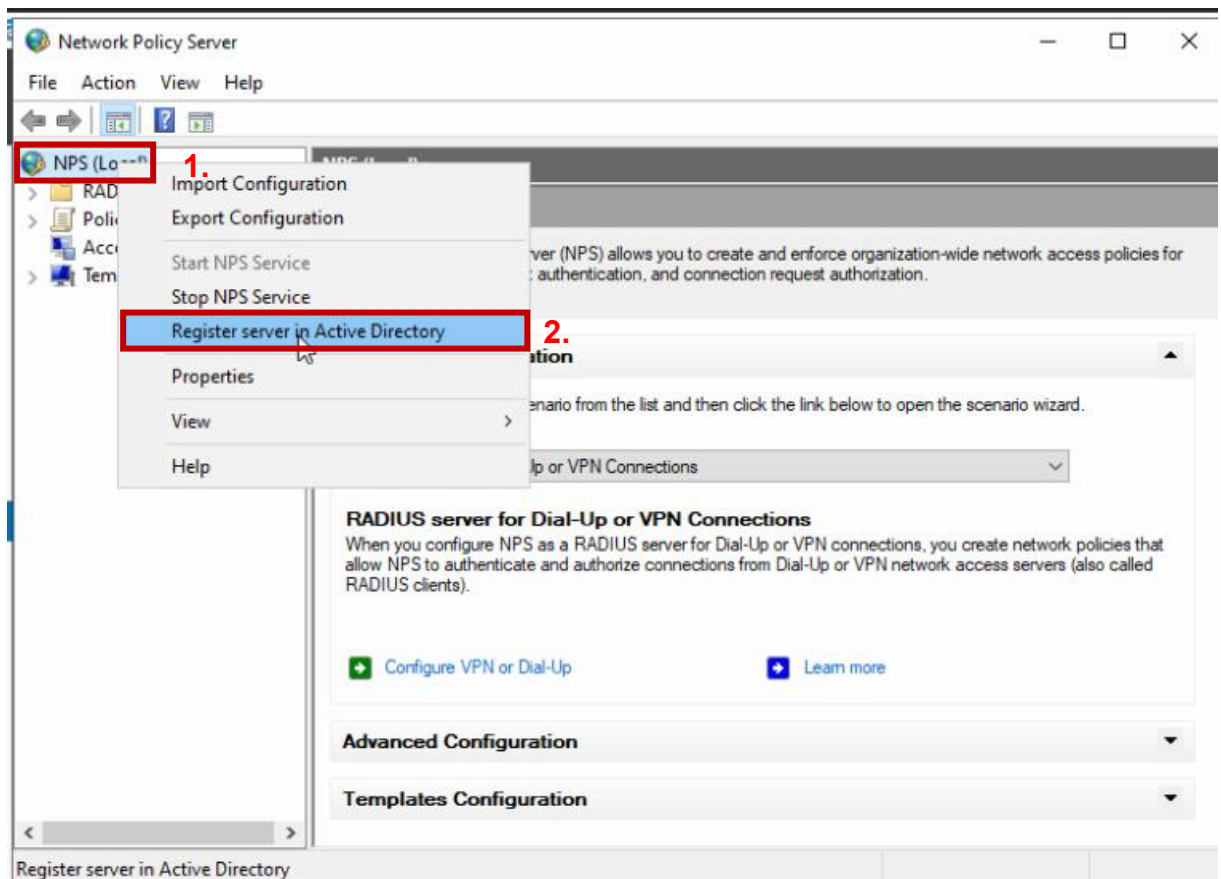


Liaison NPS et AD :

- Sur le « Server Manager », aller dans « NPAS » et faire un clic-droit sur le serveur. Puis sélectionner « Network Policy Server »

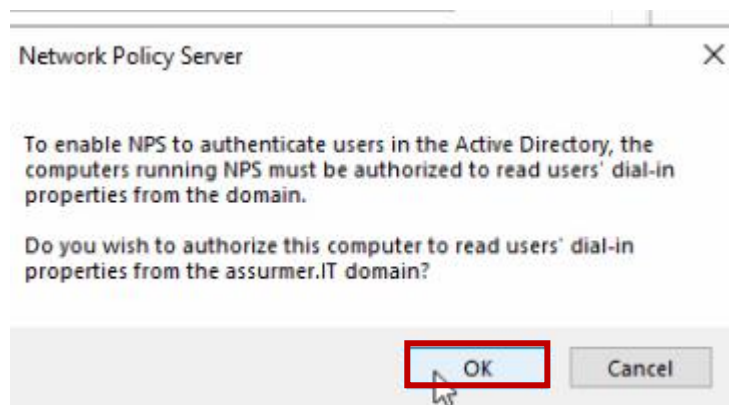


- Faire un clic droit sur « NPS » et sélectionner « Register server in Active Directory »



[Procédure] Configuration WiFi & RADIUS

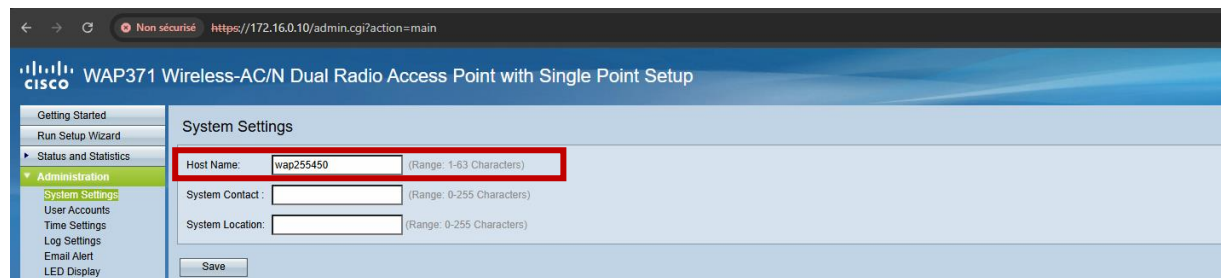
- Cliquer sur « OK »



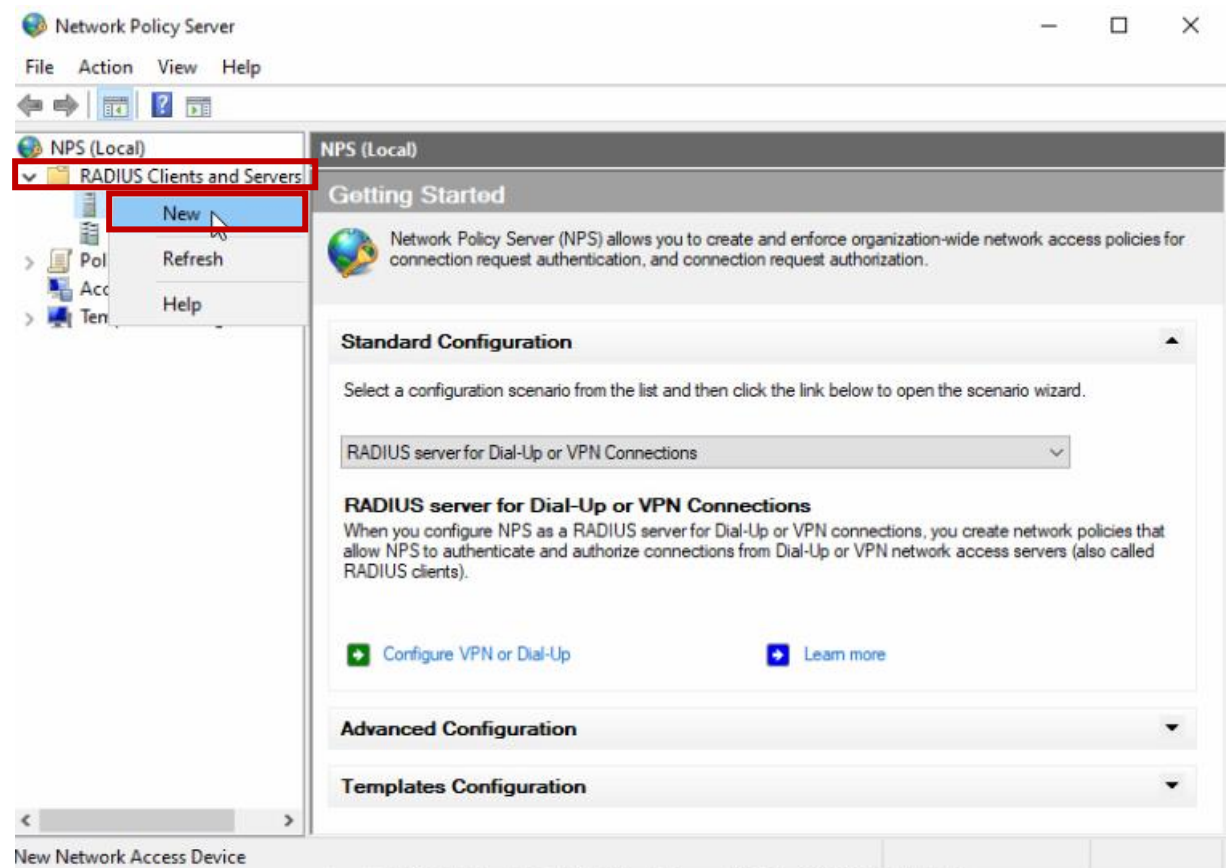
Configuration RADIUS :

Liaison Borne WiFi et AD :

- Récupérer le « Host name » de la borne sur l'interface en ligne de la borne :



- Retourner sur NPS et clic-droit sur « RADIUS CLIENTS » et « New »



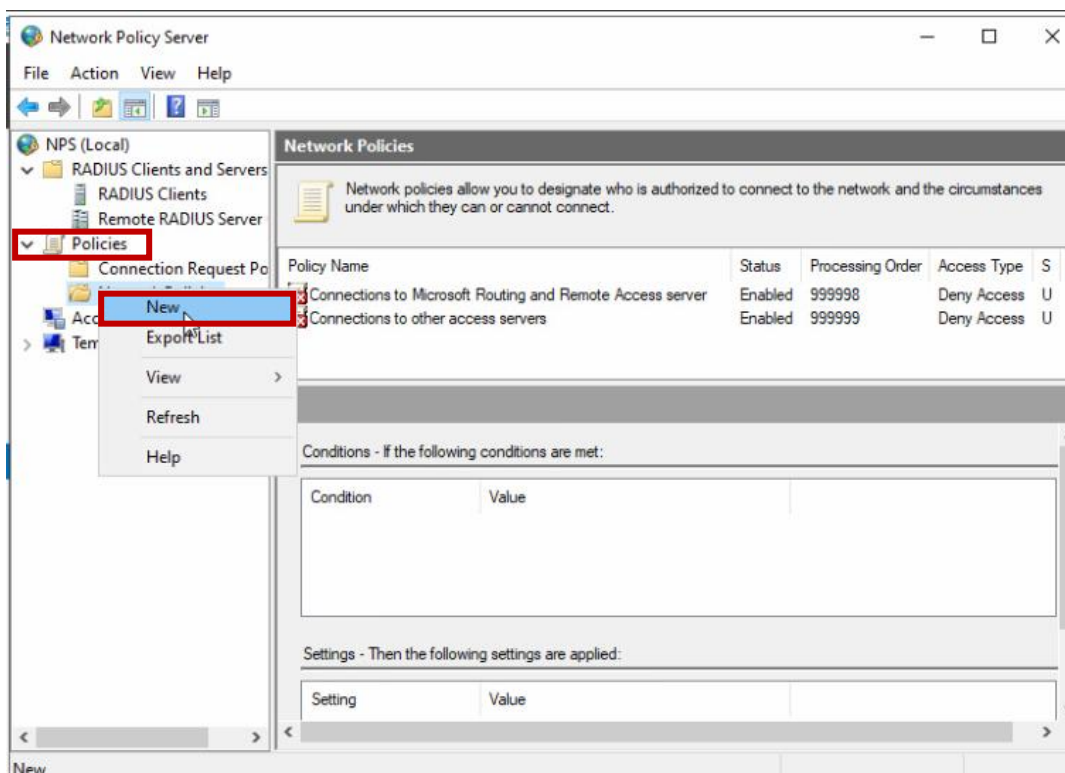
-

[Procédure] Configuration WiFi & RADIUS

- Rentrer les informations relatives à la borne Wifi

The 'New RADIUS Client' dialog box is shown with the 'Settings' tab selected. The 'Enable this RADIUS client' checkbox is checked. Under 'Name and Address', the 'Friendly name' is 'wap255450' and the 'Address (IP or DNS)' is '172.16.0.10'. Under 'Shared Secret', the 'Manual' radio button is selected, and the 'Shared secret' and 'Confirm shared secret' fields are empty. The 'OK' button is highlighted.

- Développer Politiques puis clic-droit sur « Network Policies » et « New »



[Procédure] Configuration WiFi & RADIUS

- Nommer la politique en « SSID »

New Network Policy

Specify Network Policy Name and Connection Type

You can specify a name for your network policy and the type of connections to which the policy is applied.

Policy name:
SSID

Network connection method

Select the type of network access server that sends the connection request to NPS. You can select either the network access server type or Vendor specific, but neither is required. If your network access server is an 802.1X authenticating switch or wireless access point, select Unspecified.

☒ Type of network access server:
Unspecified

☐ Vendor specific:
10

Previous Next Finish Cancel

- Cliquer sur « Add »

New Network Policy

Specify Conditions

Specify the conditions that determine whether this network policy is evaluated for a connection request. A minimum of one condition is required.

Conditions:

Condition	Value
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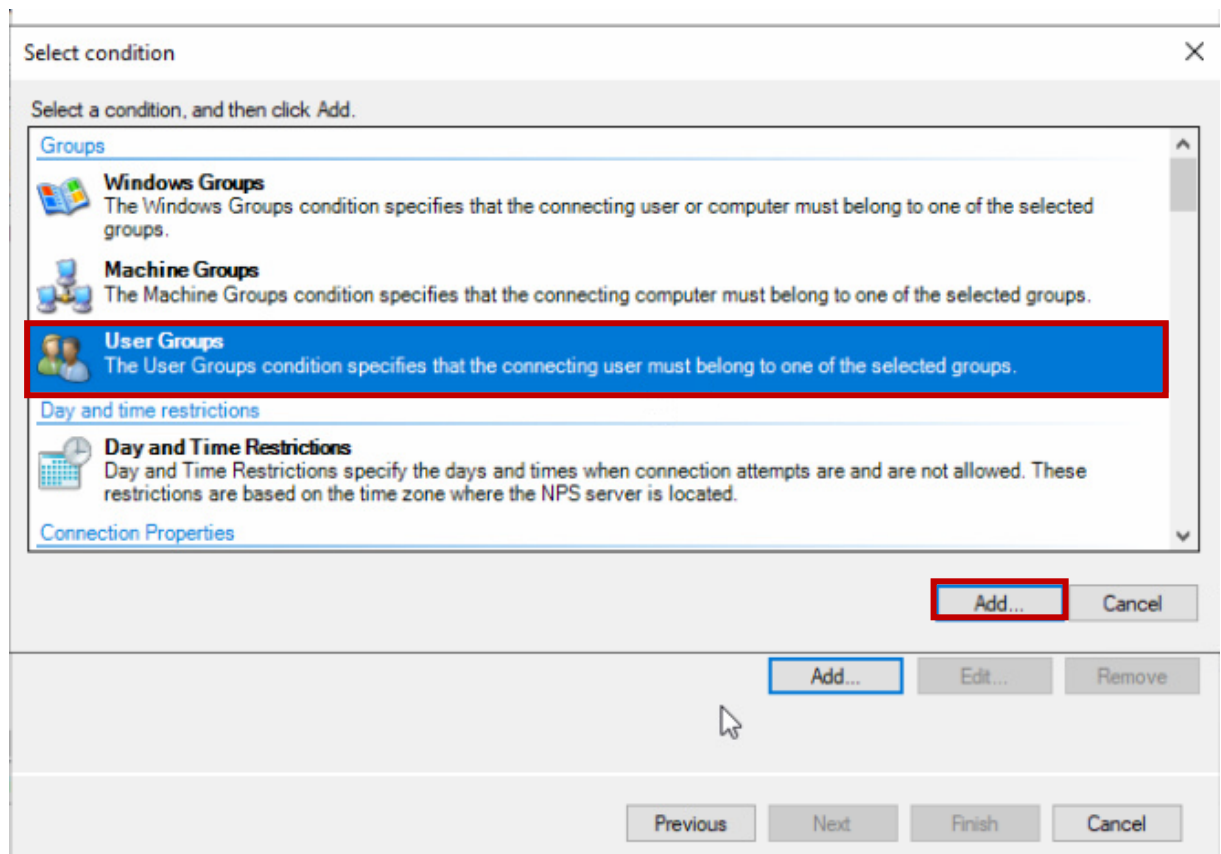
Condition description:

Add Edit... Remove

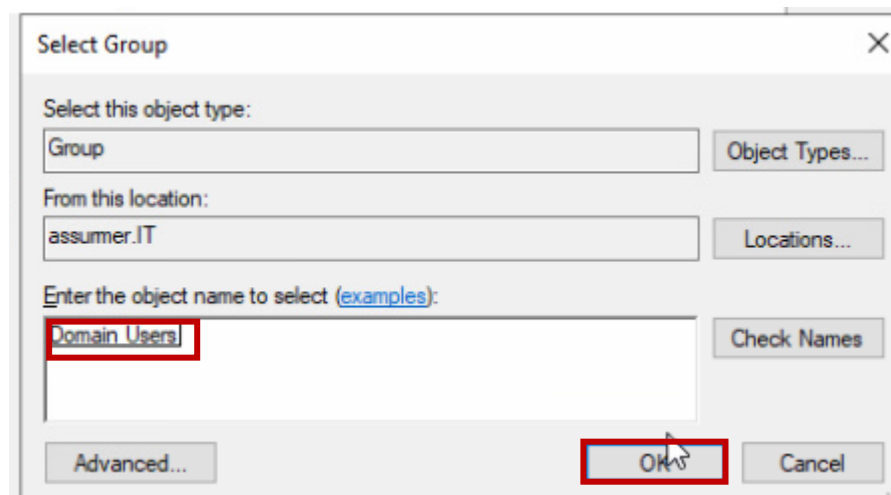
Previous Next Finish Cancel

[Procédure] Configuration WiFi & RADIUS

- Choisir « User Groups »

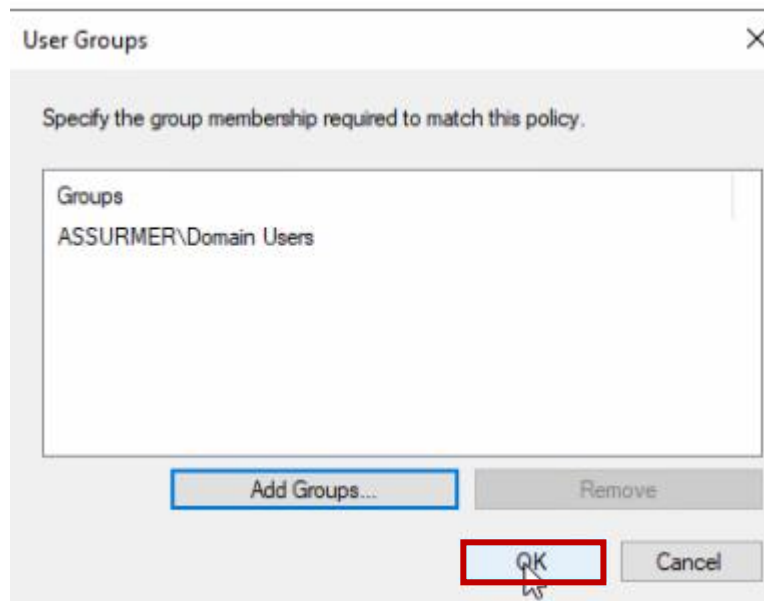


- On rajoute le groupe de sécurité « Domain User »

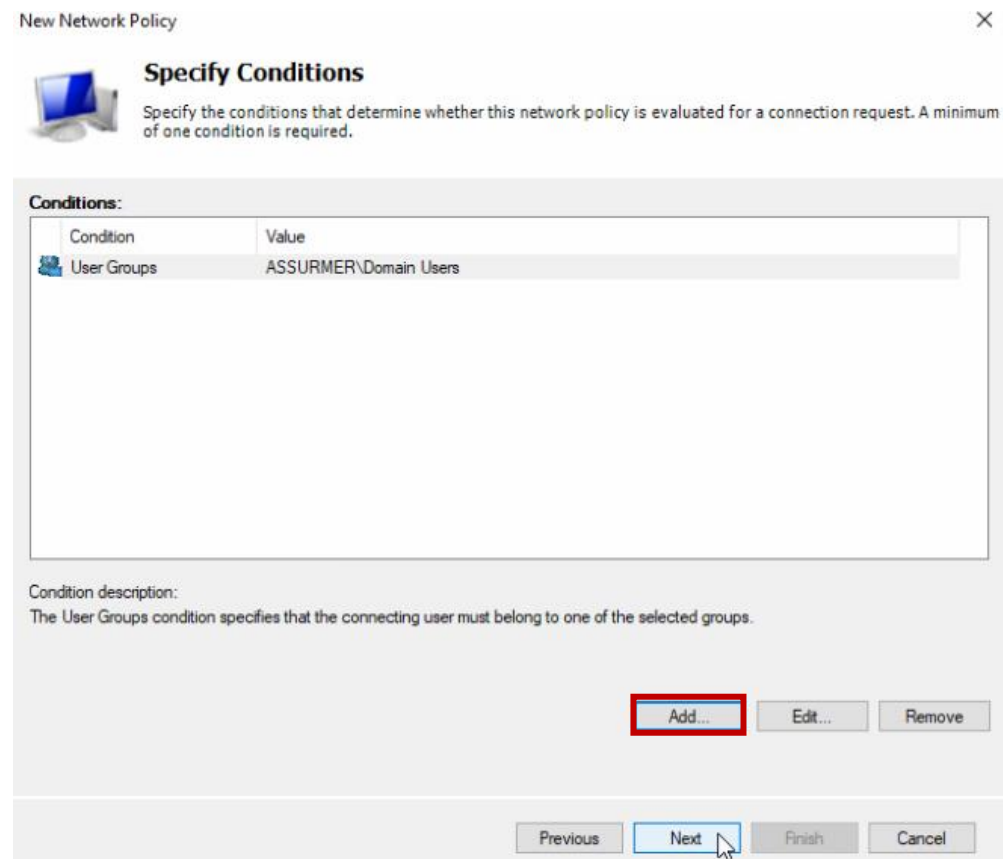


[Procédure] Configuration WiFi & RADIUS

- Cliquer sur « OK »

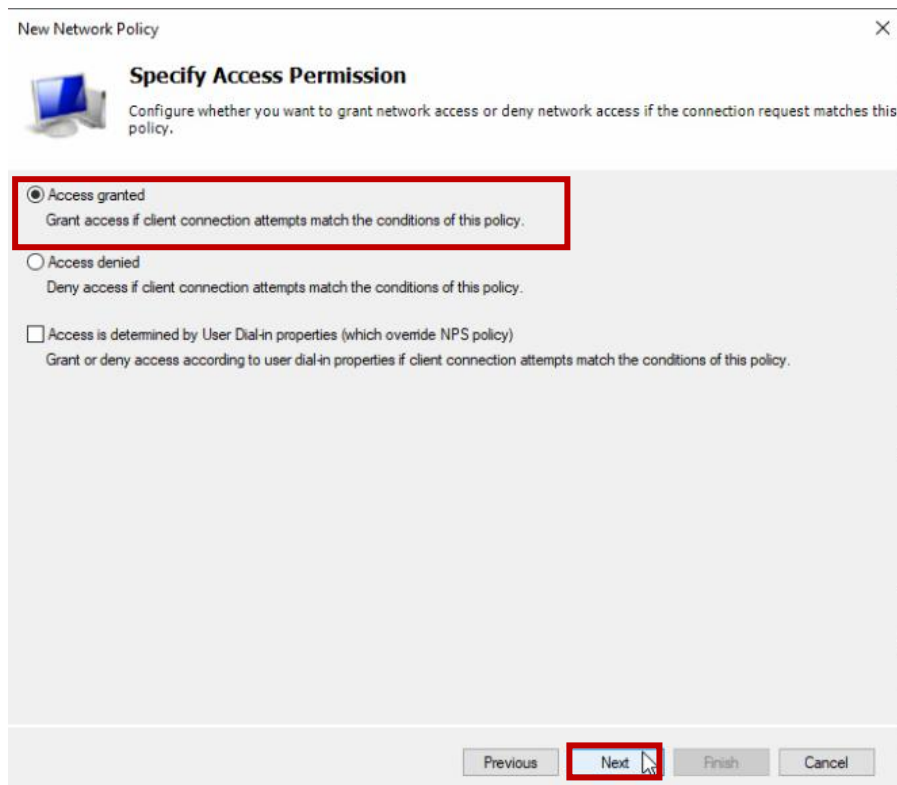


- Cliquer sur « Next »



[Procédure] Configuration WiFi & RADIUS

- Sélectionner « Access granted » puis « Next »



New Network Policy

Specify Access Permission

Configure whether you want to grant network access or deny network access if the connection request matches this policy.

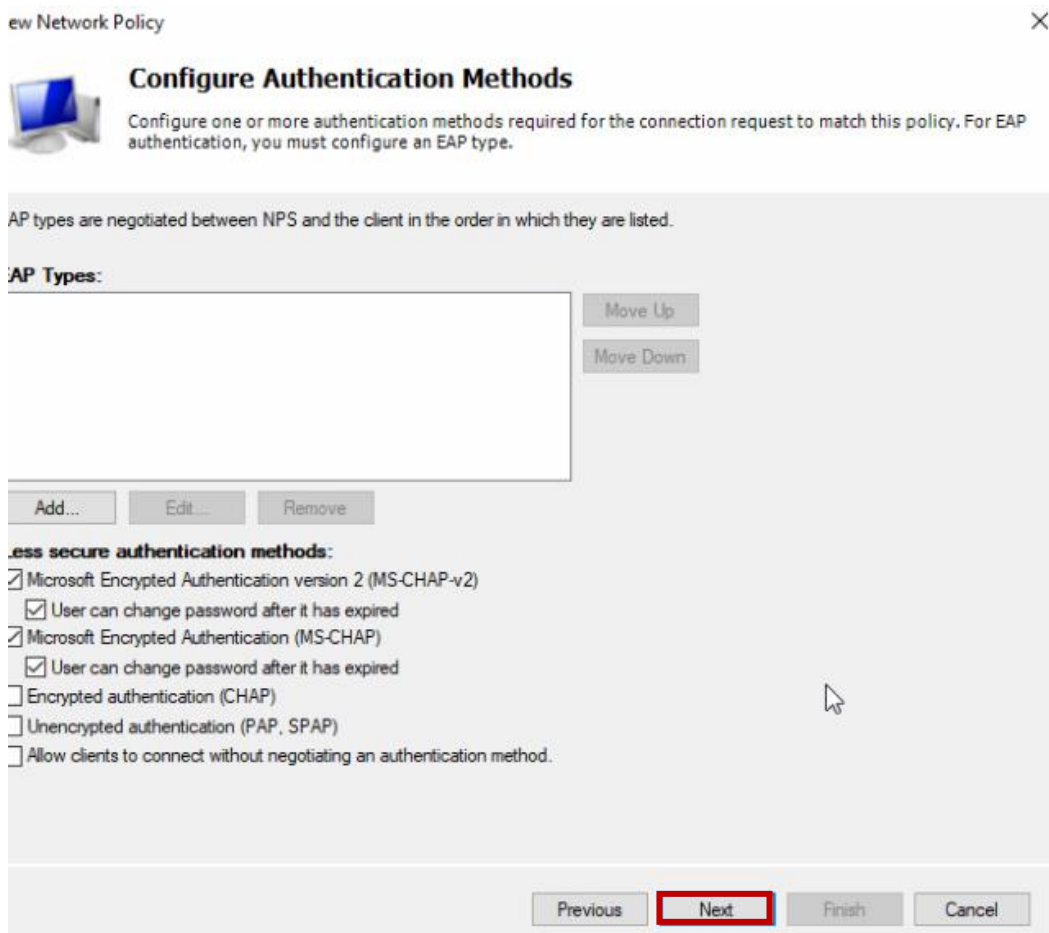
☒ Access granted
Grant access if client connection attempts match the conditions of this policy.

☐ Access denied
Deny access if client connection attempts match the conditions of this policy.

☐ Access is determined by User Dial-in properties (which override NPS policy)
Grant or deny access according to user dial-in properties if client connection attempts match the conditions of this policy.

Previous Next Finish Cancel

- Cliquer « Next »



New Network Policy

Configure Authentication Methods

Configure one or more authentication methods required for the connection request to match this policy. For EAP authentication, you must configure an EAP type.

AP types are negotiated between NPS and the client in the order in which they are listed.

AP Types:

Move Up
Move Down

Add... Edit... Remove

Less secure authentication methods:

☒ Microsoft Encrypted Authentication version 2 (MS-CHAP-v2)
☒ User can change password after it has expired

☒ Microsoft Encrypted Authentication (MS-CHAP)
☒ User can change password after it has expired

☐ Encrypted authentication (CHAP)

☐ Unencrypted authentication (PAP, SPAP)


☐ Allow clients to connect without negotiating an authentication method.

Previous Next Finish Cancel

[Procédure] Configuration WiFi & RADIUS

- Cliquer « Finish »

New Network Policy ×

 **Completing New Network Policy**

You have successfully created the following network policy:

SSID

Policy conditions:

Condition	Value
User Groups	ASSURMER\Domain Users

Policy settings:

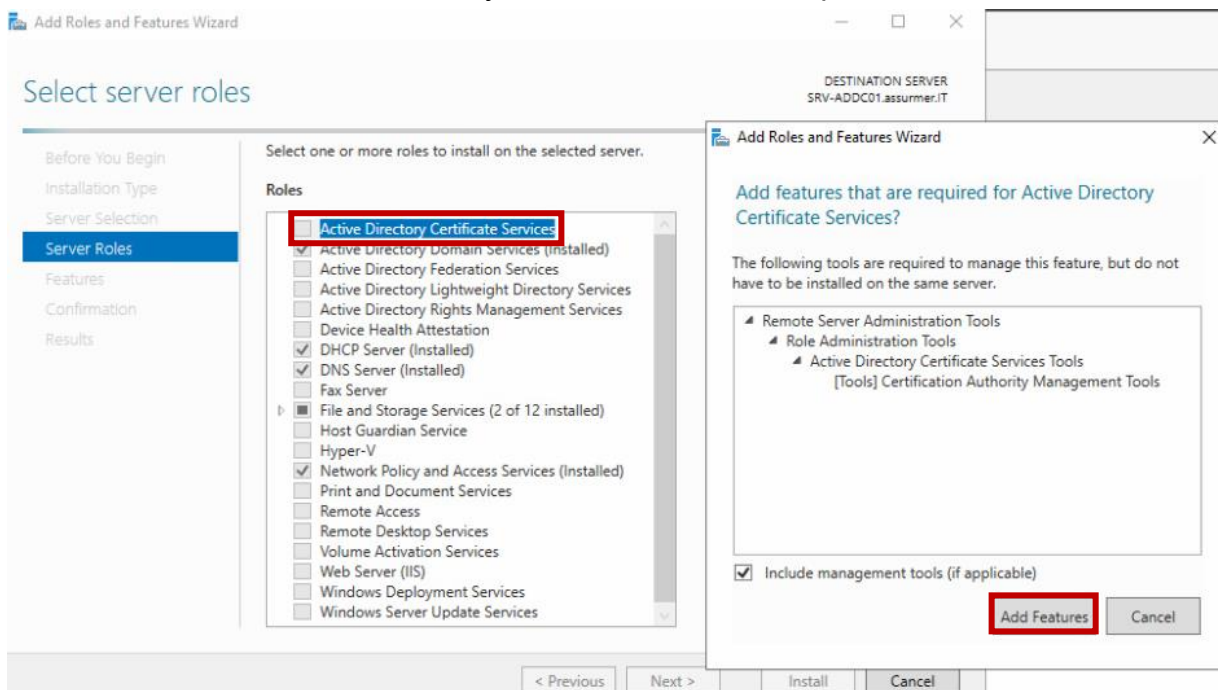
Condition	Value
Authentication Method	MS-CHAP v1 OR MS-CHAP v1 (User can change password after it has expired) OR MS-CHAP v2 ...
Access Permission	Grant Access
Framed-Protocol	PPP
Service-Type	Framed
Ignore User Dial-In Properties	False

To close this wizard, click Finish.

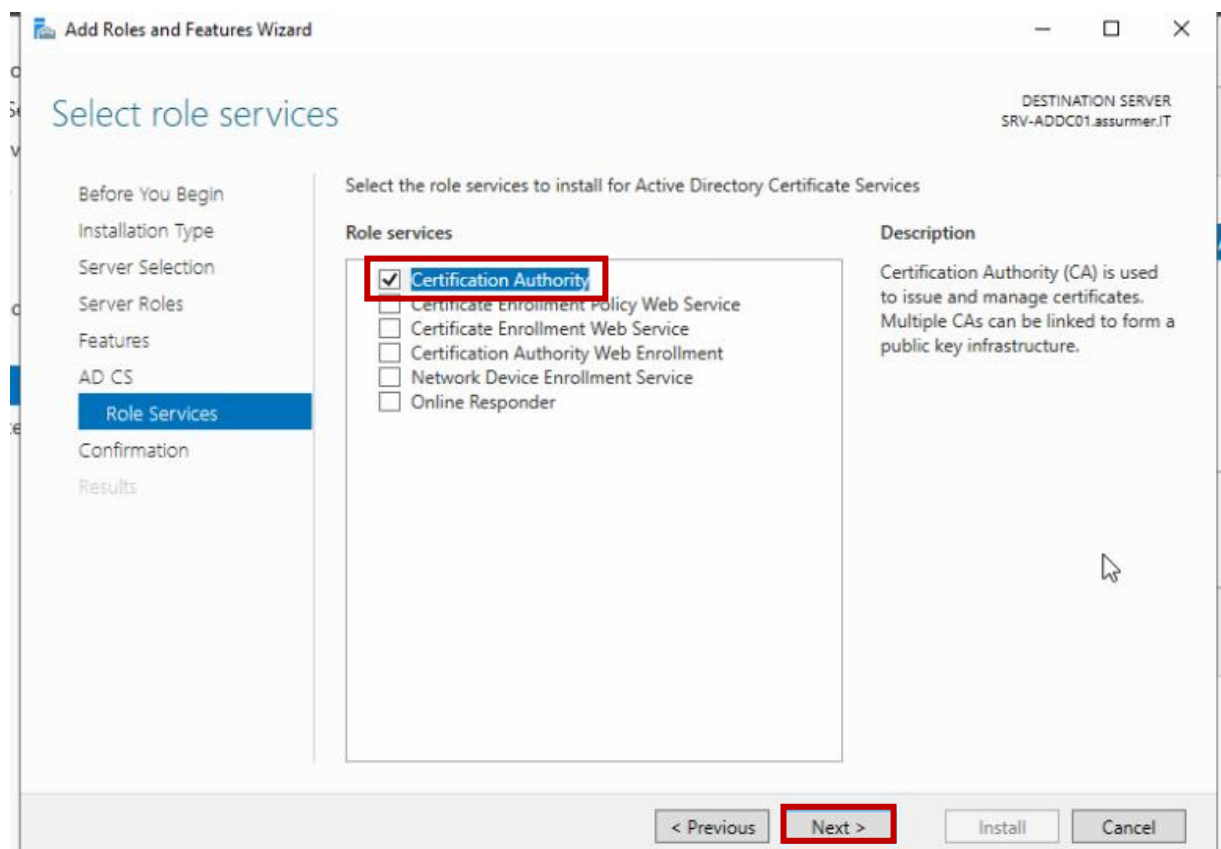
Previous Next **Finish** Cancel

Configuration « AD Certificate Services »

- Sélectionner « Active Directory Certificate Services » puis « Add Features »

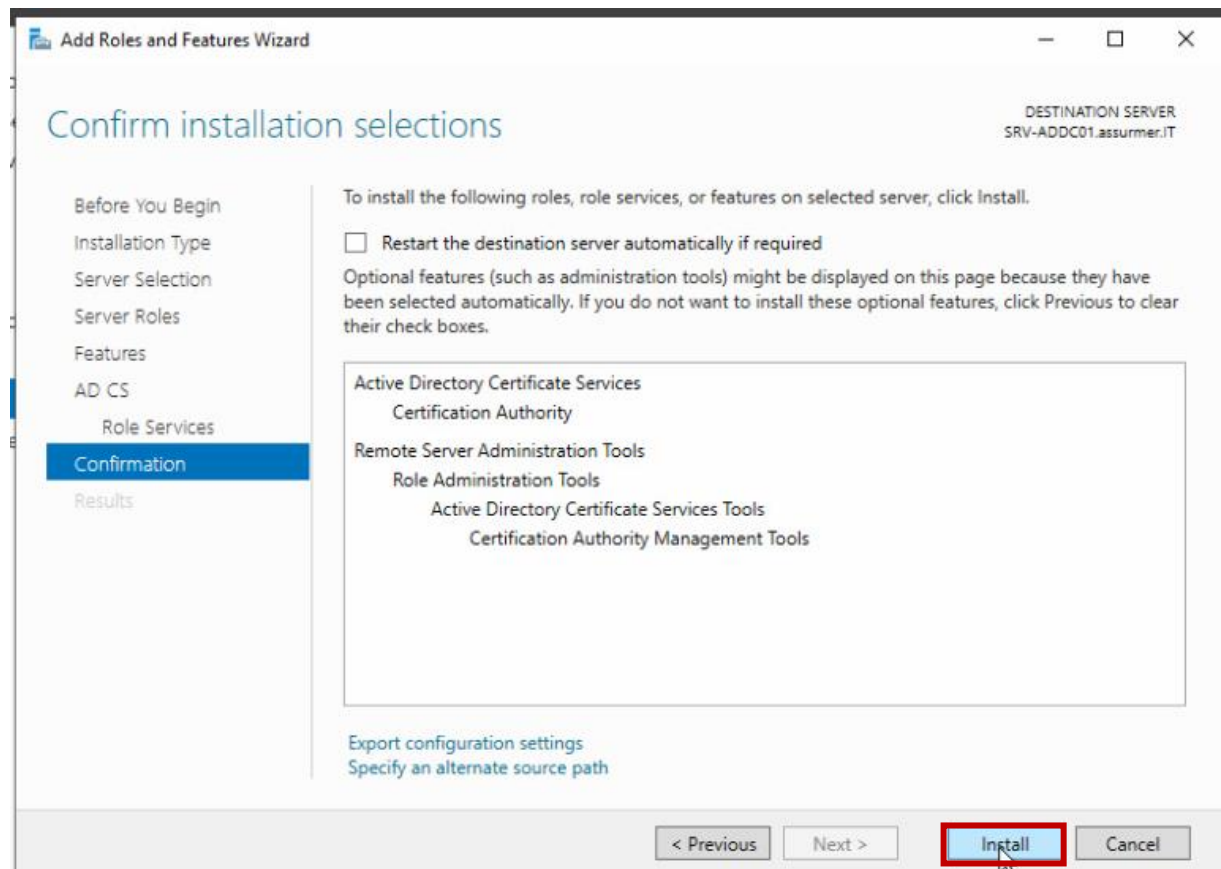


- Sélectionner « Certification Authority » puis « Next »

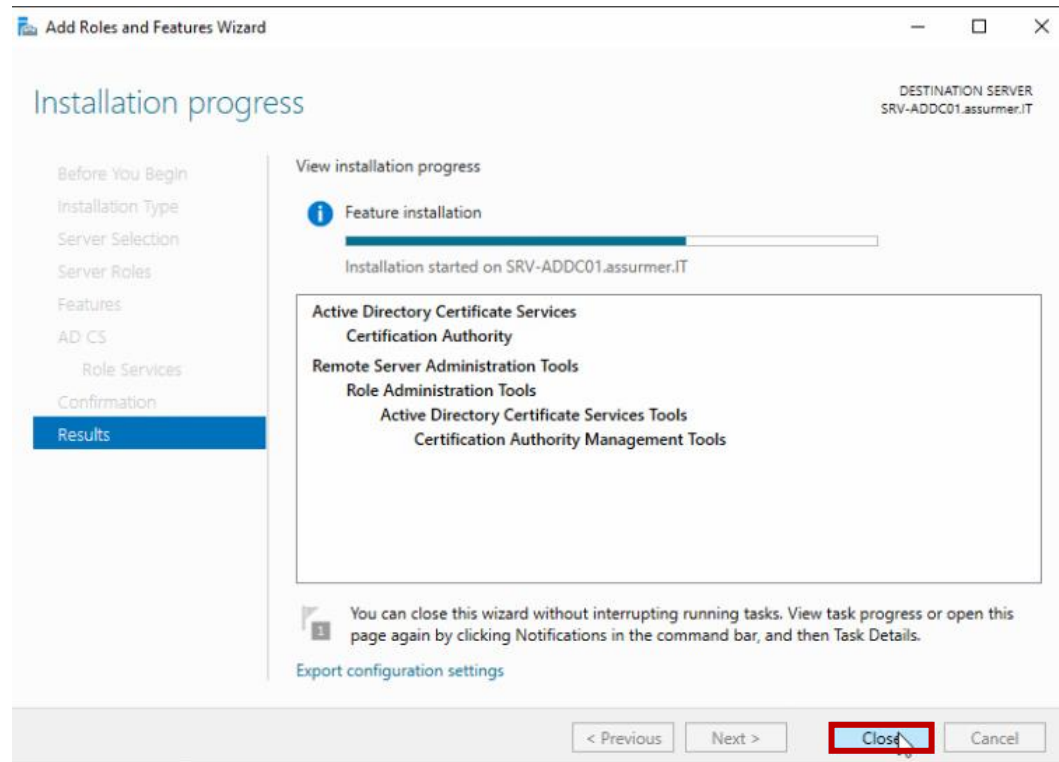


[Procédure] Configuration WiFi & RADIUS

- Cliquer « Install »

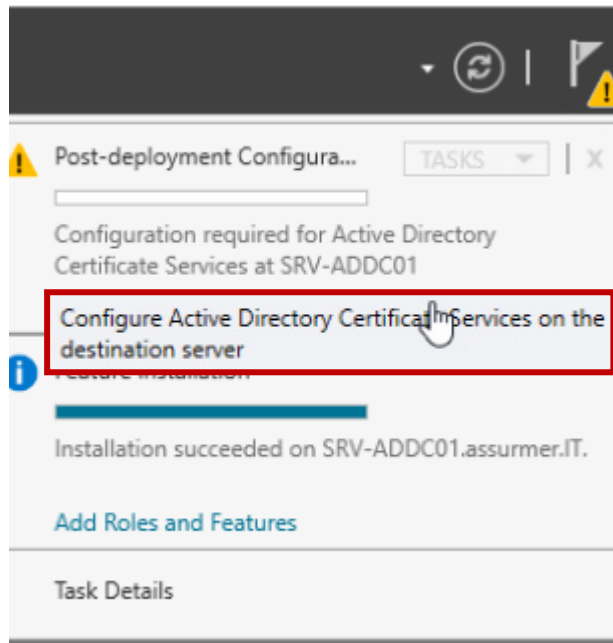


- A la fin de l'installation cliquer sur « Close »

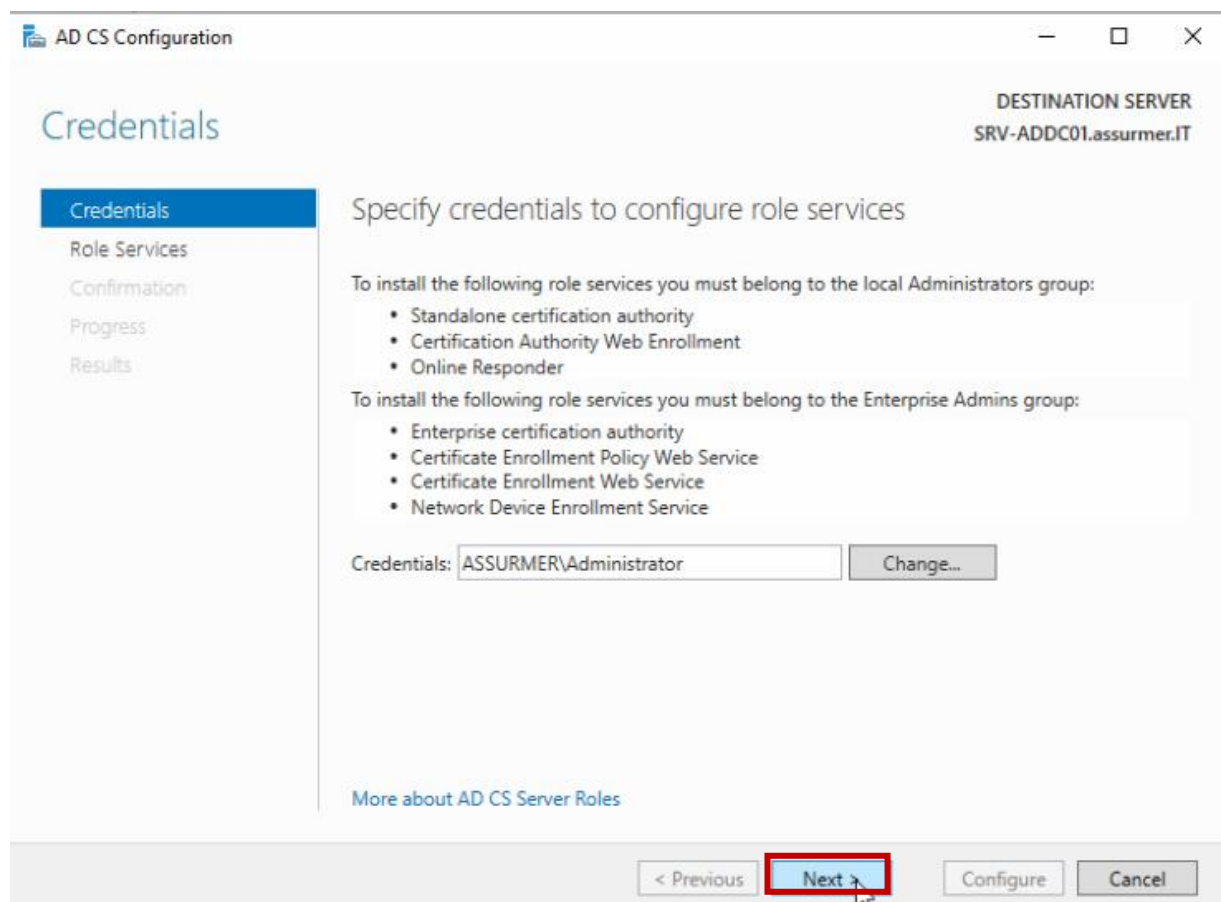


[Procédure] Configuration WiFi & RADIUS

- Configurer le service précédemment installer

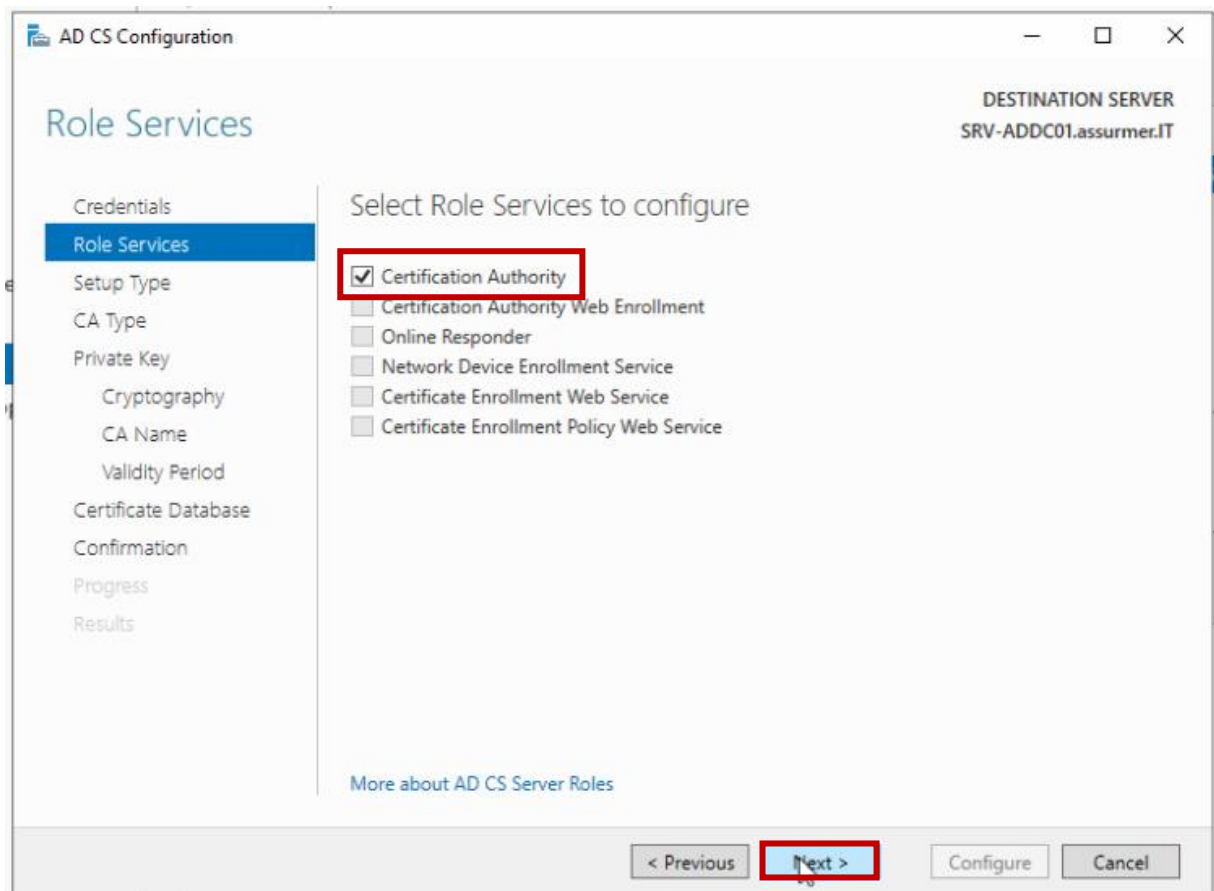


- Cliquer « Next »

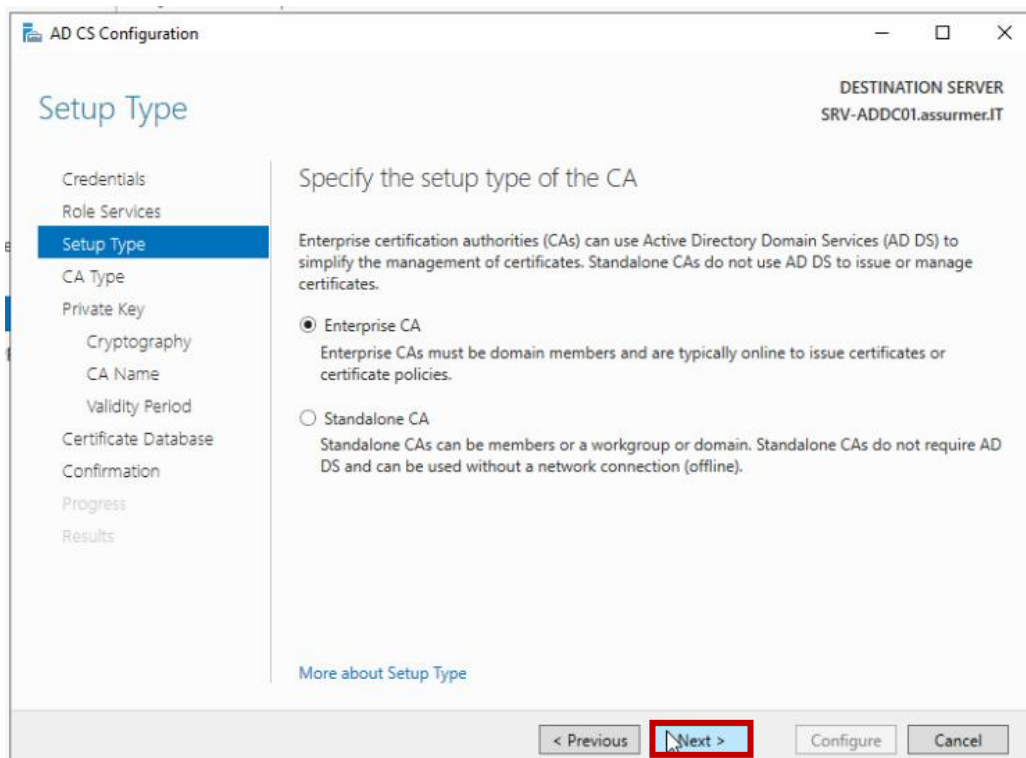


[Procédure] Configuration WiFi & RADIUS

- Sélectionner « Certification Authority »



- Sélectionner « Enterprise CA » puis « Next »



[Procédure] Configuration WiFi & RADIUS

- Sélectionner « Root CA » puis « Next »

The screenshot shows the 'AD CS Configuration' window with the 'CA Type' step selected in the left-hand navigation pane. The main area is titled 'Specify the type of the CA'. It contains a paragraph explaining that a root CA is at the top of the PKI hierarchy and issues its own self-signed certificate. Below this, there are two radio button options: 'Root CA' (which is selected and highlighted with a red box) and 'Subordinate CA'. The 'Root CA' option has a sub-description: 'Root CAs are the first and may be the only CAs configured in a PKI hierarchy.' At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted with a red box), 'Configure', and 'Cancel'. The 'DESTINATION SERVER' is listed as 'SRV-ADDC01.assurmer.IT'.

- Sélectionner « Create a new private key » puis « Next »

The screenshot shows the 'AD CS Configuration' window with the 'Private Key' step selected in the left-hand navigation pane. The main area is titled 'Specify the type of the private key'. It contains a paragraph explaining that a certification authority (CA) must have a private key. Below this, there are two radio button options: 'Create a new private key' (which is selected and highlighted with a red box) and 'Use existing private key'. The 'Create a new private key' option has a sub-description: 'Use this option if you do not have a private key or want to create a new private key.' The 'Use existing private key' option has three sub-options: 'Select a certificate and use its associated private key', 'Select an existing private key on this computer', and 'Select this option if you have retained private keys from a previous installation or want to use a private key from an alternate source.' At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted with a red box), 'Configure', and 'Cancel'. The 'DESTINATION SERVER' is listed as 'SRV-ADDC01.assurmer.IT'.

[Procédure] Configuration WiFi & RADIUS

- Cliquer « Next »

The screenshot shows the 'Cryptography for CA' step in the 'AD CS Configuration' wizard. The left sidebar lists various configuration steps, with 'Cryptography' currently selected. The main area is titled 'Specify the cryptographic options'. It contains two dropdown menus: 'Select a cryptographic provider:' set to 'RSA#Microsoft Software Key Storage Provider' and 'Key length:' set to '2048'. Below these is another dropdown menu 'Select the hash algorithm for signing certificates issued by this CA:' with a list including SHA256, SHA384, SHA512, SHA1, and MD5. A checkbox labeled 'Allow administrator interaction when the private key is accessed by the CA.' is currently unchecked. At the bottom right, the 'Next >' button is highlighted with a red rectangle, indicating the next step in the process.

- Cliquer « Next »

The screenshot shows the 'CA Name' step in the 'AD CS Configuration' wizard. The left sidebar shows 'CA Name' as the selected step. The main area is titled 'Specify the name of the CA'. It includes a text box for 'Common name for this CA:' containing 'assumer-SRV-ADDC01-CA'. Below it is a text box for 'Distinguished name suffix:' containing 'DC=assumer,DC=IT'. A 'Preview of distinguished name:' text box shows the resulting name: 'CN=assumer-SRV-ADDC01-CA,DC=assumer,DC=IT'. At the bottom right, the 'Next >' button is highlighted with a red rectangle, indicating the next step in the process.

[Procédure] Configuration WiFi & RADIUS

- Choisir la durée du certificat puis cliquer « Next »

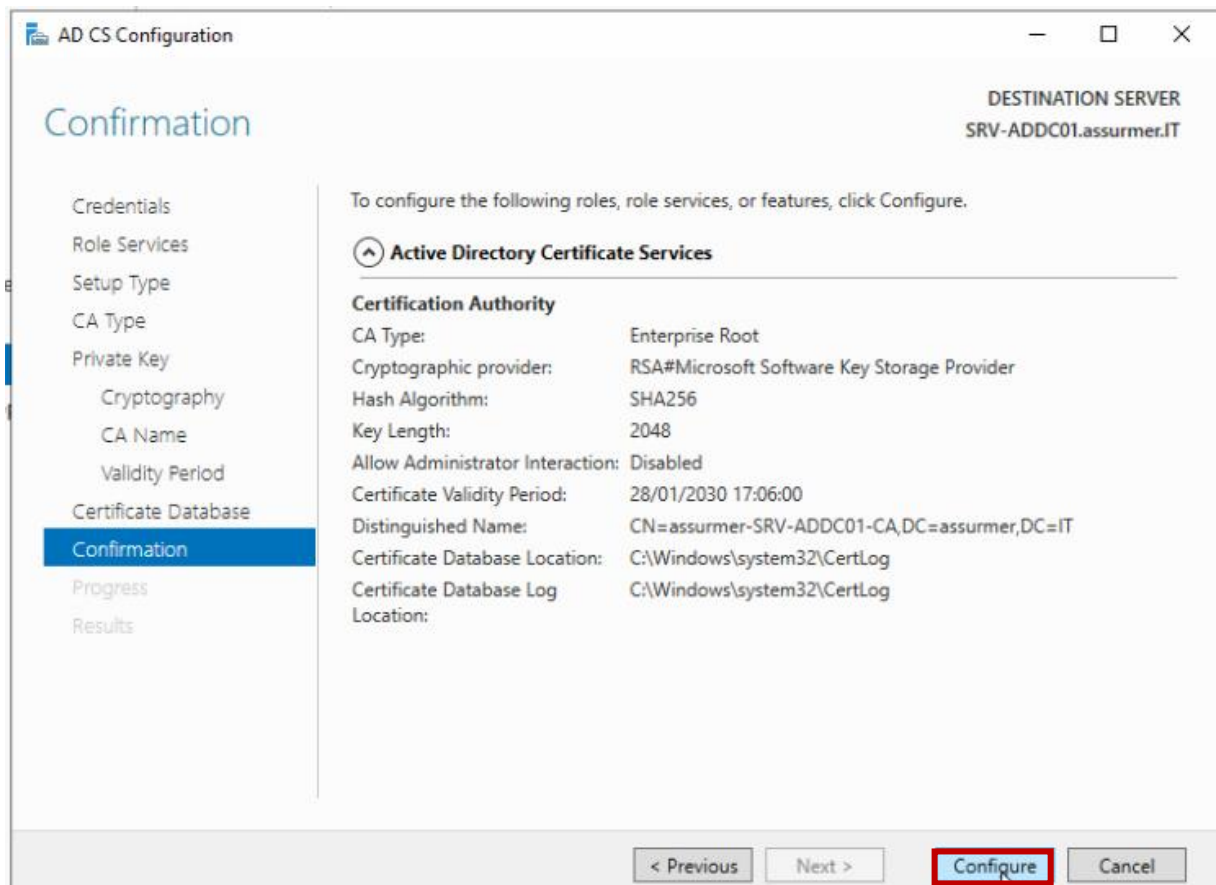
The screenshot shows the 'AD CS Configuration' window with the 'Validity Period' step selected in the left-hand navigation pane. The main area is titled 'Specify the validity period'. It contains a text box with the value '5' and a dropdown menu set to 'Years'. Below this, it shows the 'CA expiration Date: 28/01/2030 17:06:00'. A note states: 'The validity period configured for this CA certificate should exceed the validity period for the certificates it will issue.' At the bottom right, the 'DESTINATION SERVER' is listed as 'SRV-ADDC01.assurmer.IT'. The bottom navigation bar includes buttons for '< Previous', 'Next >' (highlighted with a red box), 'Configure', and 'Cancel'.

- Laisser les chemins par défauts et cliquer « Next »

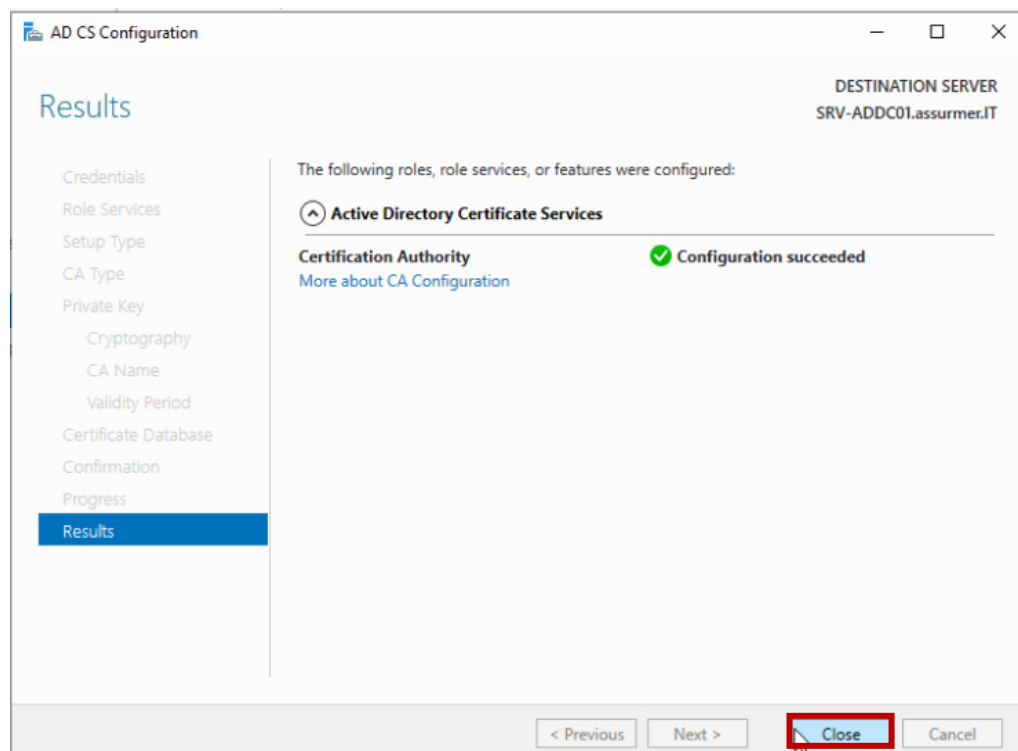
The screenshot shows the 'AD CS Configuration' window with the 'CA Database' step selected in the left-hand navigation pane. The main area is titled 'Specify the database locations'. It contains two text boxes: 'Certificate database location:' and 'Certificate database log location:', both containing the default path 'C:\Windows\system32\CertLog'. At the bottom right, the 'DESTINATION SERVER' is listed as 'SRV-ADDC01.assurmer.IT'. The bottom navigation bar includes buttons for '< Previous', 'Next >' (highlighted with a red box), 'Configure', and 'Cancel'.

[Procédure] Configuration WiFi & RADIUS

- Cliquer sur « Configure »

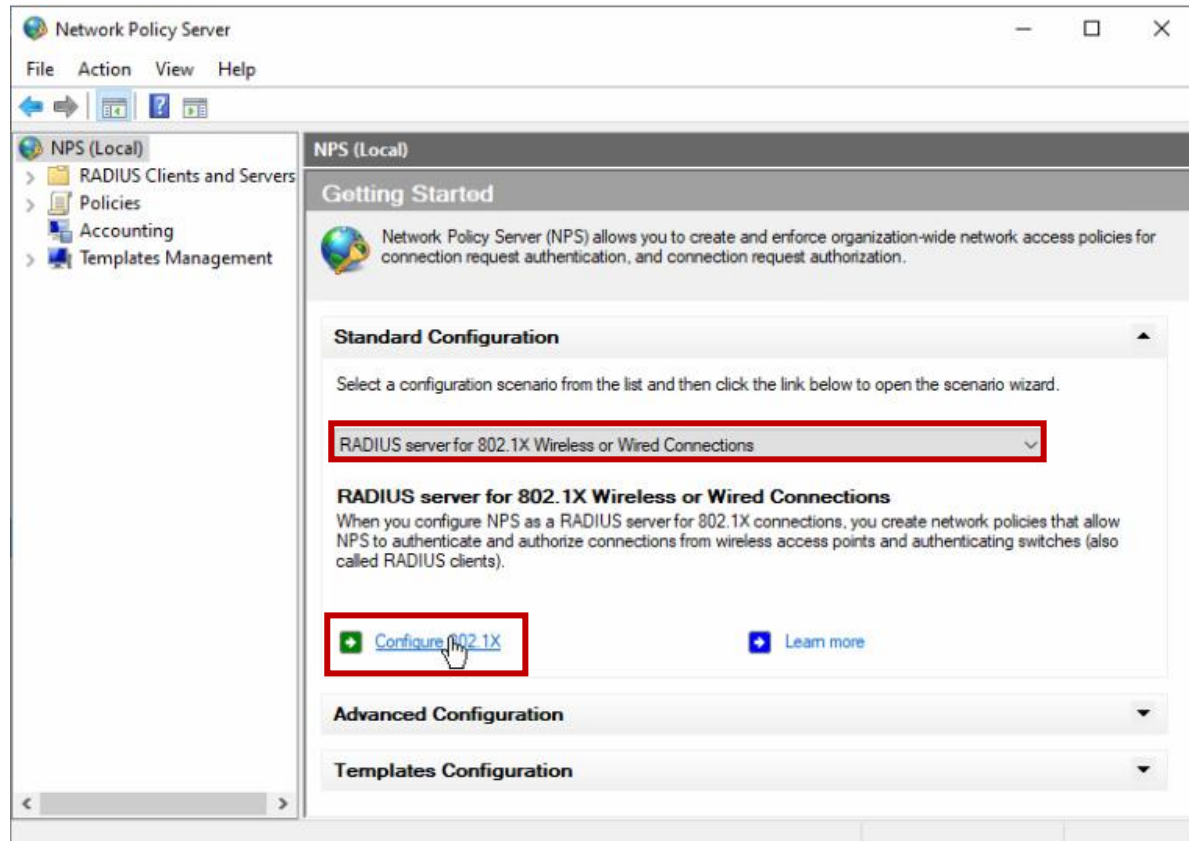


- Cliquer sur « Close »

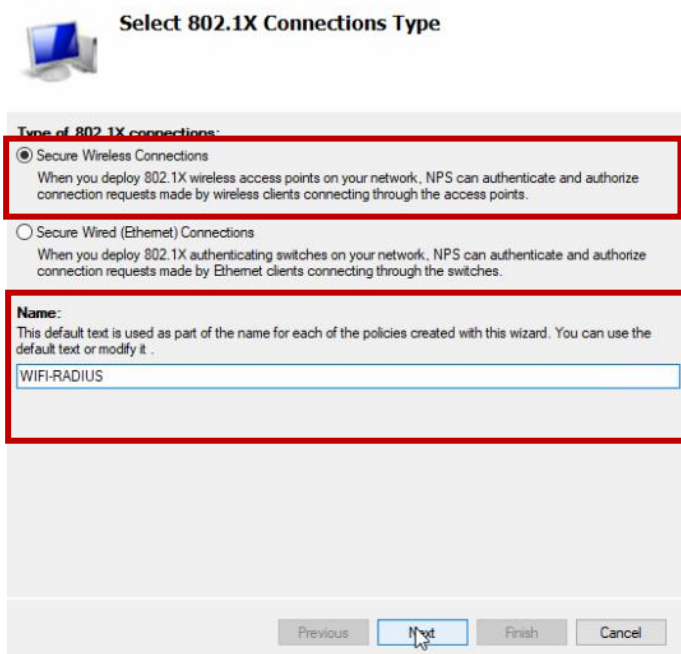


Configuration 802.1X :

- Dans NPS sélectionner « RADIUS server for 802.1X ... » puis « Configure 802.1X »

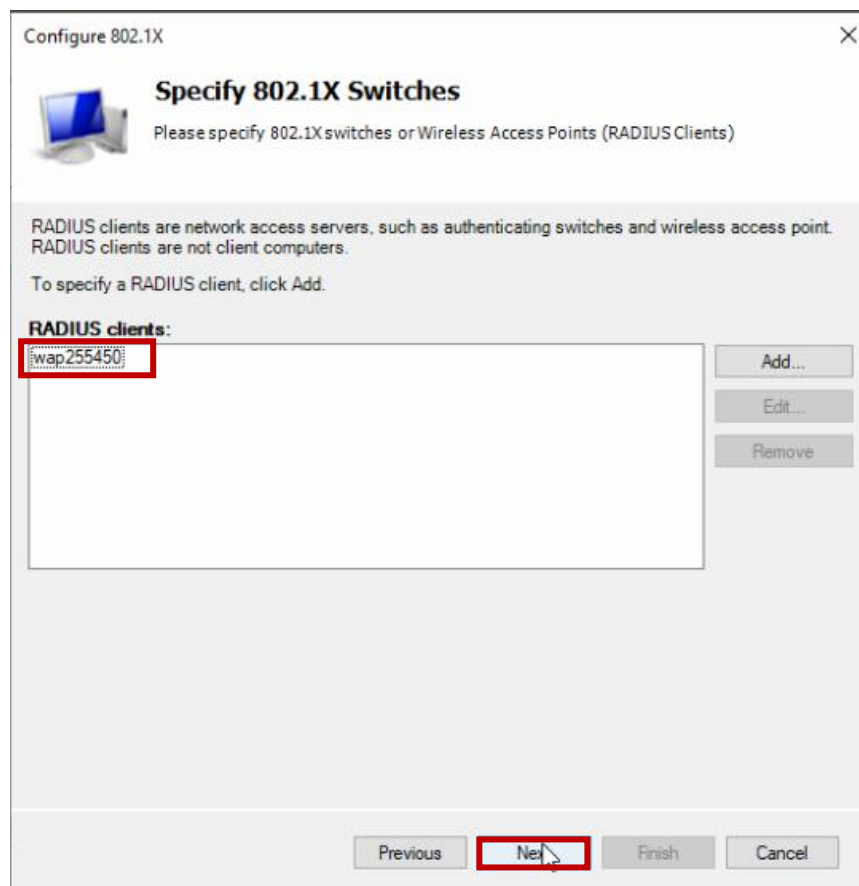


- Sélectionner « Secure Wireless Connections » puis choisir un nom

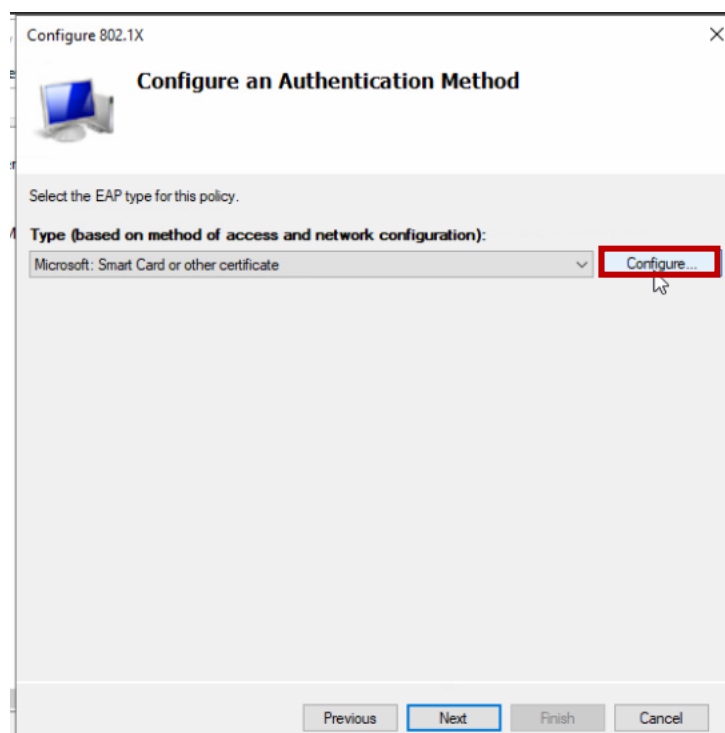


[Procédure] Configuration WiFi & RADIUS

- Ensuite la borne sera identifiée et cliquer « Next »

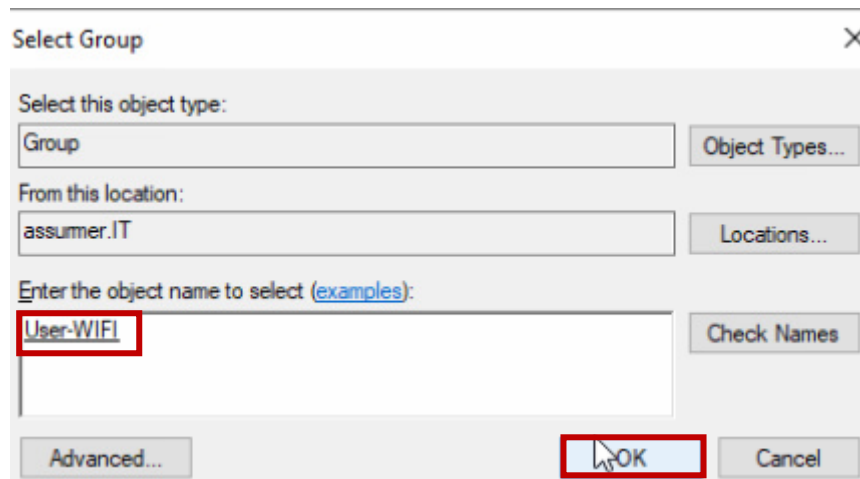


- Sélectionner « Microsoft Smart ... » dans le menu déroulant puis cliquer sur « Configure »



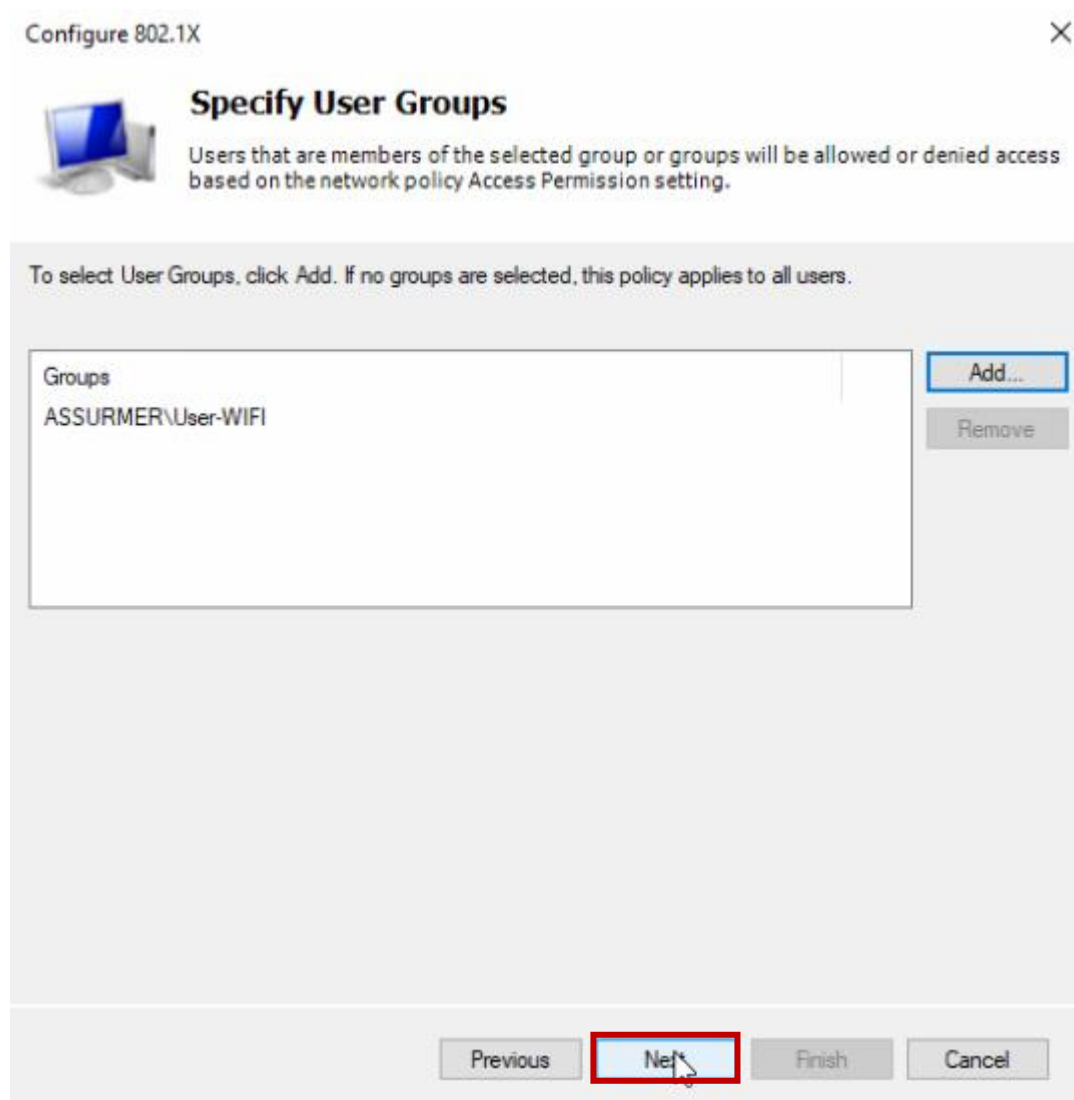
[Procédure] Configuration WiFi & RADIUS

- Choisir le groupe de sécurité qui doit avoir accès au WiFi



The 'Select Group' dialog box is shown. It has a title bar with a close button. Inside, there are three main sections: 'Select this object type:' with a dropdown menu set to 'Group' and an 'Object Types...' button; 'From this location:' with a dropdown menu set to 'assumer.IT' and a 'Locations...' button; and 'Enter the object name to select (examples):' with a text input field containing 'User-WIFI' and a 'Check Names' button. At the bottom, there are three buttons: 'Advanced...', 'OK' (highlighted with a red box and a mouse cursor), and 'Cancel'.

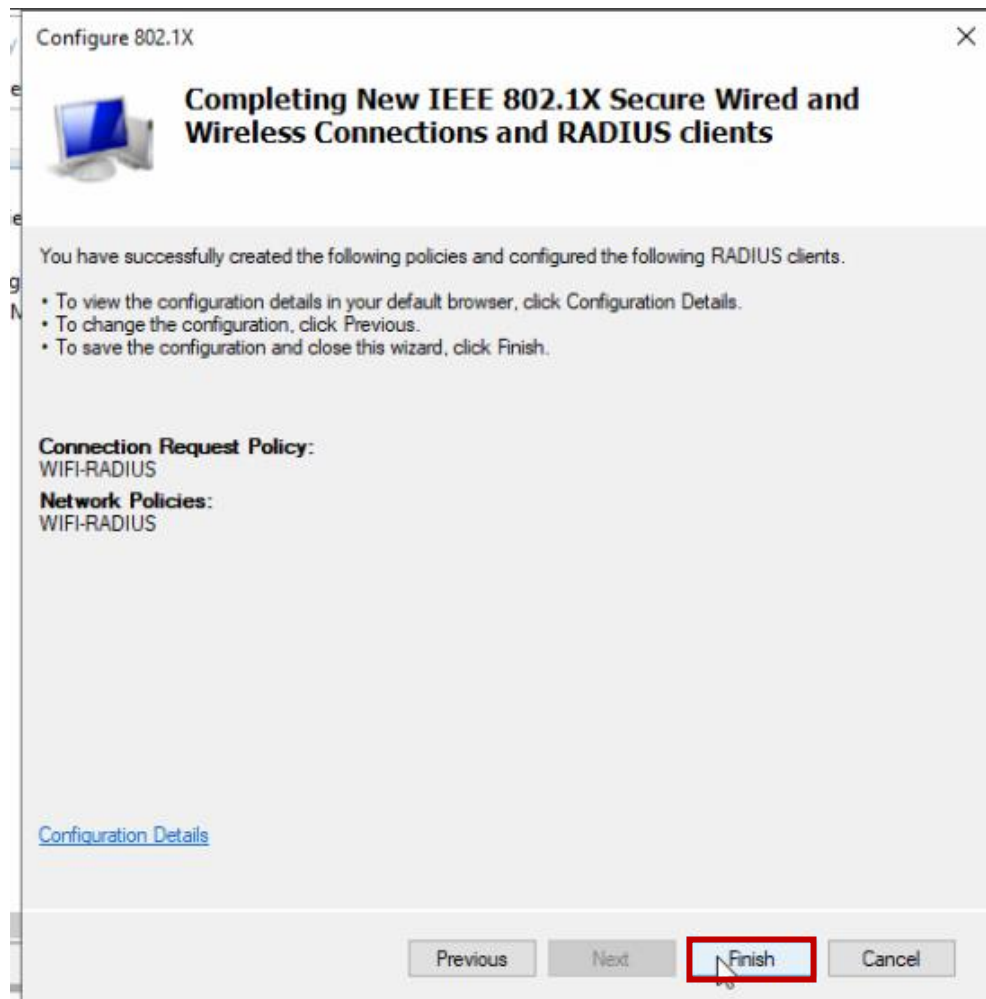
- Cliquer « Next »



The 'Configure 802.1X' window is shown, titled 'Specify User Groups'. It includes a small icon of a computer and a paragraph explaining that users in the selected group will be allowed or denied access based on the network policy. Below this, a text box says 'To select User Groups, click Add. If no groups are selected, this policy applies to all users.' There is a list box labeled 'Groups' containing 'ASSURMER\User-WIFI'. To the right of the list box are 'Add...' and 'Remove' buttons. At the bottom of the window are four buttons: 'Previous', 'Next' (highlighted with a red box and a mouse cursor), 'Finish', and 'Cancel'.

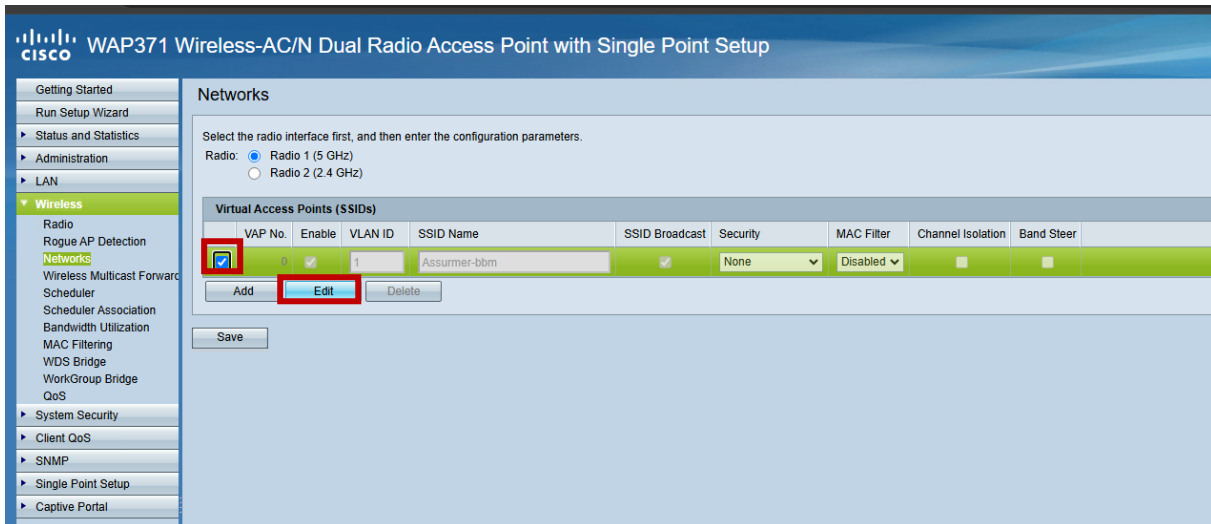
[Procédure] Configuration WiFi & RADIUS

- Cliquer « Finish »



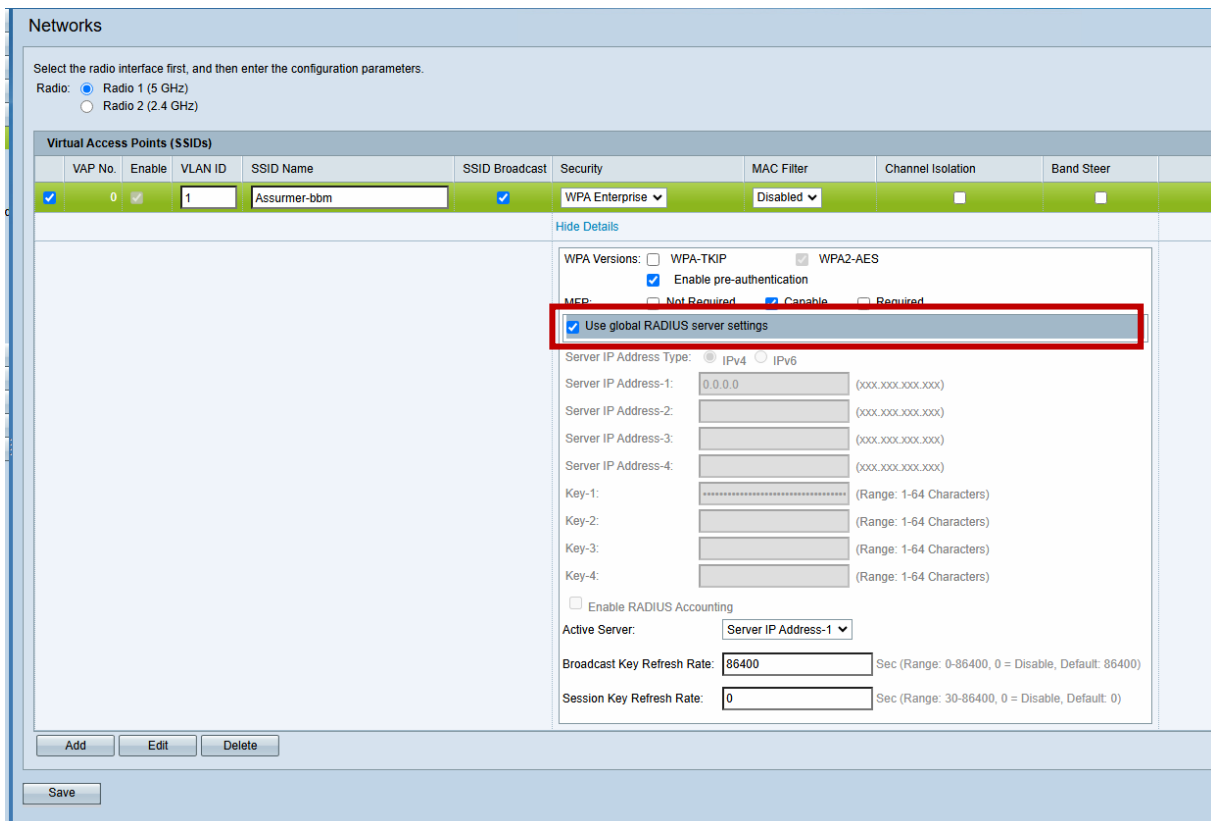
Configuration borne WiFi pour RADIUS :

- Sur l'interface Web, sélectionner « Edit »



The screenshot shows the Cisco WAP371 configuration interface. On the left is a navigation menu with options like 'Getting Started', 'Run Setup Wizard', 'Status and Statistics', 'Administration', 'LAN', 'Wireless', 'Radio', 'Rogue AP Detection', 'Networks', 'Wireless Multicast Forwarding', 'Scheduler', 'Scheduler Association', 'Bandwidth Utilization', 'MAC Filtering', 'WDS Bridge', 'WorkGroup Bridge', 'QoS', 'System Security', 'Client QoS', 'SNMP', 'Single Point Setup', and 'Captive Portal'. The 'Networks' section is selected. The main area is titled 'Virtual Access Points (SSIDs)' and contains a table with columns: VAP No., Enable, VLAN ID, SSID Name, SSID Broadcast, Security, MAC Filter, Channel Isolation, and Band Steer. The first row shows VAP No. 0, Enable checked, VLAN ID 1, SSID Name 'Assumer-bbm', SSID Broadcast checked, Security 'None', MAC Filter 'Disabled', Channel Isolation unchecked, and Band Steer unchecked. Below the table are 'Add', 'Edit', and 'Delete' buttons. The 'Edit' button is highlighted with a red box. A 'Save' button is also present.

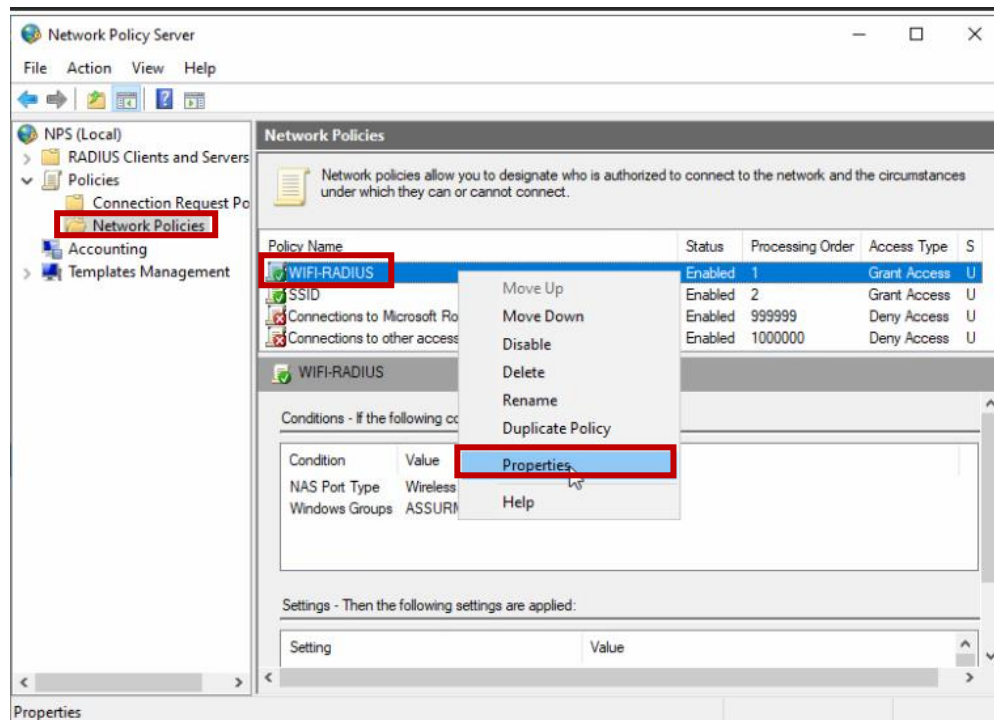
- Cocher « Use global RADIUS server settings »



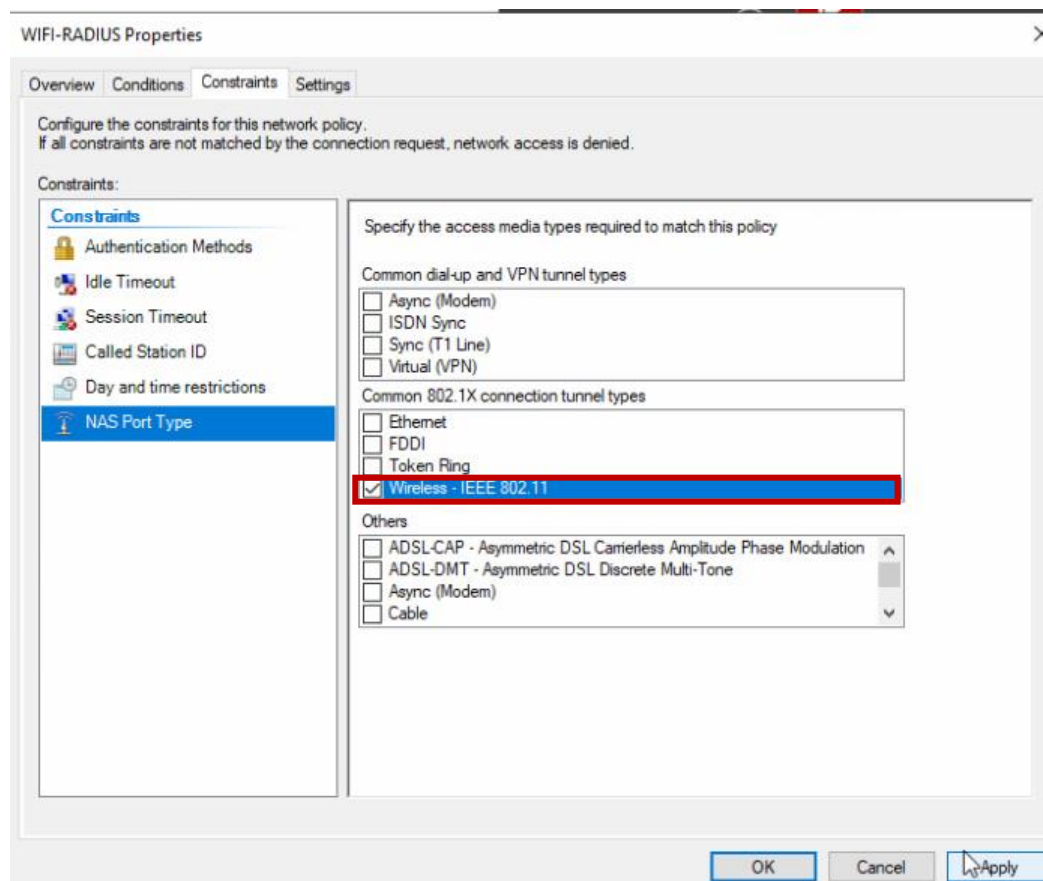
The screenshot shows the 'Virtual Access Points (SSIDs)' table with the first row selected. Below the table is a 'Hide Details' link. The details section is expanded, showing 'WPA Versions' with 'WPA2-AES' selected and 'WPA-TKIP' unchecked. 'Enable pre-authentication' is checked. 'MFP' is set to 'Capable'. The 'Use global RADIUS server settings' checkbox is checked and highlighted with a red box. Below this, there are fields for 'Server IP Address Type' (IPv4 selected), 'Server IP Address-1' through 'Server IP Address-4', 'Key-1' through 'Key-4', 'Enable RADIUS Accounting' (unchecked), 'Active Server' (Server IP Address-1), 'Broadcast Key Refresh Rate' (86400), and 'Session Key Refresh Rate' (0). At the bottom are 'Add', 'Edit', 'Delete', and 'Save' buttons.

[Procédure] Configuration WiFi & RADIUS

- Retourner sur NPS puis « Network Polities » puis clic-droit sur la politique RADIUS



- Sélectionner « Wireless – IEEE 802.11 » puis « Apply » et « OK »



[Procédure] Configuration WiFi & RADIUS

- Sur NPS et « Network Policies », supprimer les politiques par défaut

