

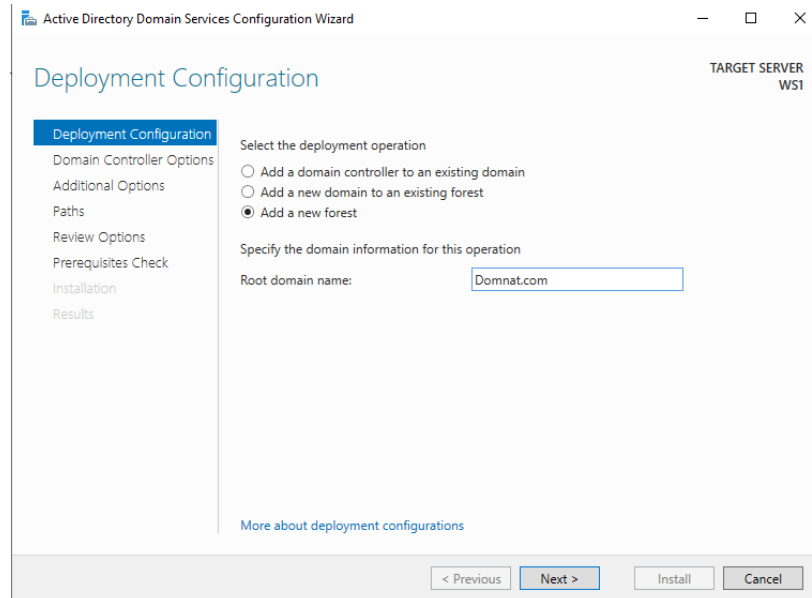
## INFO603 Practical project documentation template (Engineering journal)

Section number: Two

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Setting domain name for the new forest

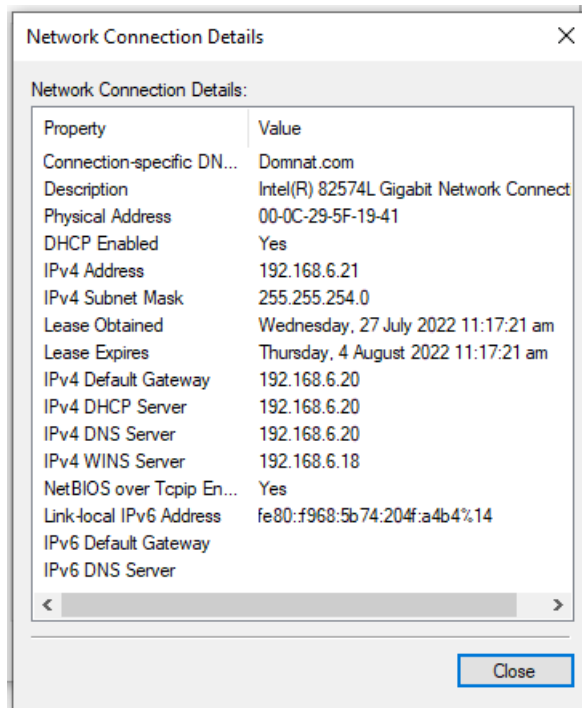
Local users who were previously not assigned to any domain become members of a new forest when it is created. This gives users and resources in the forest autonomy. Outside of the forest, services and data are inaccessible. Forest trust relationships can provide access to resources that exist outside of forests.



Click add roles & features -> role-based -> click next -> for sever selection select WS1 -> click Active directory domain services -> navigate to the end and install AD DS -> once installed select notifications -> click promote this server to a domain controller -> select add new forest -> enter domain name -> click next -> enter password -> click next till you get to install -> click install

Client VM  
obtaining IP  
address

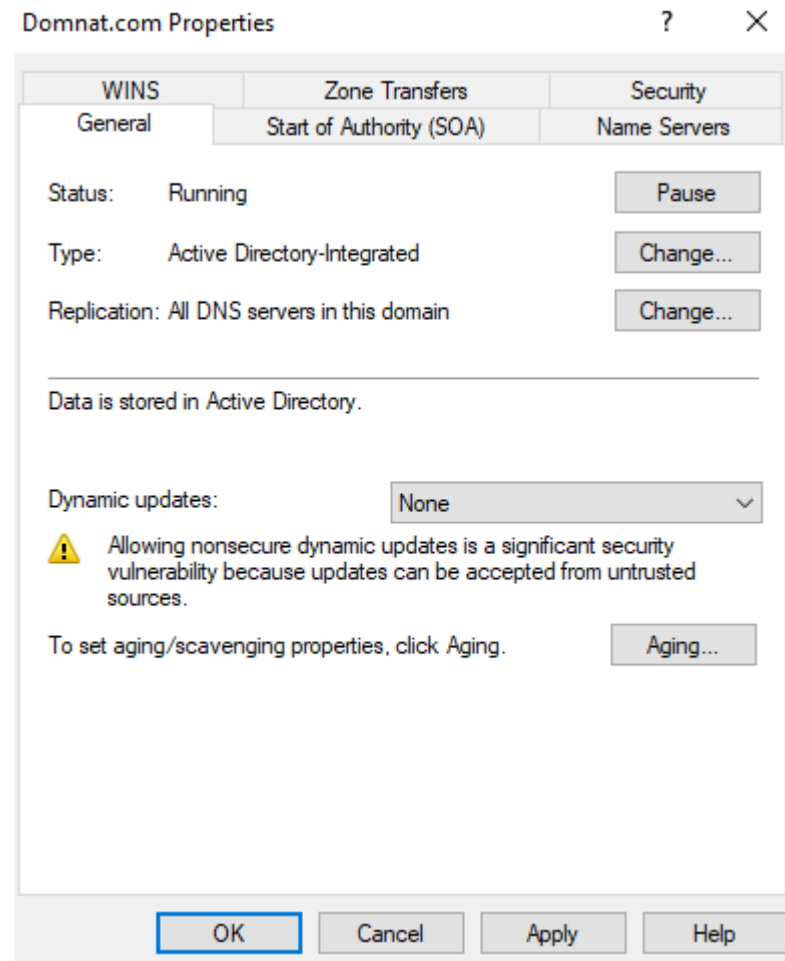
The Client VM is obtaining an IP address from the DHCP server on WS1, WS1 is configured to provide IP address to clients.



Open settings -> click network -> ethernet-> right click adapter -> select status.

Disabling  
Dynamic  
updates

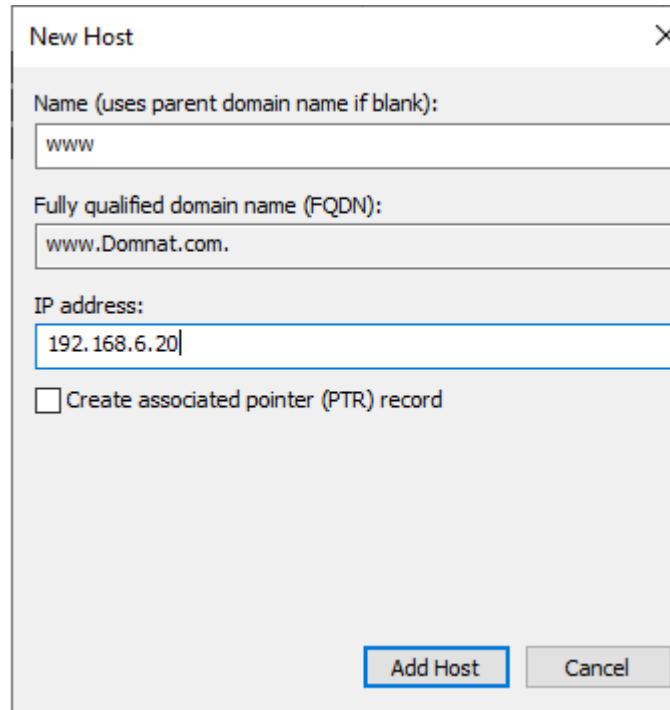
Disabling dynamic updates makes your network more secure by preventing nonsecure dynamic updates from being performed.



Server manager -> Tools -> DNS -> Click WS1 -> expand menu -> right click forward lookup Zone -> click new zone -> click next -> select Primary zone -> Next -> enter zone name -> Next -> select do not allow dynamic updates -> Next -> Finish

Creating new  
DNS records

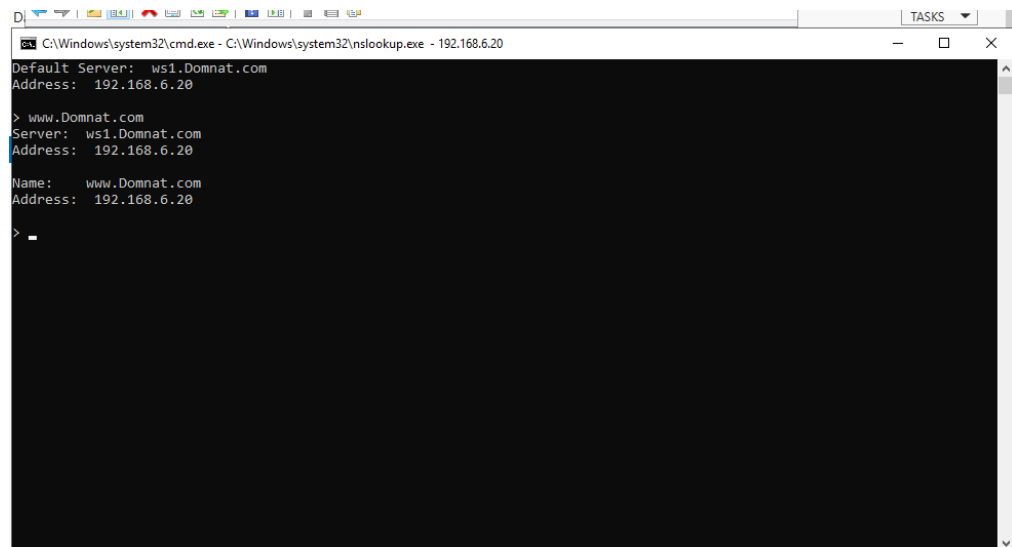
A DNS record is a simple database that maps URLs to IP addresses. This makes it much easier for users to remember the name of a website rather than an IP address.



Server manager -> Tools -> DNS -> Click WS1 -> expand menu -> double click Zone name -> right click a blank space in the Zone -> select add new host -> enter details -> click add host

Launching  
nslookup

This will allow you to see the IP addresses that correspond to specific hosts/domains. E.g. 192.168.6.20 = Ws1.domnat.com or www.domnat.com



```
D:\> C:\Windows\system32\cmd.exe - C:\Windows\system32\nslookup.exe - 192.168.6.20
Default Server:  ws1.Domnat.com
Address:  192.168.6.20

> www.Domnat.com
Server:  ws1.Domnat.com
Address:  192.168.6.20

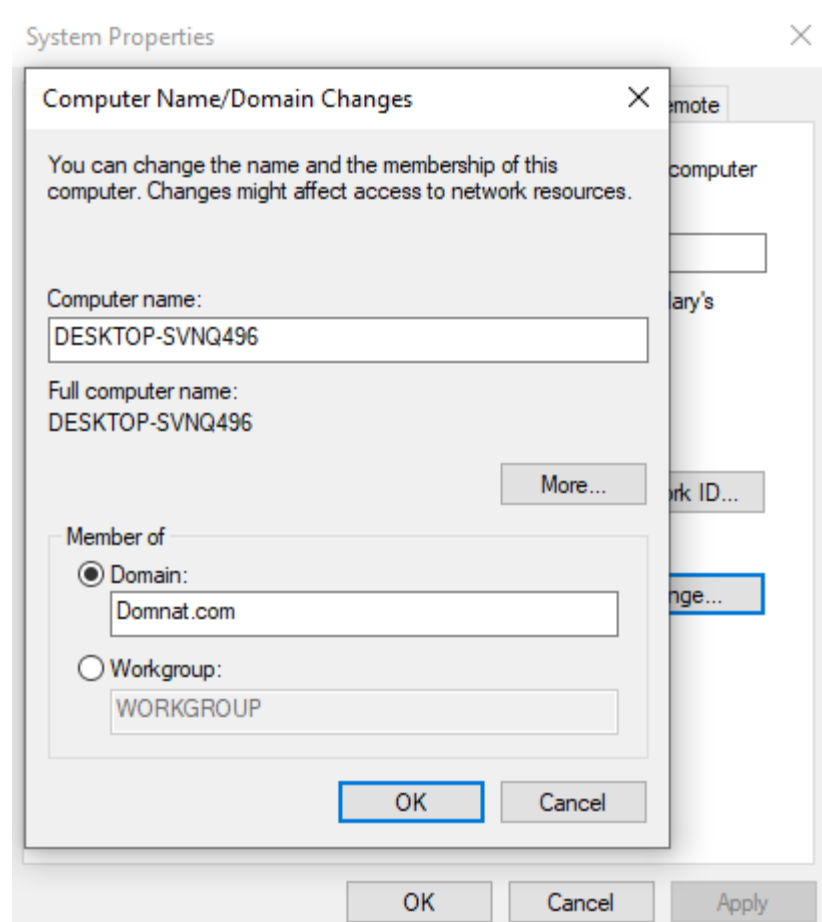
Name:    www.Domnat.com
Address:  192.168.6.20

> .
```

Server manager -> Tools -> DNS -> right click WS1 -> select Launch nslookup

Add client to domain

Joining a client to a domain allows users to access resources in that domain while also allowing administrators to manage and implement security policies, making the network much more secure.



Open control panel -> System & Security -> right System -> Select open -> change settings -> click change -> select member of -> enter domain name -> click Ok -> restart computer

Add WS2 to WS1 as a child domain

Creating a child domain provides users with the same benefits as the parent domain, which means that the child domain has access to the same resources and groups as the parent, depending on the admin's policies.

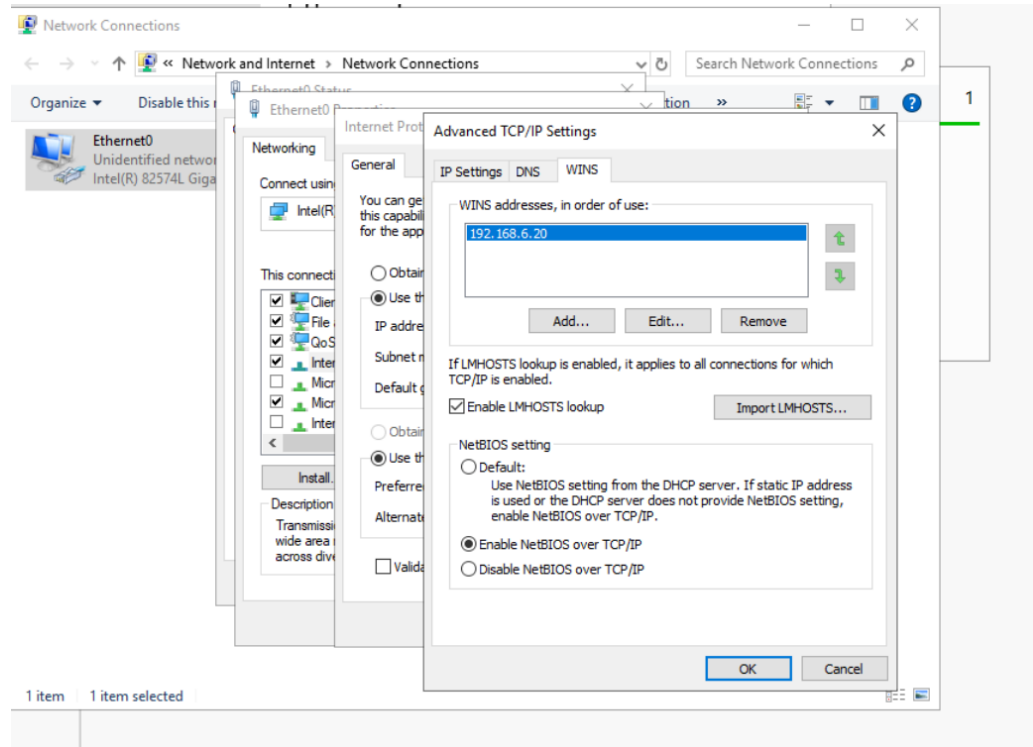
The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window, specifically the 'Deployment Configuration' step. The window has a title bar with standard Windows controls. On the left is a navigation pane with links: 'Deployment Configuration' (highlighted), 'Domain Controller Options', 'Additional Options', 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main area is titled 'Deployment Configuration' and includes a 'TARGET SERVER WS2' label in the top right. It contains three sections: 1. 'Select the deployment operation' with three radio buttons: 'Add a domain controller to an existing domain', 'Add a new domain to an existing forest' (selected), and 'Add a new forest'. 2. 'Specify the domain information for this operation' with a 'Select domain type:' dropdown set to 'Child Domain', a 'Parent domain name:' text box containing 'domnat.com' with a 'Select...' button, and a 'New domain name:' text box containing 'Child.domnat.com'. 3. 'Supply the credentials to perform this operation' with a text box containing 'domnat administrator' and a 'Change...' button. At the bottom are navigation buttons: '< Previous', 'Next >' (highlighted), 'Install', and 'Cancel'. A link 'More about deployment configurations' is at the bottom left of the main area.

Open server manager -> Select add roles & features -> AD DS -> navigate to install -> once installed -> notifications -> click promote this server to a domain controller -> select -> add a new domain to an existing forest -> enter parent domain name -> enter credentials -> navigate to install -> select install.

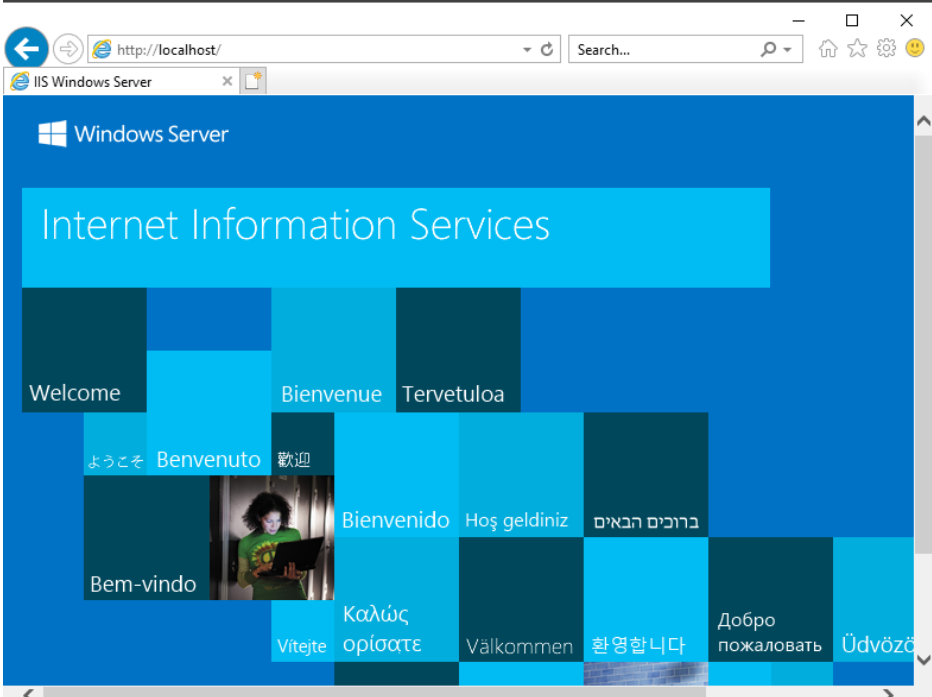
## WINS role

The purpose of a WINS is to map computer NetBIOS names to IP address.

Open adapter settings -> select your adapter -> select ipv4 -> click properties -> click advanced -> select the WINS tab -> click add -> enter IP address -> click enable NetBIOS over TCP/IP -> click OK



Open server manager -> Select add roles & features -> Select Wins -> navigate to install -> click install.

IIS Web server	<p>Open server manager -&gt; click add roles &amp; features -&gt; Role based -&gt; click next -&gt; select web server IIS -&gt; click next -&gt; click next -&gt; click install.</p> <p>Go to dashboard -&gt; click IE enhanced security configuration -&gt; select off for both radio buttons -&gt; click ok -&gt; refresh dashboard to see changes.</p> <p>Open IE -&gt; click OK -&gt; type "local host" in the search bar -&gt; the following page will open.</p> 
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List At the three most useful Internet resources that you used (provided by the tutor)

<ul style="list-style-type: none"> <li>Join client to a domain <a href="https://www.youtube.com/watch?v=86TU6wZfPfk&amp;ab_channel=ittaster">https://www.youtube.com/watch?v=86TU6wZfPfk&amp;ab_channel=ittaster</a></li> </ul>
<ul style="list-style-type: none"> <li>Create a domain controller <a href="https://www.youtube.com/watch?v=Wa7yqCNAIBo">https://www.youtube.com/watch?v=Wa7yqCNAIBo</a></li> </ul>
<ul style="list-style-type: none"> <li>Server manager <a href="https://www.youtube.com/watch?v=rq-Dqjb_LGU">https://www.youtube.com/watch?v=rq-Dqjb_LGU</a></li> </ul>

List all (at least three) Internet resources that you found and used that were not provided by the tutor

<a href="https://www.youtube.com/watch?v=gEn8j9vkaMU&amp;ab_channel=AltonHardin">https://www.youtube.com/watch?v=gEn8j9vkaMU&amp;ab_channel=AltonHardin</a>
<a href="https://docs.microsoft.com/en-us/windows-server/identity/ad-ds/deploy/troubleshooting-domain-controller-deployment">https://docs.microsoft.com/en-us/windows-server/identity/ad-ds/deploy/troubleshooting-domain-controller-deployment</a>
<a href="https://techcommunity.microsoft.com/t5/azure-virtual-desktop/user-in-child-domain-gets-connection-denied-when-connecting-to/td-p/2317489">https://techcommunity.microsoft.com/t5/azure-virtual-desktop/user-in-child-domain-gets-connection-denied-when-connecting-to/td-p/2317489</a>



Reflect on at least two significant problems you came across during the implementation of this section and the solution you found. Use at least five sentence to describe each problem and five sentences to describe each solution. Demonstrate your critical thinking and problem-solving abilities.

Problem	Solution
Can't join the client to the domain of WS1	Haven't found a solution yet, but I have watched some YouTube videos and verified connectivity between the server and client as I'm able to ping. <a href="https://www.youtube.com/watch">https://www.youtube.com/watch</a>
Can't join WS2 to WS1 as a child domain	Solution Michael provide me with a working VM