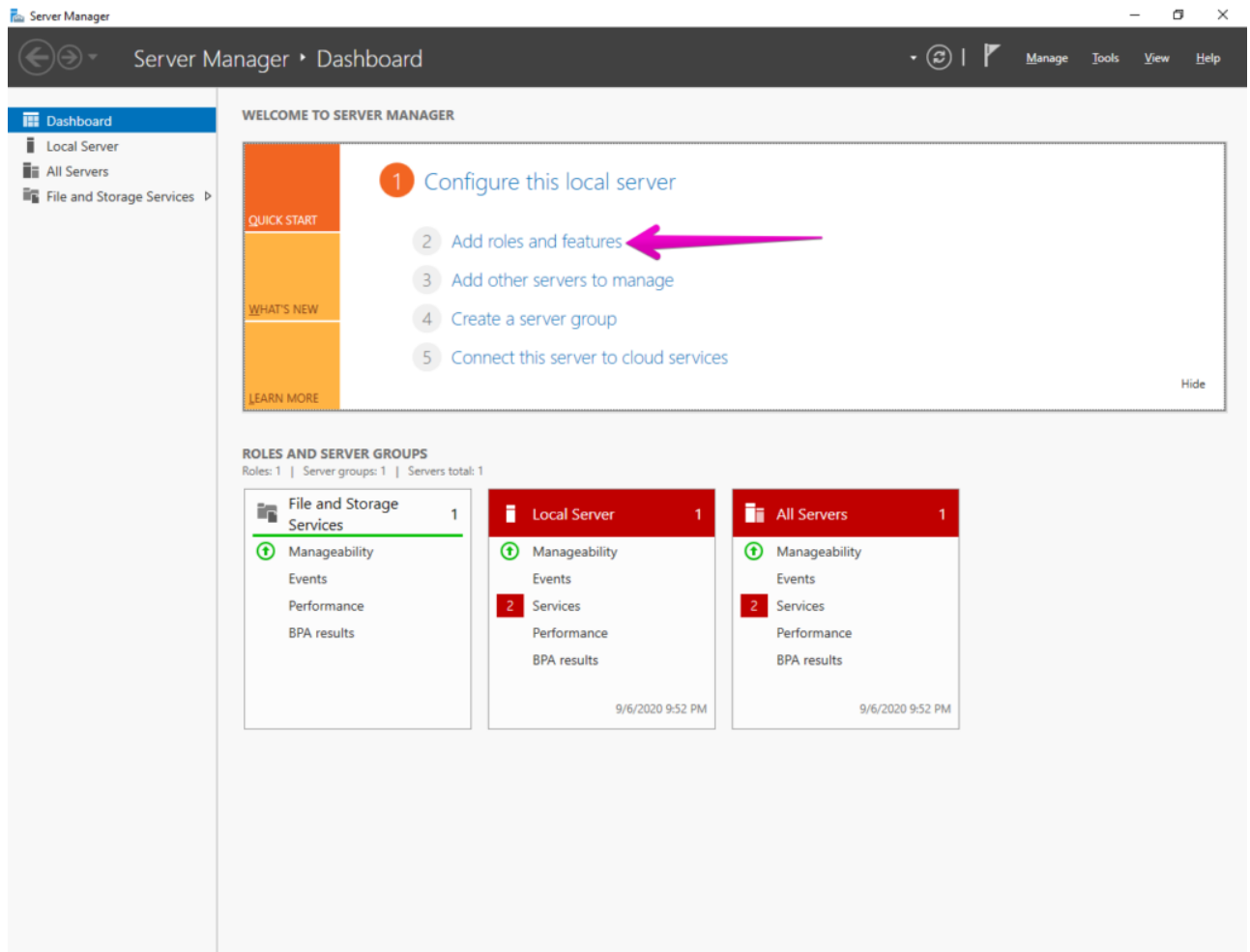


# Windows Server 2019 (Desktop Experience) DNS Server Setup

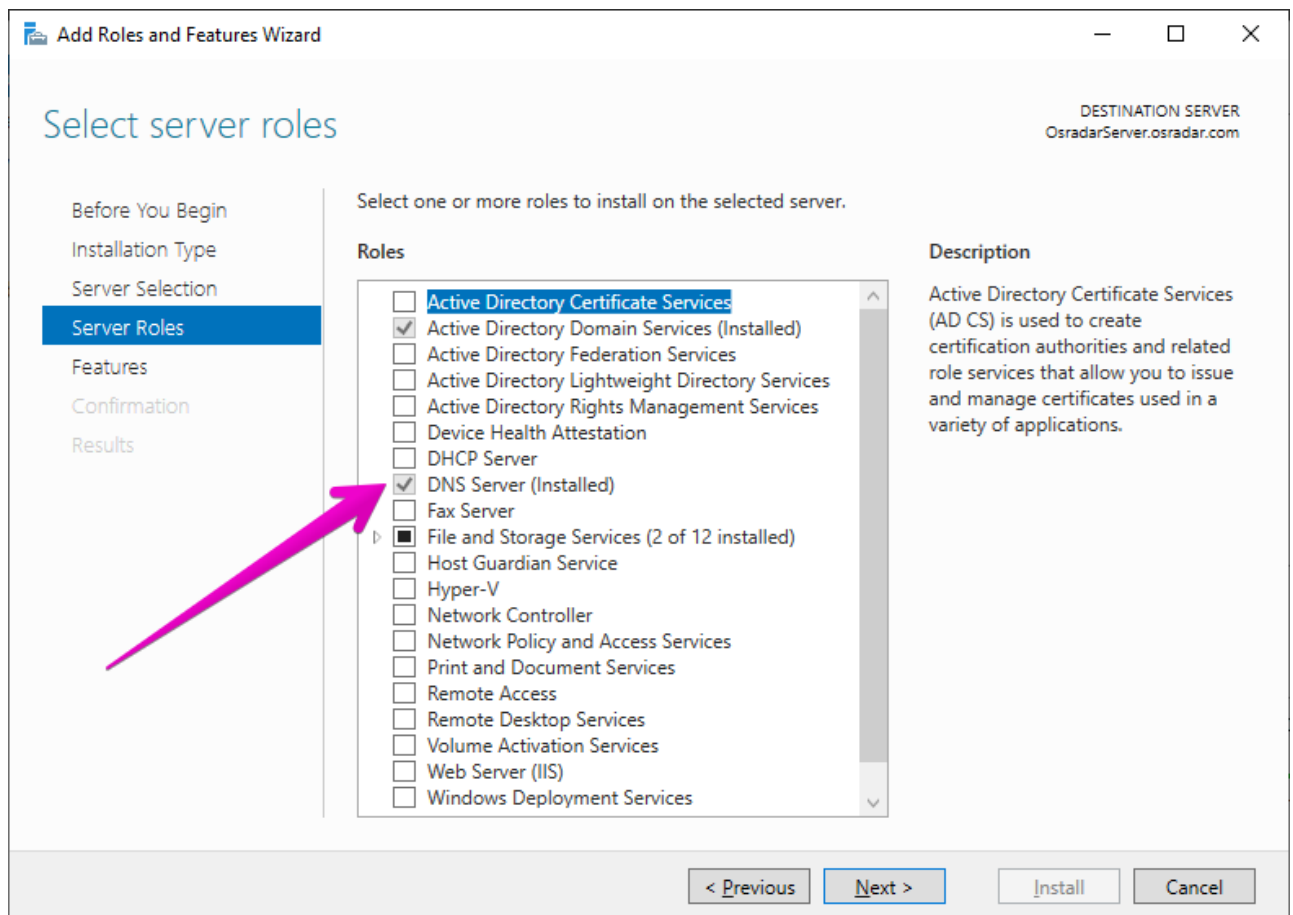
## Wie setzt man einen DNS-Server auf?

1. Öffne deinen Windows Server Manager und klicke auf "add roles und features".



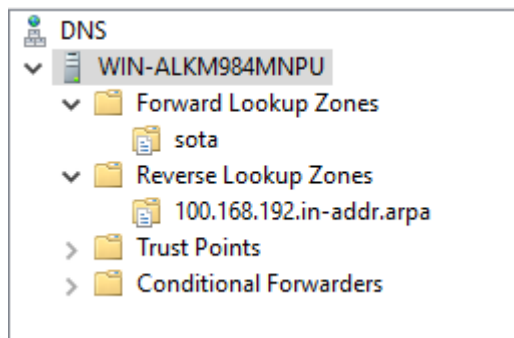
2. Klicke einfach auf next bis du zum fenster "Server Roles" ein.

### 3. Wähle die Rolle "DNS-Server" aus.



### 4. Öffne den DNS-Manager.

### 5. Fahre, dann das menu von deinem Server aus bis du "Forward Lookupzone" und "Reverse Lookupzone"

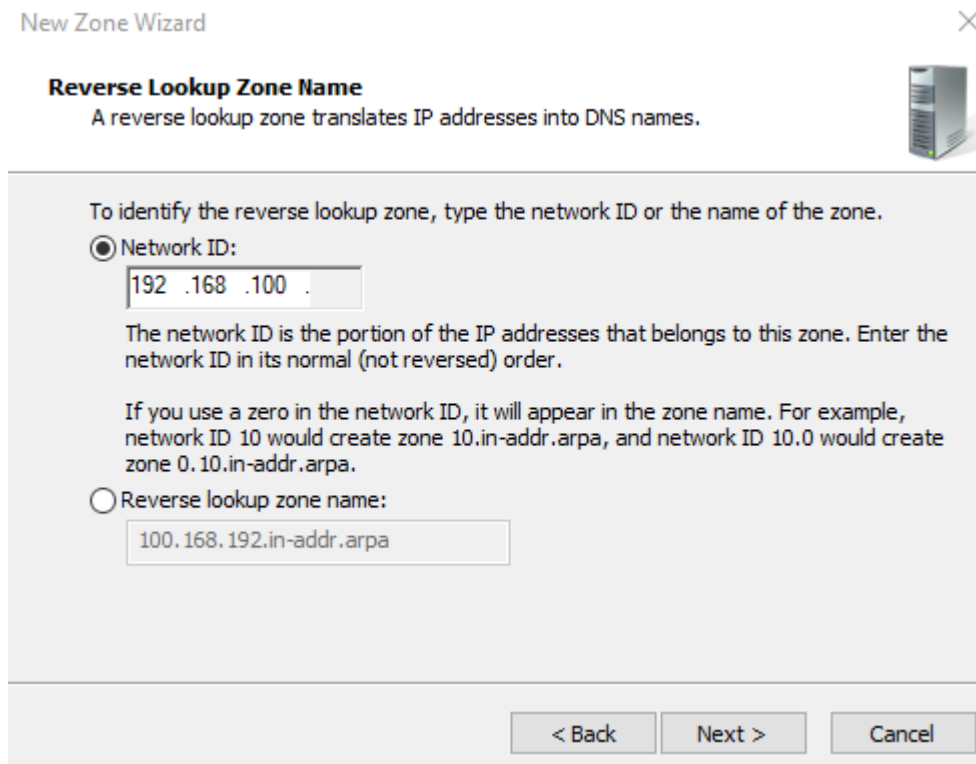


siehist.

## Erstellung der Reverse Lookupzone

1. Kreeiere zuerst in der "Reverse Lookupzone" eine neue Zone, klicke auf next bis du deine Netzwerk-ID festlegen kannst.

2. Füge dann hier deine Netzwerk-ID ein.



**New Zone Wizard** [Close]

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

To identify the reverse lookup zone, type the network ID or the name of the zone.

☒ **Network ID:**  
192 .168 .100 .

The network ID is the portion of the IP addresses that belongs to this zone. Enter the network ID in its normal (not reversed) order.

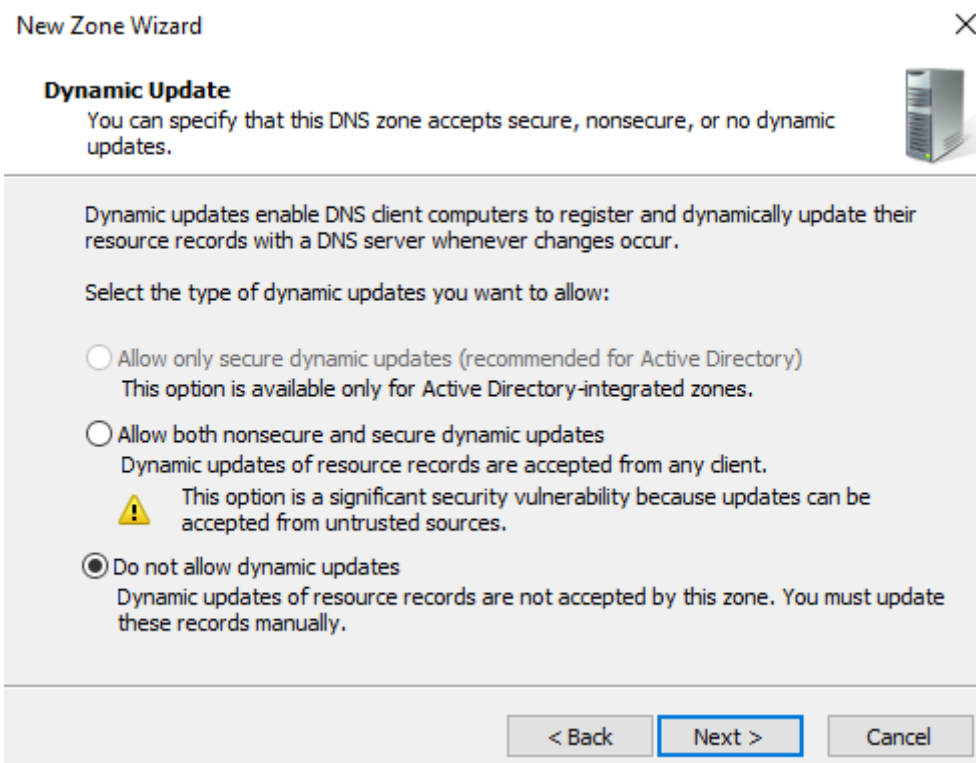
If you use a zero in the network ID, it will appear in the zone name. For example, network ID 10 would create zone 10.in-addr.arpa, and network ID 10.0 would create zone 0.10.in-addr.arpa.

☐ **Reverse lookup zone name:**  
100.168.192.in-addr.arpa

[< Back] [Next >] [Cancel]

3. Klicke in diesem Fenster einfach auf "Next" es sei den du möchtest den namen nach den Zahlen ändern.

4. In diesem Fenster belasse es bei diesen Einstellungen, da es eigentlich keinen Unterschied macht für




**New Zone Wizard** [Close]

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

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

Select the type of dynamic updates you want to allow:

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

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

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

[< Back] [Next >] [Cancel]

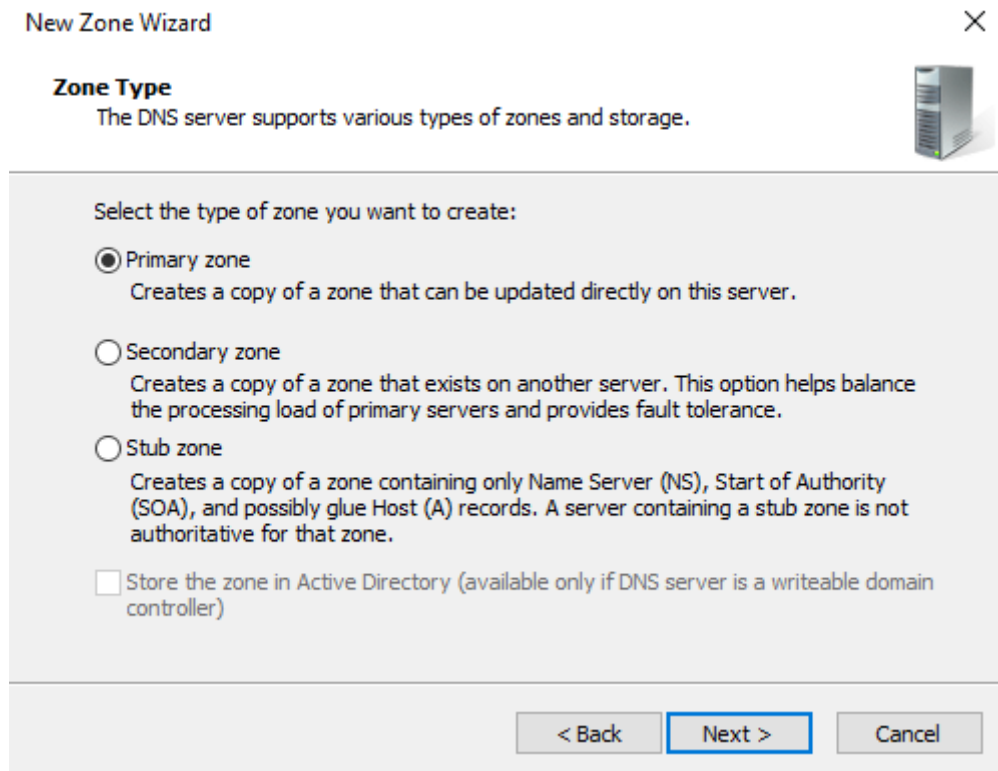
diese Übung.

5. Klicke, dann auf finished.

## Erstellung der Forward Lookupzone

1. Kreeire in dem Ordner Forward-Lookupzone, indem du einen Rechtsklick auf den Ordner machts und auf "New Zone" klickst.

2. Du siehst, dann ein Fenster bei dem du deinen Zonentypen auswählen kannst. Wähle hierbei den Typ



The screenshot shows the 'New Zone Wizard' window with the 'Zone Type' step selected. The window title is 'New Zone Wizard'. Below the title bar, there's a section titled 'Zone Type' with a server icon. The text says 'The DNS server supports various types of zones and storage.' Below this, it says 'Select the type of zone you want to create:'. There are three radio button options: 'Primary zone' (selected), 'Secondary zone', and 'Stub zone'. Each option has a description. At the bottom, there's a checkbox for 'Store the zone in Active Directory (available only if DNS server is a writeable domain controller)'. At the bottom right, there are three buttons: '< Back', 'Next >' (highlighted with a blue border), and 'Cancel'.

**New Zone Wizard**

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

Select the type of zone you want to create:

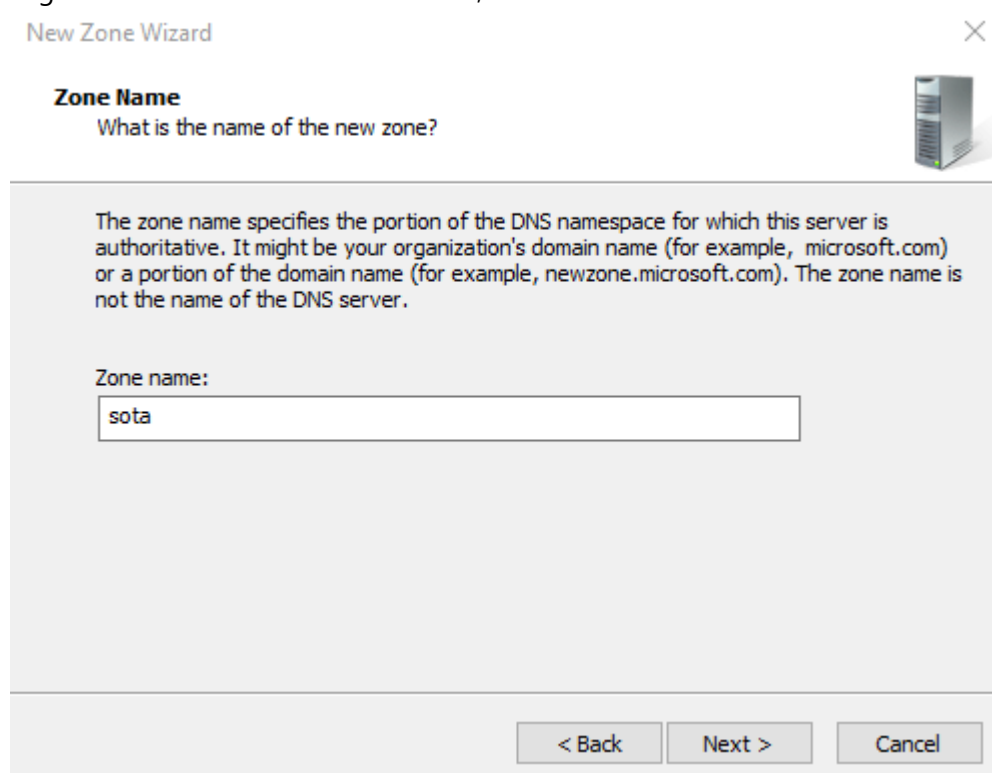
- ☒ **Primary zone**  
Creates a copy of a zone that can be updated directly on this server.
- ☐ **Secondary zone**  
Creates a copy of a zone that exists on another server. This option helps balance the processing load of primary servers and provides fault tolerance.
- ☐ **Stub zone**  
Creates a copy of a zone containing only Name Server (NS), Start of Authority (SOA), and possibly glue Host (A) records. A server containing a stub zone is not authoritative for that zone.

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

< Back   **Next >**   Cancel

"Primary zone".

3. Lege den Namen der neuen Zone fest, wähle hierfür am besten einen einfachen Namen.



The screenshot shows the 'New Zone Wizard' window with the 'Zone Name' step selected. The window title is 'New Zone Wizard'. Below the title bar, there's a section titled 'Zone Name' with a server icon. The text says 'What is the name of the new zone?'. Below this, there's a paragraph explaining the zone name. Below the paragraph, there's a text box labeled 'Zone name:' containing the text 'sota'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

**New Zone Wizard**

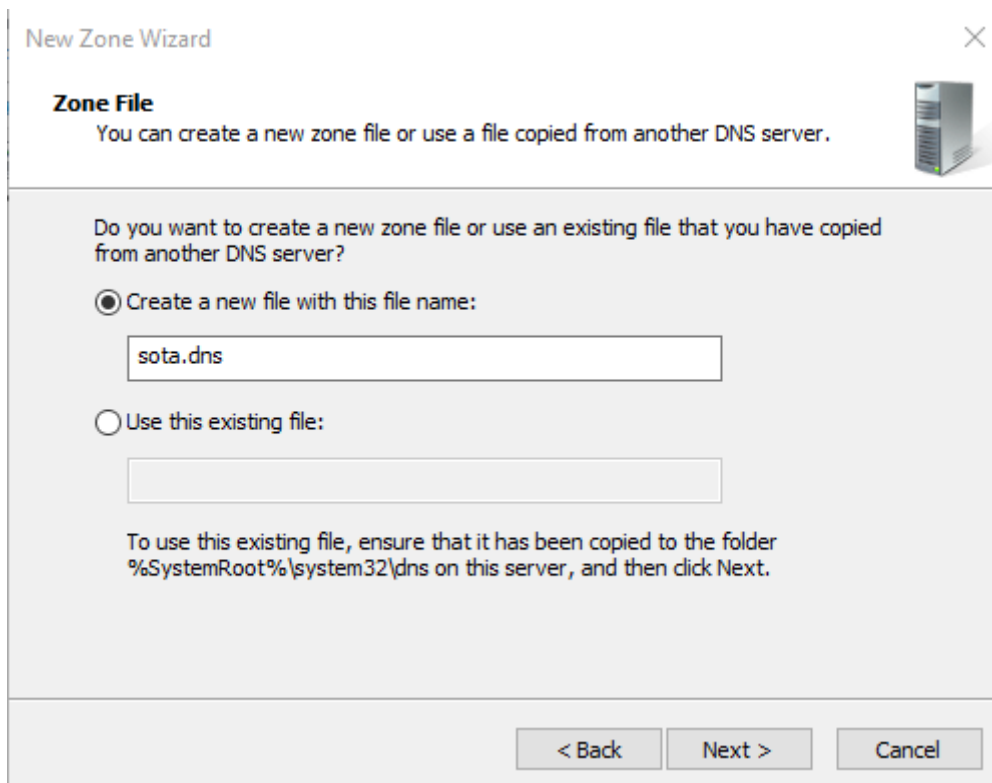
**Zone Name**  
What is the name of the new zone?

The zone name specifies the portion of the DNS namespace for which this server is authoritative. It might be your organization's domain name (for example, microsoft.com) or a portion of the domain name (for example, newzone.microsoft.com). The zone name is not the name of the DNS server.

Zone name:  
sota

< Back   Next >   Cancel

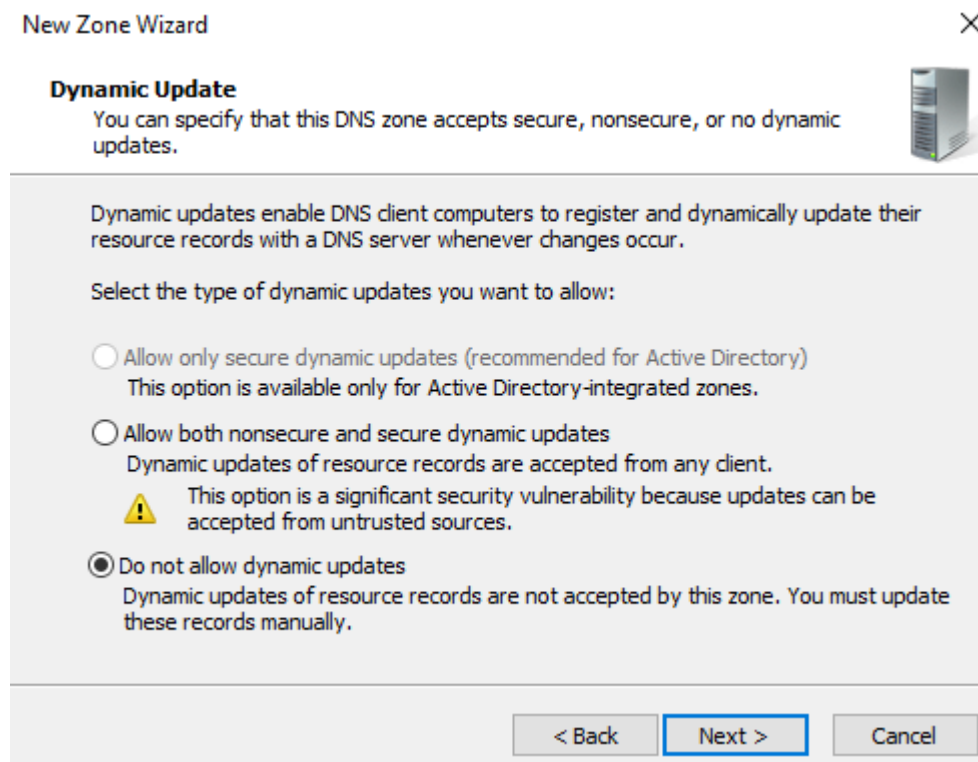
4. In diesem Fenster wird die neue DNS-File kreierte. Man kann auch in diesem Fenster eine schon



The screenshot shows the 'New Zone Wizard' dialog box, specifically the 'Zone File' step. The title bar says 'New Zone Wizard' with a close button. Below the title, it says 'Zone File' and 'You can create a new zone file or use a file copied from another DNS server.' There is a server icon in the top right. The main area asks: 'Do you want to create a new zone file or use an existing file that you have copied from another DNS server?'. There are two radio buttons: 'Create a new file with this file name:' (selected) and 'Use this existing file:'. The first option has a text box containing 'sota.dns'. The second option has an empty text box. Below the text boxes, it says: 'To use this existing file, ensure that it has been copied to the folder %SystemRoot%\system32\dns on this server, and then click Next.' At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

existierende.

5. In diesem Fenster kann man wie schon oben erwähnt das Dynamic Update festlegen, dass heisst wenn man etwas ändert im nachhinein, dass sich die anderen Optionen die mit dem veränderten Content im zusammenhang stehen auch mitverändern und nicht bleiben, dies ist jedoch für diese Übung überflüssig, deshalb kann man es hierbei bei "Do not allow dynamic updates" belassen.

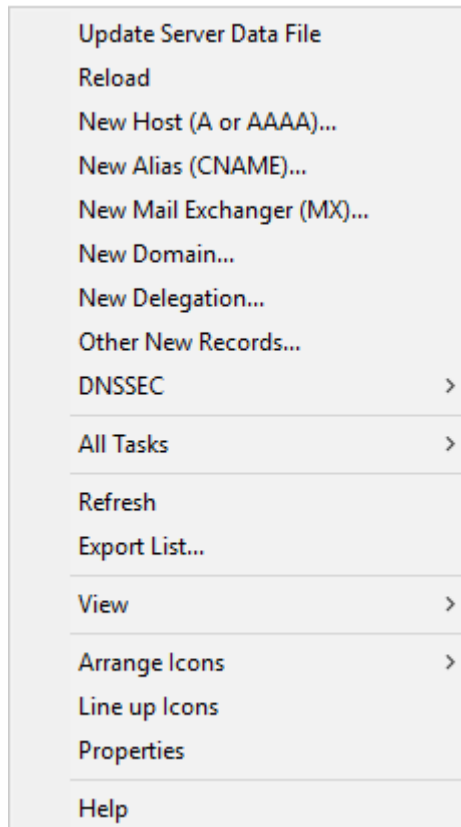


The screenshot shows the 'New Zone Wizard' dialog box, specifically the 'Dynamic Update' step. The title bar says 'New Zone Wizard' with a close button. Below the title, it says 'Dynamic Update' and 'You can specify that this DNS zone accepts secure, nonsecure, or no dynamic updates.' There is a server icon in the top right. The main area explains: 'Dynamic updates enable DNS client computers to register and dynamically update their resource records with a DNS server whenever changes occur.' It then asks: 'Select the type of dynamic updates you want to allow:'. There are three radio buttons: 'Allow only secure dynamic updates (recommended for Active Directory)' (disabled, with a note 'This option is available only for Active Directory-integrated zones.'), 'Allow both nonsecure and secure dynamic updates' (disabled, with a note 'Dynamic updates of resource records are accepted from any client.' and a warning icon 'This option is a significant security vulnerability because updates can be accepted from untrusted sources.'), and 'Do not allow dynamic updates' (selected, with a note 'Dynamic updates of resource records are not accepted by this zone. You must update these records manually.'). At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

6. Klicke, dann auf "Finish"

### Hinzufügen des Clients.

1. Öffne die erstellte "Forward-Lookupzone" und rechtsklicke irgendwo auf die weisse Fläche, und klicke



dann auf "New Host (A or AAAA)".

2. Trage in diesem Fenster, die IP-Adresse deines Clients ein und den Client Namen ein.

WS-PC-06 Properties ? X

Host (A)

Host (uses parent domain if left blank):

WS-PC-06

Fully qualified domain name (FQDN):

WS-PC-06.sota

IP address:

192.168.100.20

☐ Update associated pointer (PTR) record

OK Cancel Apply

## Adapter Settings für den Server

1. Versichere dich, dass dein Windows Server über die richtigen Adaptereinstellungen verfügt.

Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 100 . 2

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . .

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: 192 . 168 . 100 . 2

Alternate DNS server: . . .

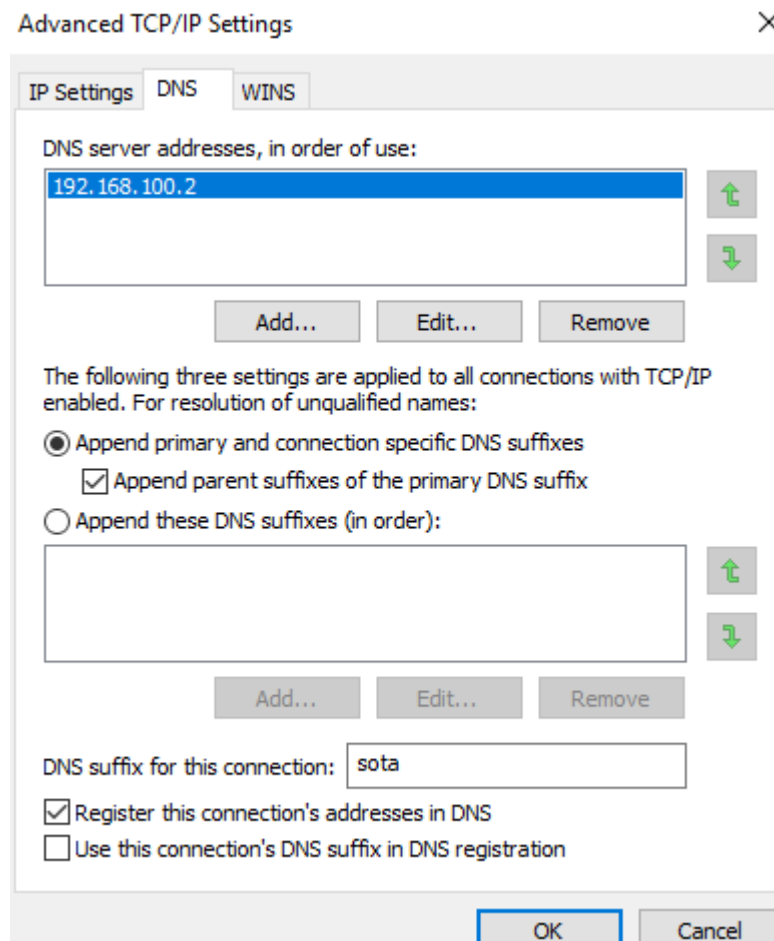
☐ Validate settings upon exit

Advanced...

OK Cancel

Falls du nicht über die richtigen Adaptereinstellungen verfügst träge diese hier ein. Deinen "Preferred DNS-Server" wirst du selbst sein also träge hier einfach deine IP-Adresse ein.

2. Klicke, dann auf "Advanced" und klicke auf oben auf den Tab "DNS" füge unten bei "DNS Suffix for this connection" den Namen deiner Forward-Lookupzone ein.



3. Schliesse, dann alle kürzlich geöffneten Fenster, indem du auf "OK" klickst.