## Add Roles & Configure Networking



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## Add Roles & Configure Networking



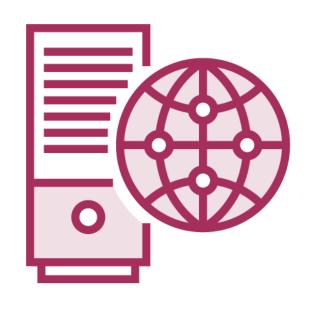
Topics in This Module:
Set up a Domain Controller
Configure Networking Settings
Set up RAS and WSUS Servers
Add Workstation Software



## Set up a Domain Controller



## GM-DC1 Setup Notes (Guest OS)



#### Install & configure ADDS

- Domain = globomantics.local
- Include DNS

Install the role with Server Manager

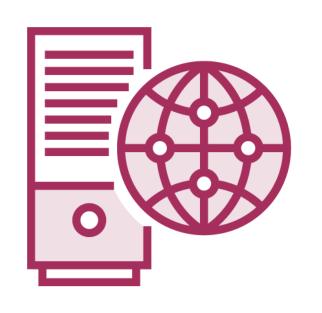
Then promote the computer to be a DC

Verify successful promotion in ADUC

Create a Denver site in ADSS



## Other GM-DC1 Configuration



#### **Install File and Storage Services**

...and create one or two file shares *e.g.* "Wallpaper" with JPGs

Install File Server Resource Manager

Create groups e.g. Marketing & Research

...and at least one user in each

Create a couple of OUs (ADUC or ADAC)

e.g. Engineering

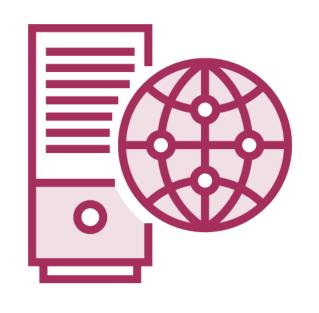
Configure DNS (Tools > DNS)

Set forwarding e.g. to 8.8.8.8



## Optional GM-DC1 Configuration

etc.



#### **Install Certificate Services (ADCS)**

EFS certificates, Data Recovery Agents

BitLocker Recovery Agents

VPN server and/or client certificates

Too big to cover in detail here, but...

...not necessary for most of the 70-697 demos

Good rainy day project



## Demo



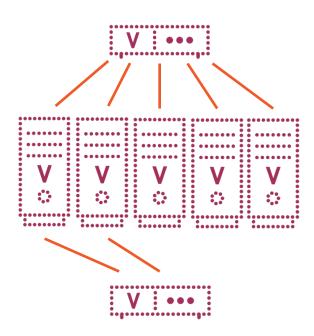
Set up a Domain Controller



## Configure Networking Settings



#### Virtual Switch Assignments



**GM-DC1: Denver** 

**GM-WS1: Denver** 

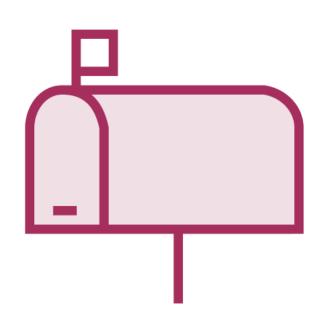
**GM-WS2: Denver** 

**GM-RAS1**: Denver, Internet (External)

**GM-WSUS:** Denver, Internet (External)



## GM-DC1 Network Settings



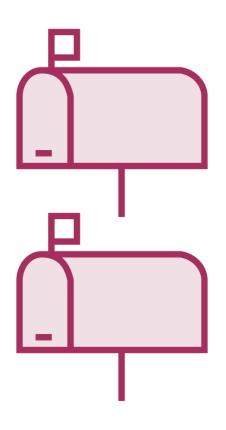
IP 172.20.1.50/16 (subnet mask 255.255.0.0)

Gateway 172.20.1.1 (GM-RAS1)

DNS 127.0.0.1 (loopback)



## GM-WSUS Network Settings



#### **Denver network:**

- IP 172.20.1.2/16 (subnet mask 255.255.0.0)
- No gateway
- DNS 172.20.1.50

#### Internet (external)

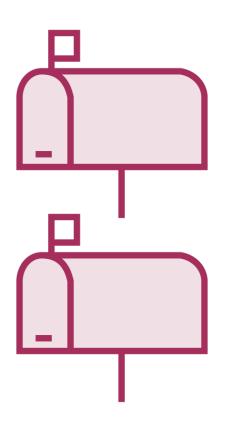
- IP settings, DNS automatically assigned
- Presuming DHCP on external network

#### Join the domain

Domain = globomantics.local



## GM-RAS1 Network Settings



#### **Denver network:**

- IP 172.20.1.1/16 (subnet mask 255.255.0.0)
- No gateway
- DNS 172.20.1.50

#### Internet (external):

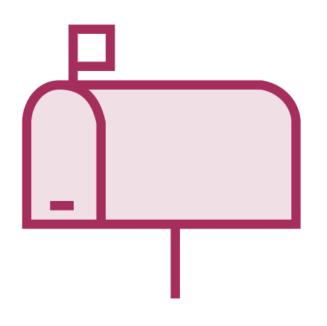
- IP settings, DNS automatically assigned
- Presuming DHCP on external network

#### Join the domain

Domain = globomantics.local



## GM-WS1 and GM-WS2 Network Settings



#### **GM-WS1**

- IP 172.20.1.99/16
- Gateway 172.20.1.1
- DNS 172.20.1.50

#### GM-WS2:

- Same except IP 172.20.1.60/16

#### Join the domain

- Domain = globomantics.local
- (leave domain if you want to experiment with HomeGroup networking)



## Set up RAS and WSUS Servers



## GM-RAS1 Setup Notes



**Install Remote Access role** 

Run "Routing and Remote Access" wizard

**Enable RAS1 as a NAT router** 

Turn on Network Discovery, File & Print Sharing

In the Remote Access course, you can use GM-RAS1 where the demos use GM-RDS



## GM-WSUS Setup Notes



Install "Windows Server Update Services" role in Server Manager

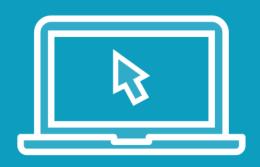
**Obtain updates from Microsoft** 

Set a light update schedule

Set a narrow list of products



### Demo



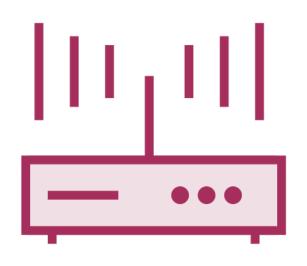
Set up a RAS Server as a NAT Router



#### Add Workstation Software



## Software to Download (GM-WS1 or -WS2)



Ensure GM-RAS1 & external network are online for Internet access

Windows Assessment & Deployment Kit

- Google "WADK," "Windows 10"

Microsoft Deployment Toolkit

Remote Server Administration Tools (RSAT)





You will need a Microsoft account for certain demos (*e.g.* OneDrive). Create a free test one:

https://account.microsoft.com/account

You can also use this test account to create trial subscriptions to Office 365, Microsoft Intune, *etc.* 





# That's It For This Module! Have fun with your Lab Environment!

