

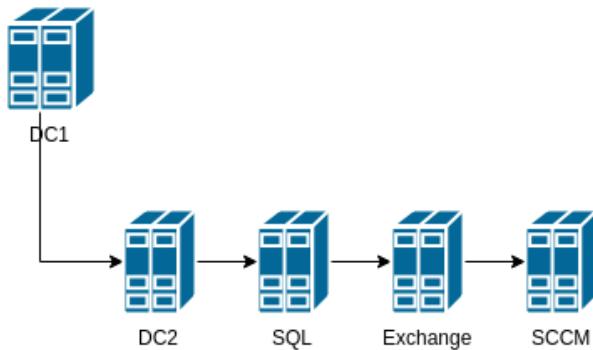
Windows Server: Exchange Server

Jens Du Four

2018 - 2019

1 Introductie

U bent IT-Consultant en krijgt de vraag om een voorstel te maken en te demonstreren van een Windowsomgeving. Deze omgeving moet bestaan uit het volgende . De cliënt wenst een redundante oplossing voor zijn servers. Dit vooral op de domeincontrollers. De cliënt wenst ook dat er een mailomgeving geïnstalleerd wordt en een omgeving die toelaat om op een efficiënte manier Windows toestellen te installeren en te deployen.



2 Server Requirements

1. DC1
 - (a) RAM: 2048 MB
 - (b) HDD: 50 GB
 - (c) Netwerkadapters: NAT en Internal Network (jenduf.gent)
 - i. NAT
 - ii. IP: 192.168.1.1
 - ii. SN: 255.255.255.0
 - (d) OS Version: Windows Server 2016

2. DC2

- (a) RAM: 2048 MB
- (b) HDD: 50 GB
- (c) Netwerkadapters: Internal Network (jenduf.gent)
 - i. IP: 192.168.1.2
 - ii. SN: 255.255.255.0
 - iii. DG: 192.168.1.1
- (d) OS Version: Windows Server 2016

3. SQL Server

- (a) RAM: 2048 MB
- (b) HDD: 50 GB
- (c) Netwerkadapters: Internal Network (jenduf.gent)
 - i. IP: 192.168.1.3
 - ii. SN: 255.255.255.0
 - iii. DG: 192.168.1.1
- (d) OS Version: Windows Server 2016
- (e) SQL Version: SQL Server 2013-2016

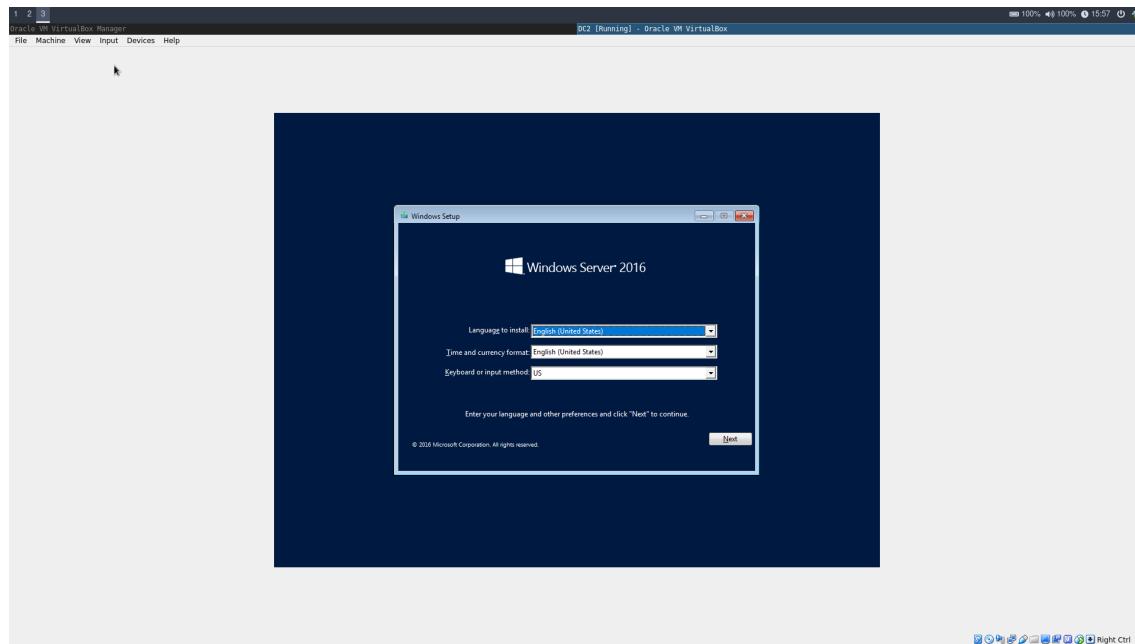
4. Exchange Server

- (a) RAM: 8096 MB
- (b) HDD: 100 GB
- (c) Netwerkadapters: Internal Network (jenduf.gent)
 - i. IP: 192.168.1.4
 - ii. SN: 255.255.255.0
 - iii. DG: 192.168.1.1
- (d) OS Version: Windows Server 2016
- (e) Exchange Version: Exchange Server 2013-2016

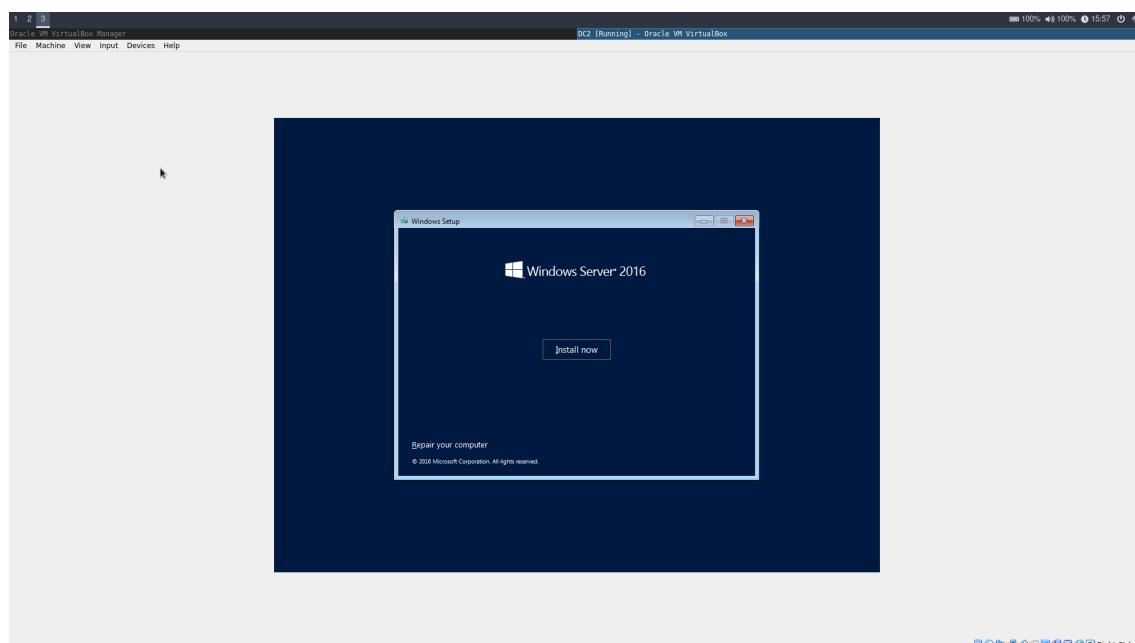
5. SCCM Server

- (a) RAM: 8089 MB
- (b) HDD: 100 GB
- (c) Netwerkadapters: Internal Network (jenduf.gent)
 - i. IP: 192.168.1.5
 - ii. SN: 255.255.255.0
 - iii. DG: 192.168.1.1
- (d) OS Version: Windows Server 2016
- (e) OS Version: Windows Deployment Server 2012

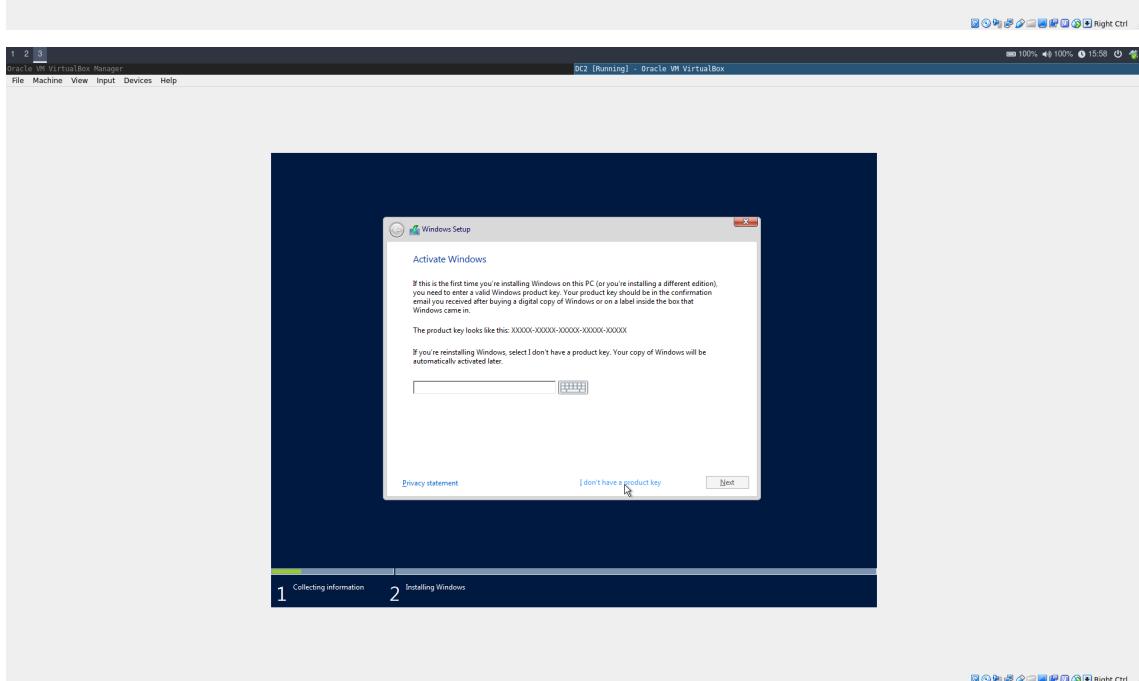
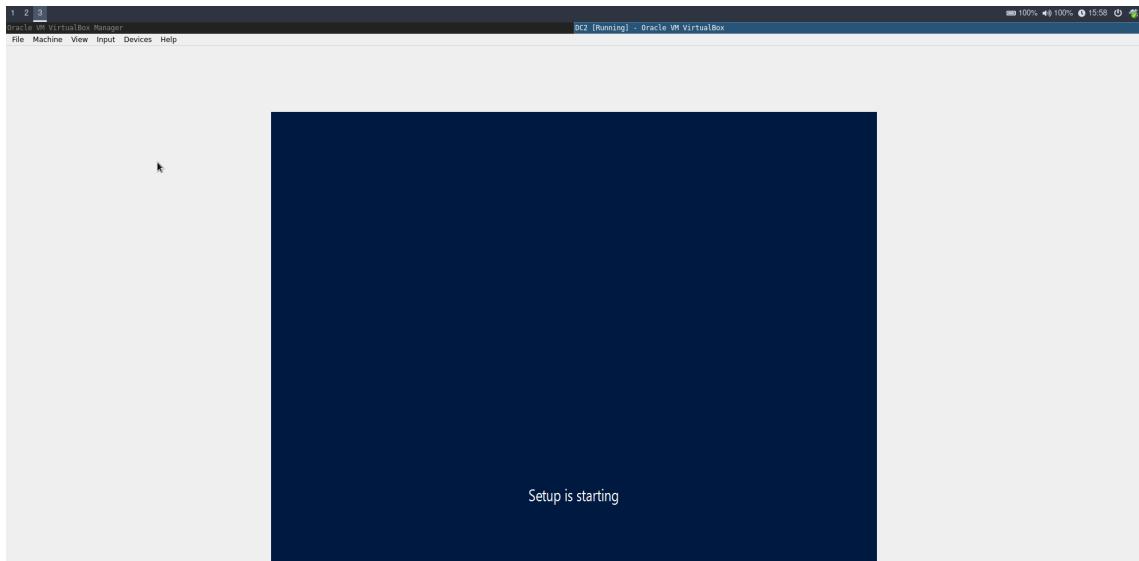
3 Windows Server Installatie



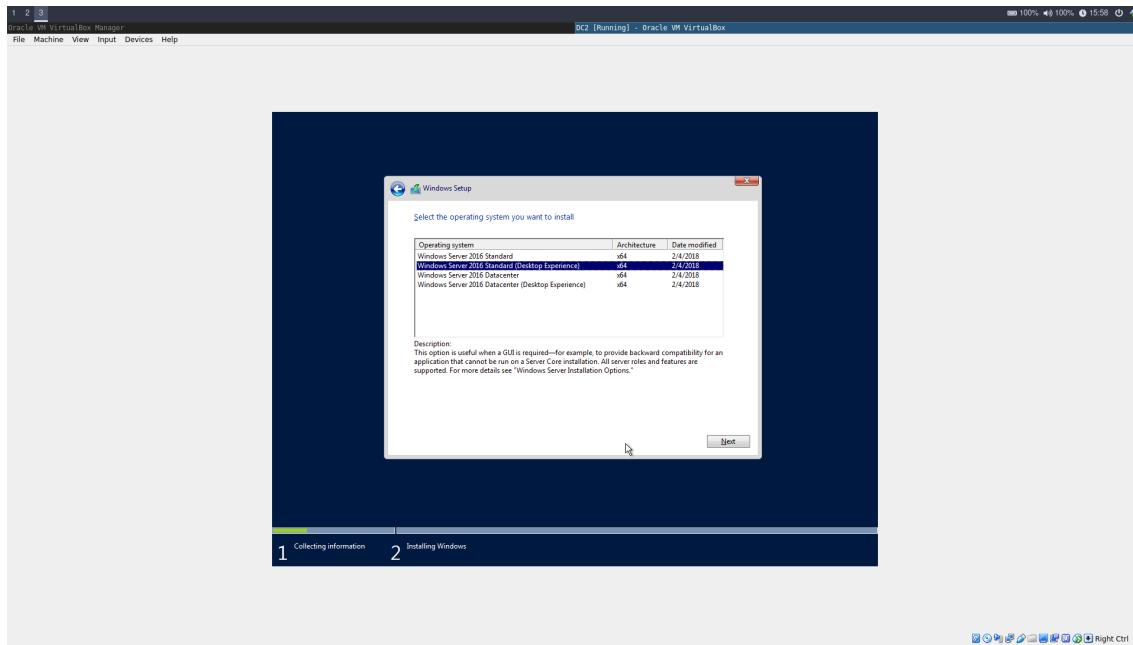
Selecteer de gewenste taalinstellingen.



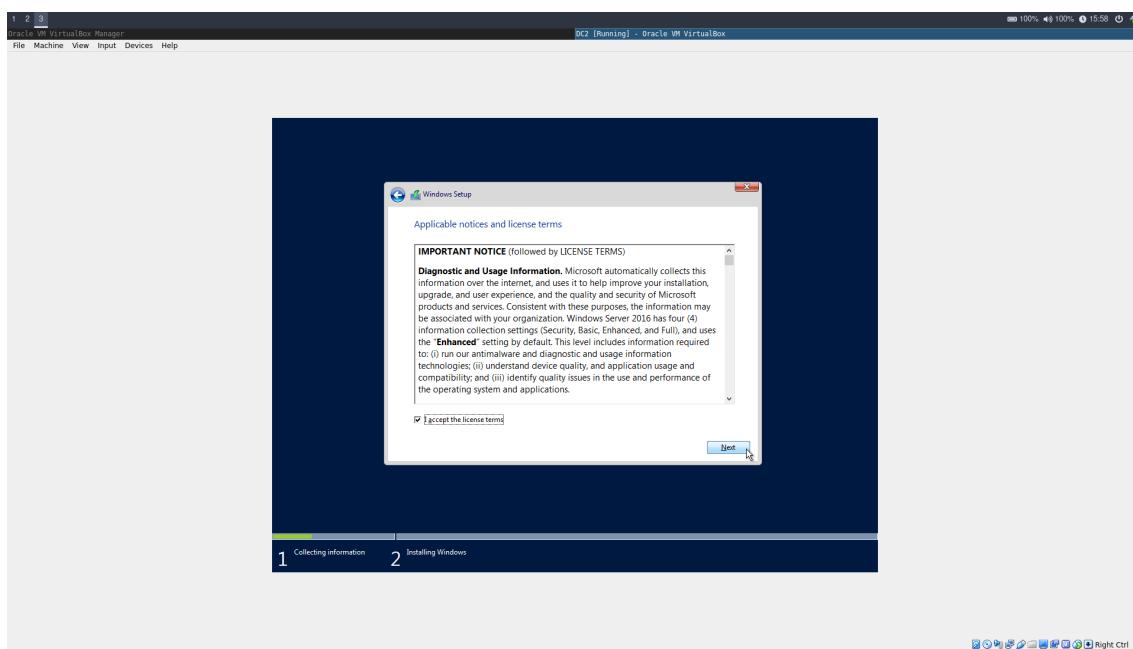
Start de installatie.



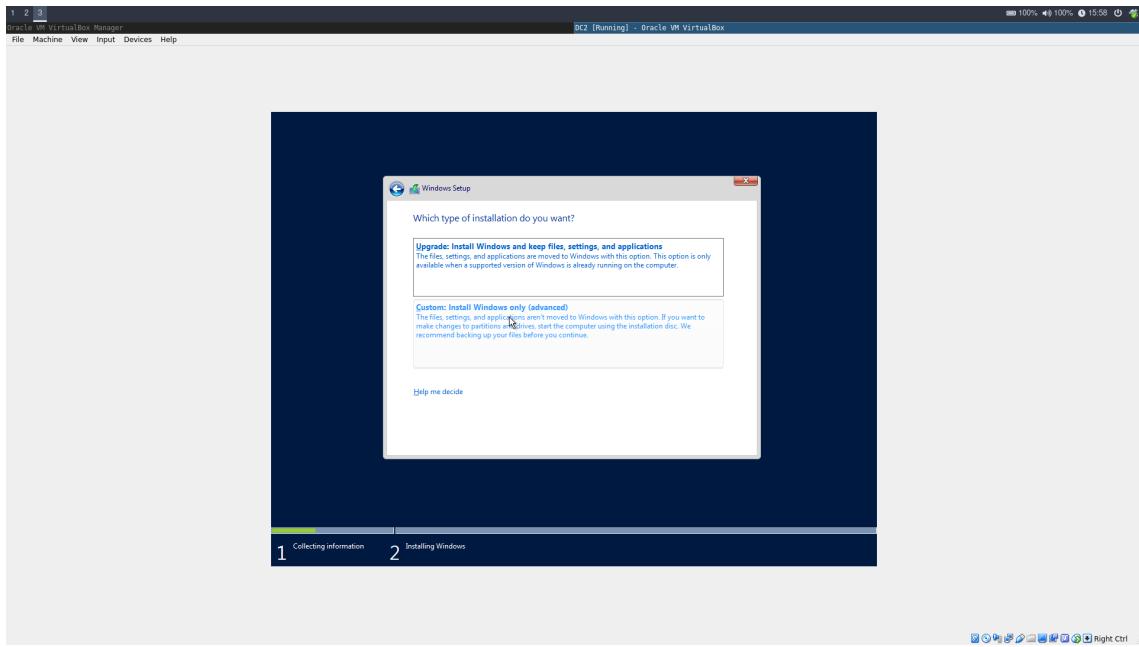
Selecteer "I don't have a product key".



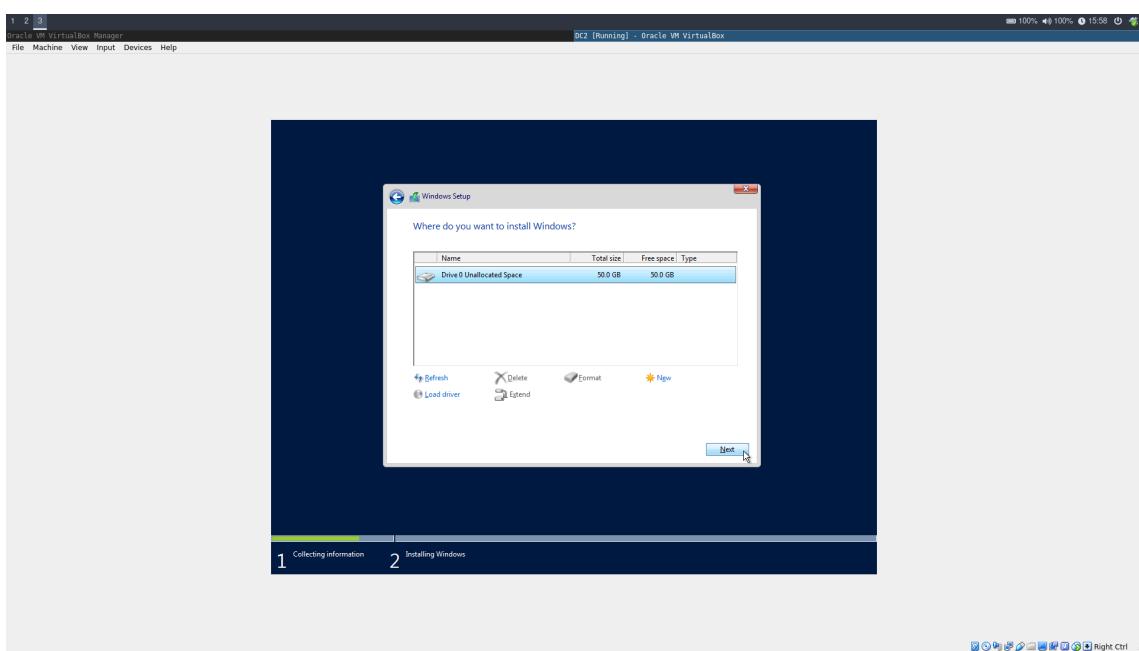
Selecteer "Windows Server 2016 Standard (Desktop Experience)".



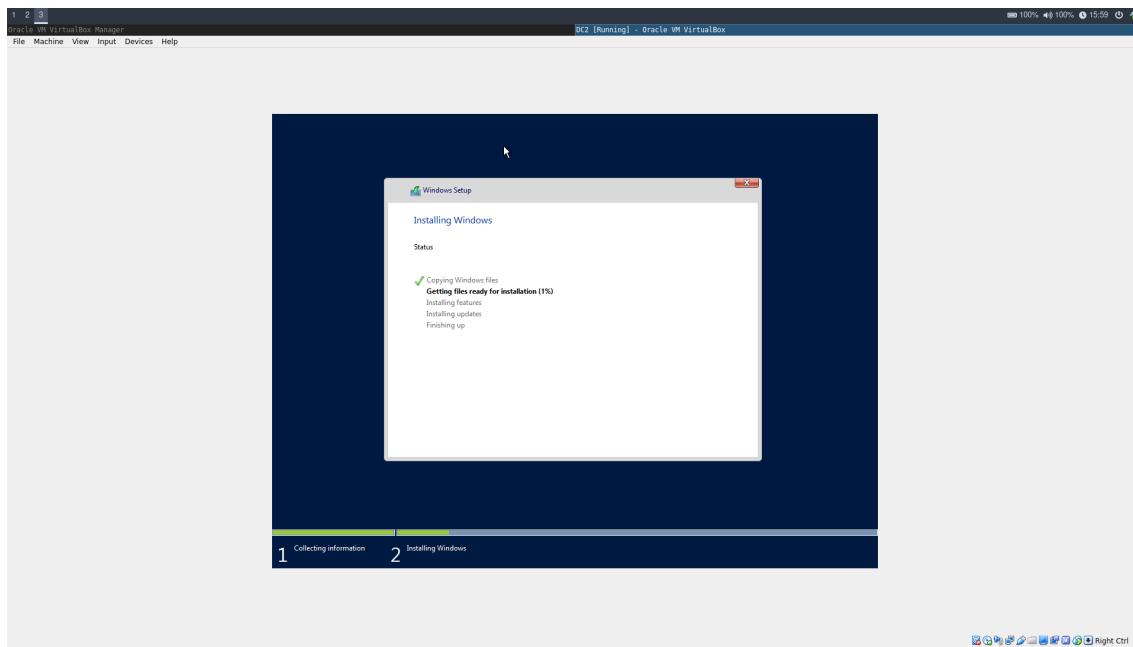
Ga akkoord met de gebruiksvoorwaarden.



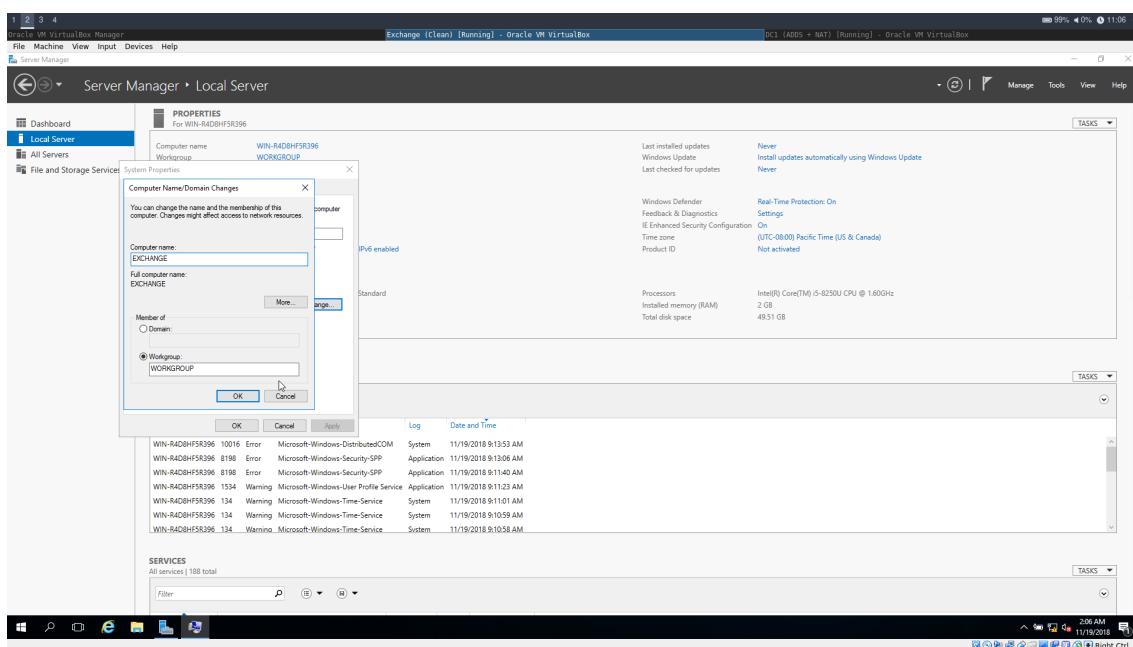
Selecteer "Costum: Install Windows only (Advanced)".



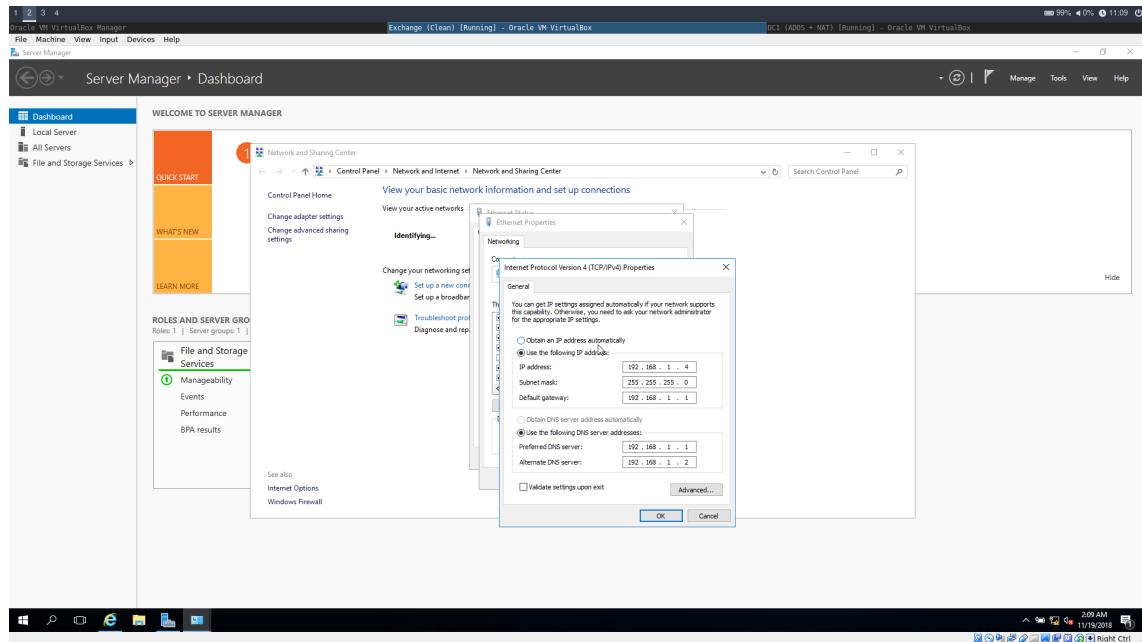
Ga verder.



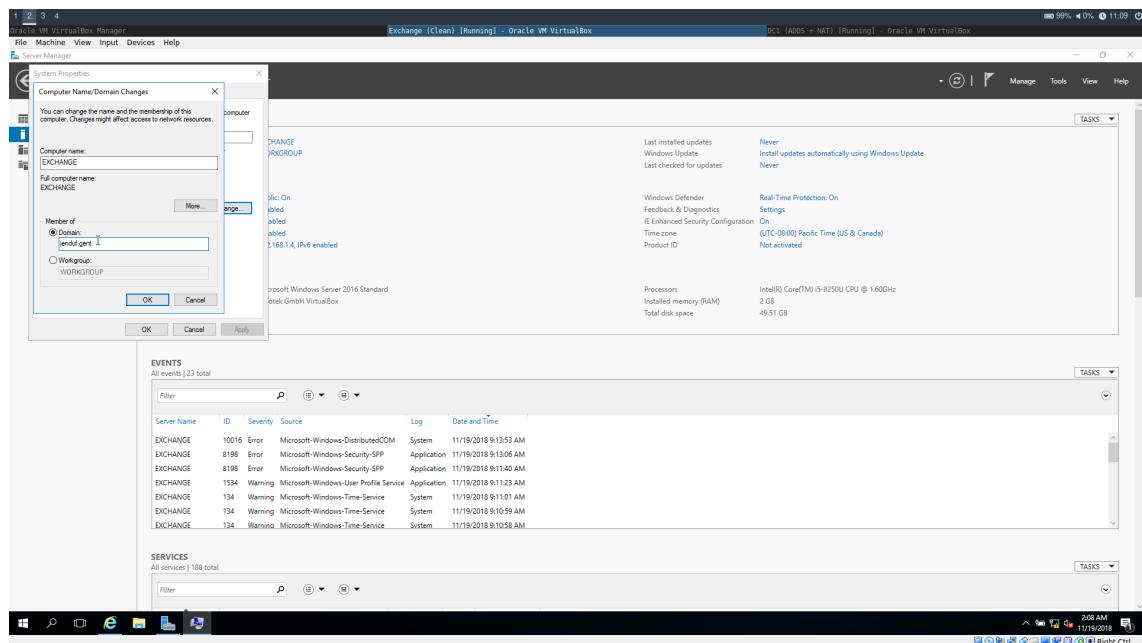
3.1 Server Hernoemen



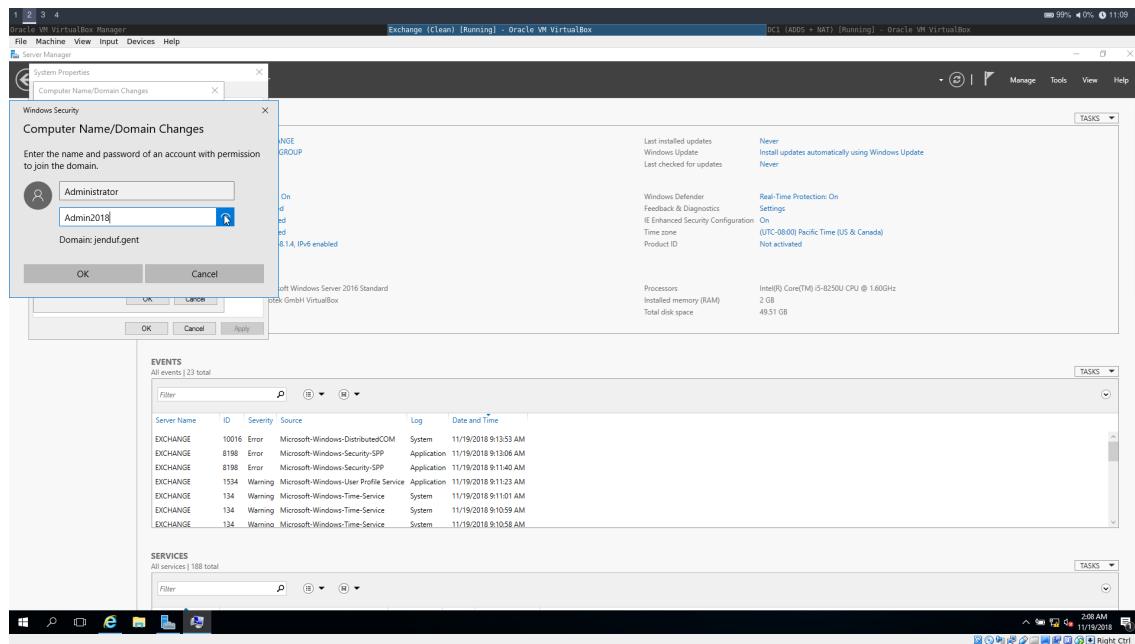
3.2 IP Instellingen



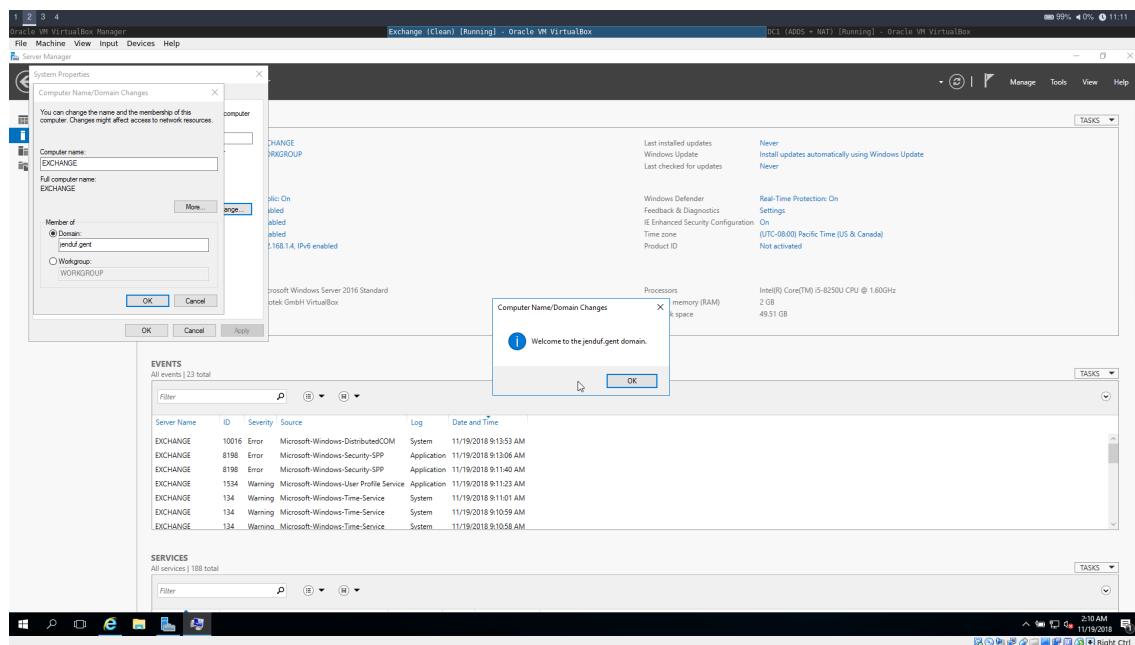
3.3 Toevoegen aan het domein



Geef als domein jenduf.gent in.



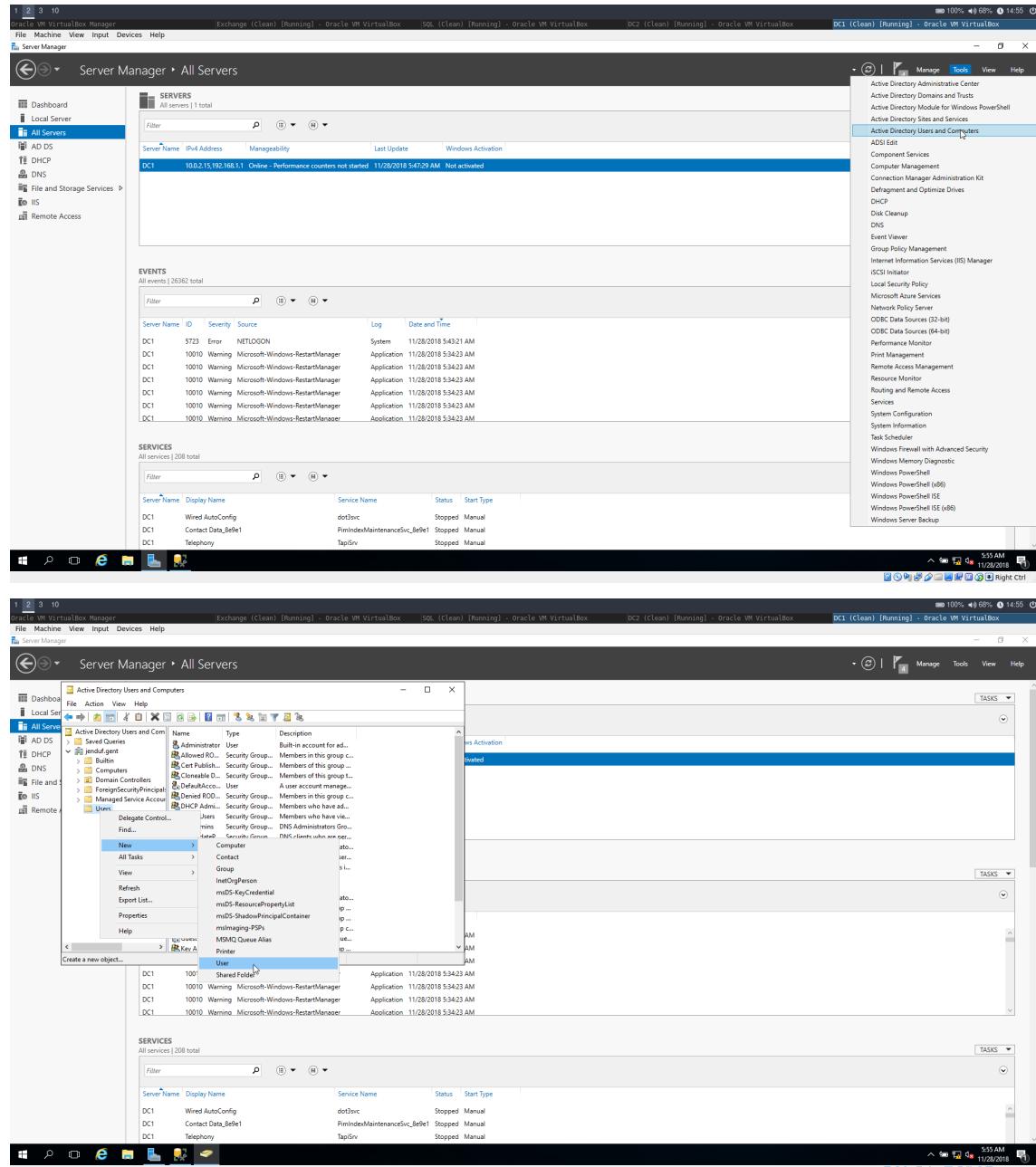
Geef gebruikersnaam "Administrator" in en paswoord "Admin2018".



De connectie is geslaagd bij het weergeven van volgende boodschap.

4 Installatie Exchange Server

4.1 Aanmaken Exchange-user op DC1



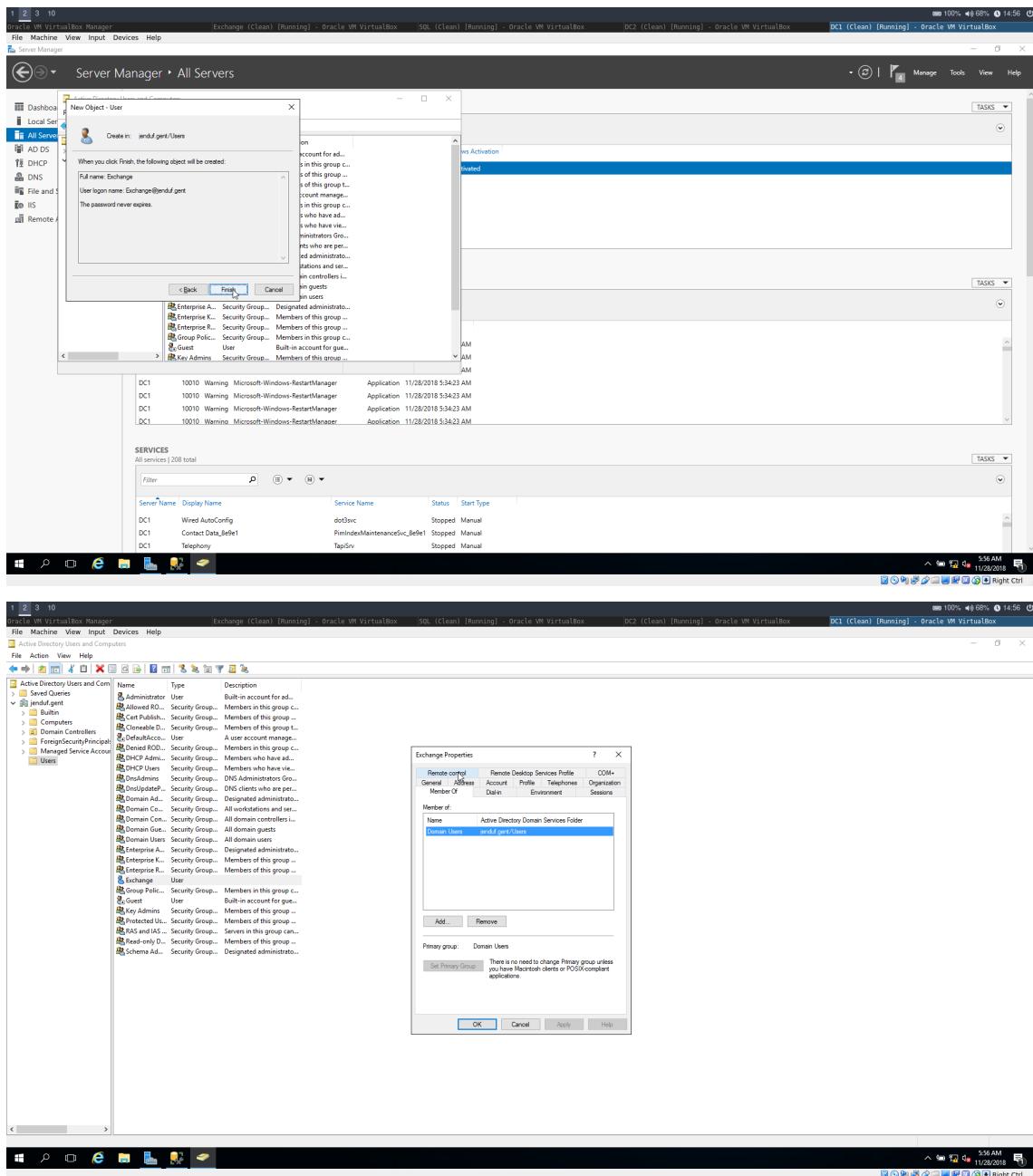
The image shows two screenshots of a Windows Server 2012 R2 interface, likely from a VM named DC1.

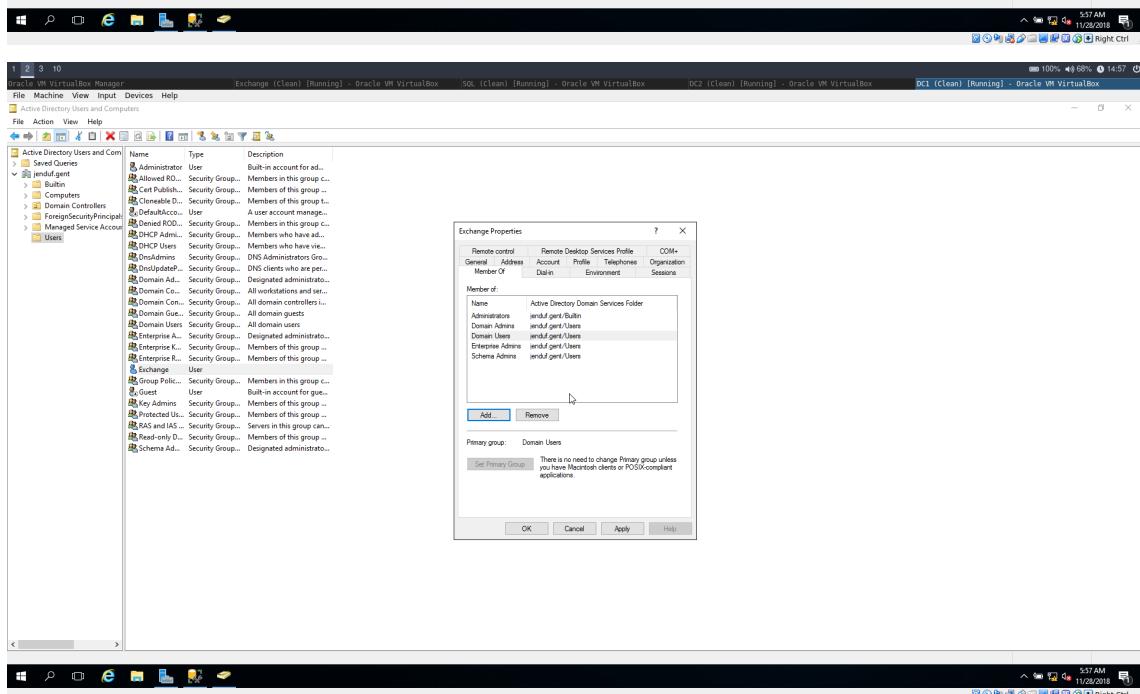
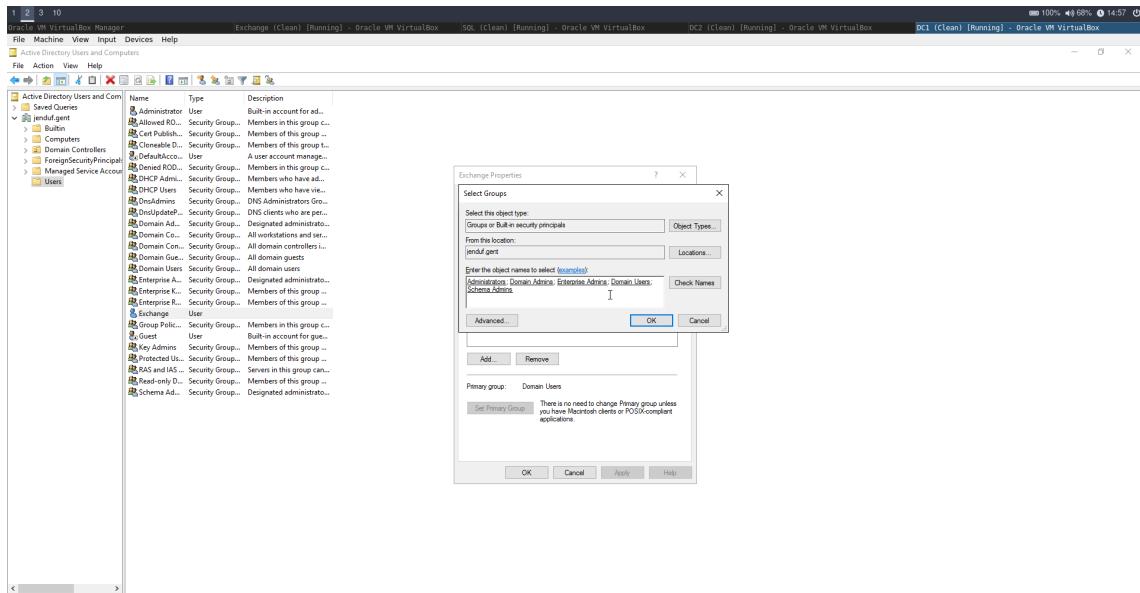
Screenshot 1 (Top):

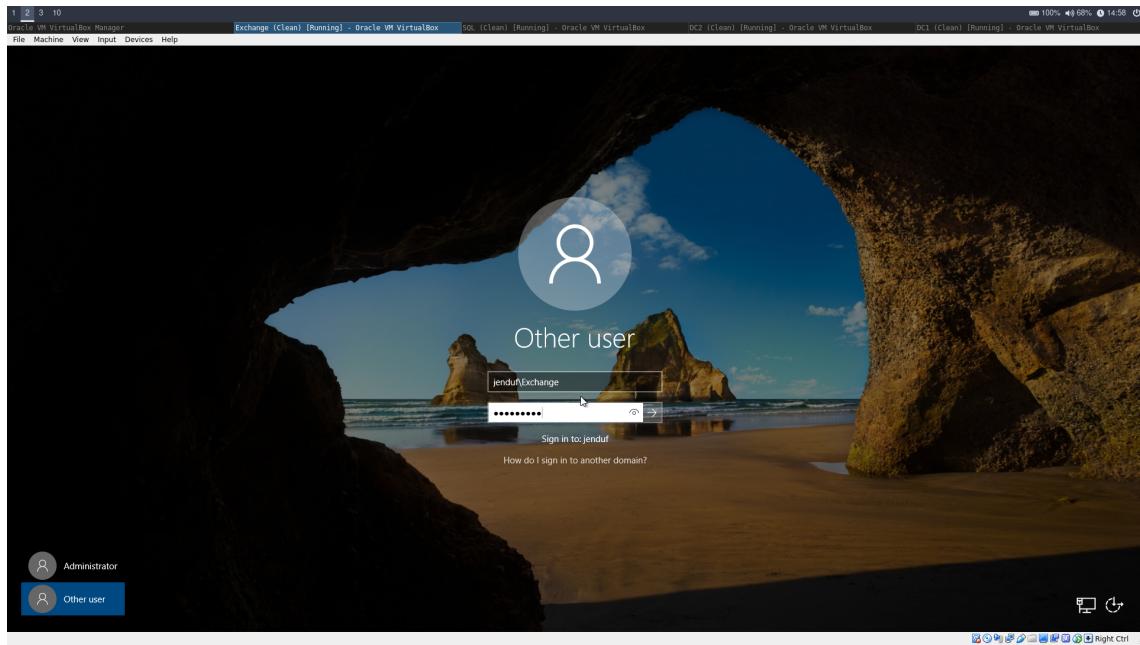
- Server Manager - All Servers:** A user is creating a new object (User). The 'Create in' dropdown is set to 'sendlf.gent/Users'. The 'First name' field contains 'Exchange' and the 'Last name' field contains 'Exchange'. The 'Full name' field is also 'Exchange'. The 'User logon name' dropdown is set to 'Exchange' (pre-Windows 2000). The 'User logon name [pre-Windows 2000]' dropdown is also set to 'Exchange'. Below these fields are several checkboxes for security and account options, including 'User must change password at next login', 'User cannot change password', 'Password never expires', and 'Account is disabled'. The 'Next >' button is highlighted.
- Services:** A table showing system services. All services are stopped and set to Manual start type. Services listed include dot3svc, PrintIndexMaintenanceSvc_BeBe1, and TapSrv.

Screenshot 2 (Bottom):

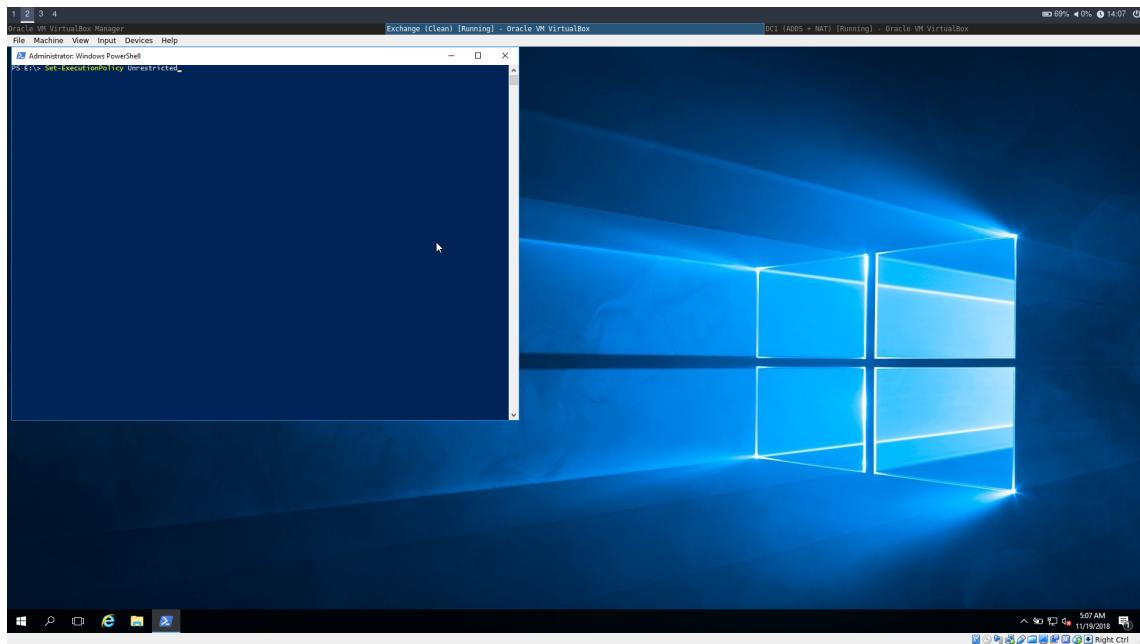
- Server Manager - All Servers:** The same user creation process is shown, but the 'Password' and 'Confirm password' fields now contain '*****'. The checkboxes for account options remain checked. The 'Next >' button is highlighted.
- Services:** The same service status table is displayed, showing all services stopped and set to Manual start type.



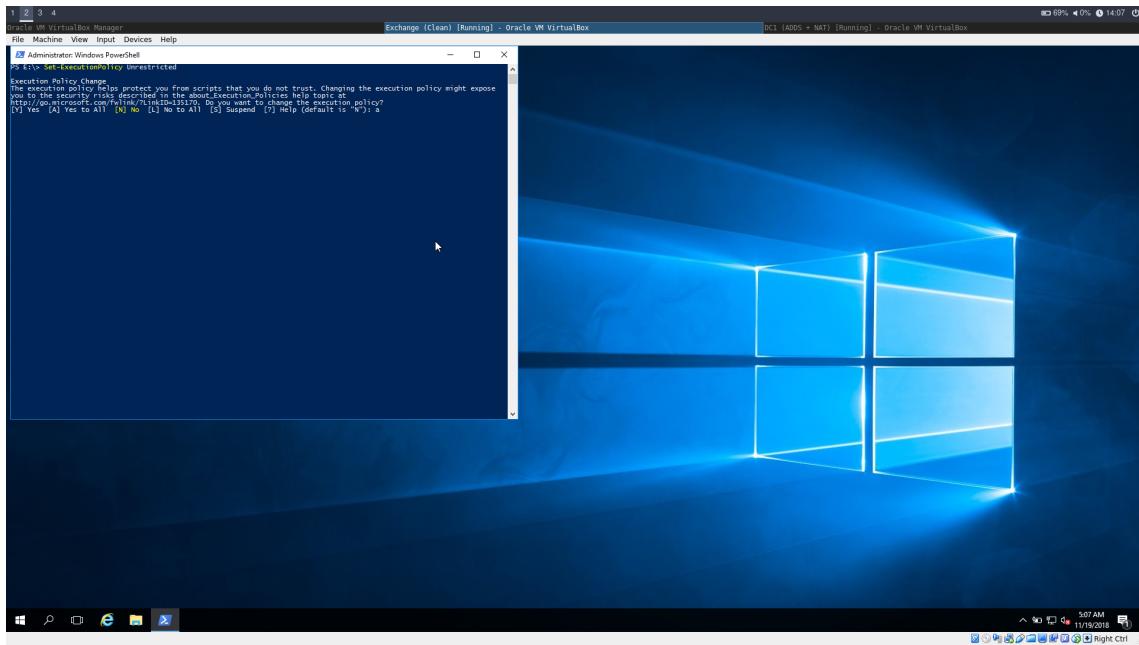




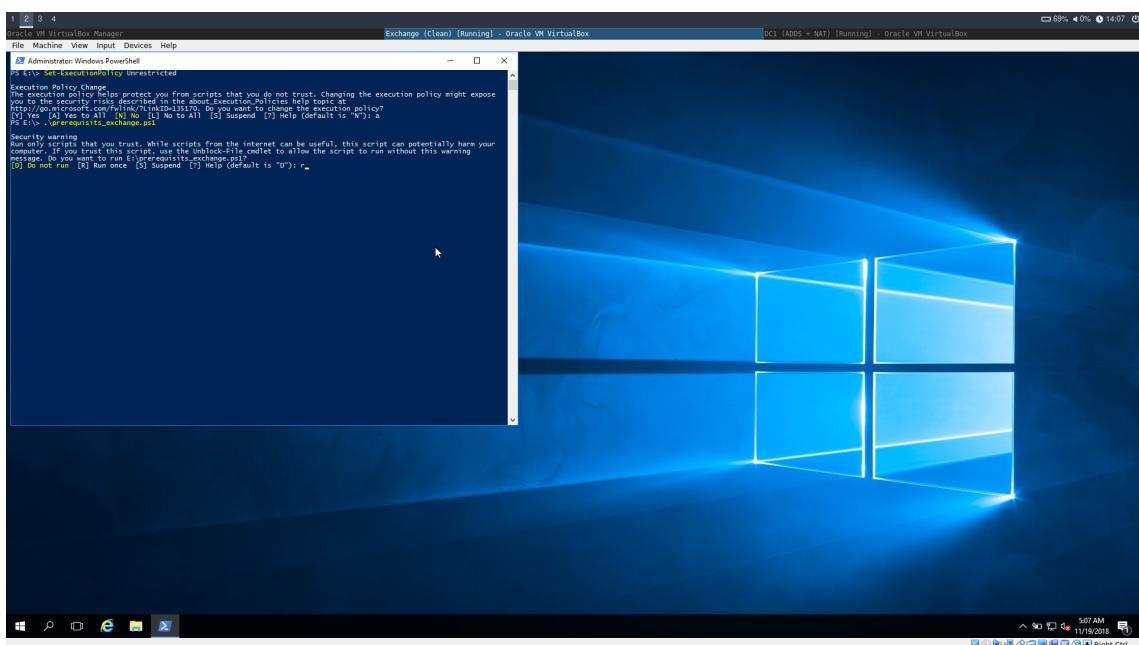
4.2 Prerequisites



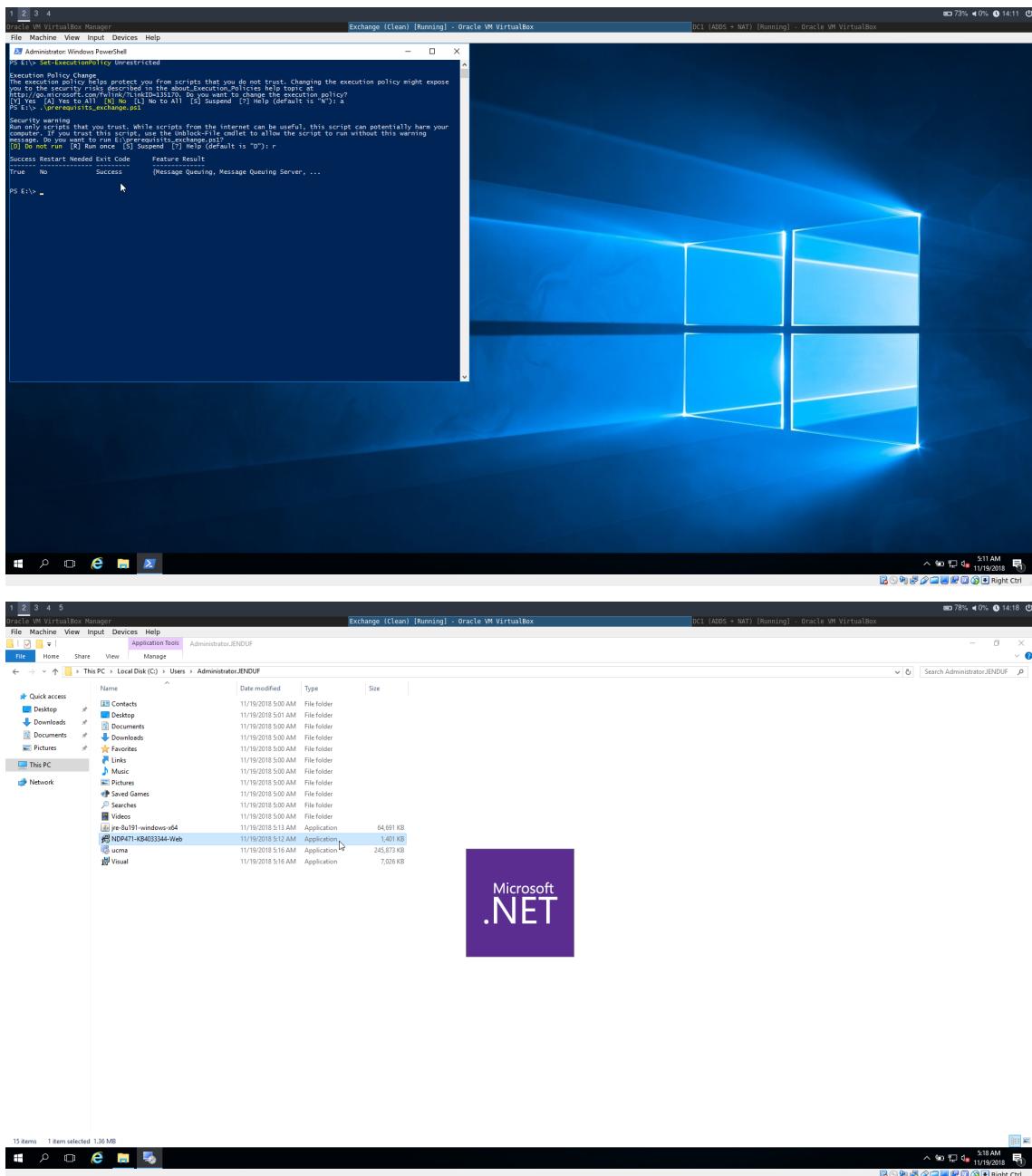
Stel het "ExecutionPolicy" op "Unrestricted".

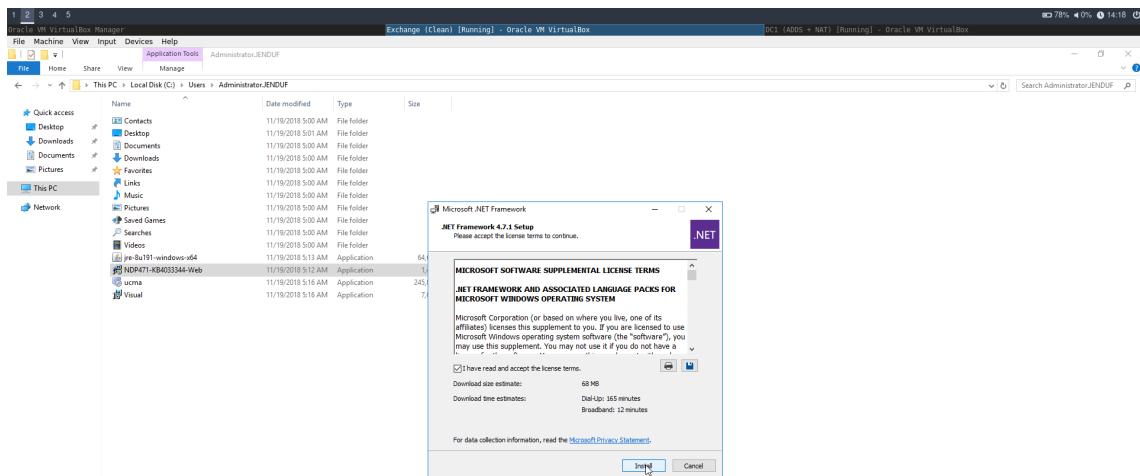


Selecteer "Yes to All".

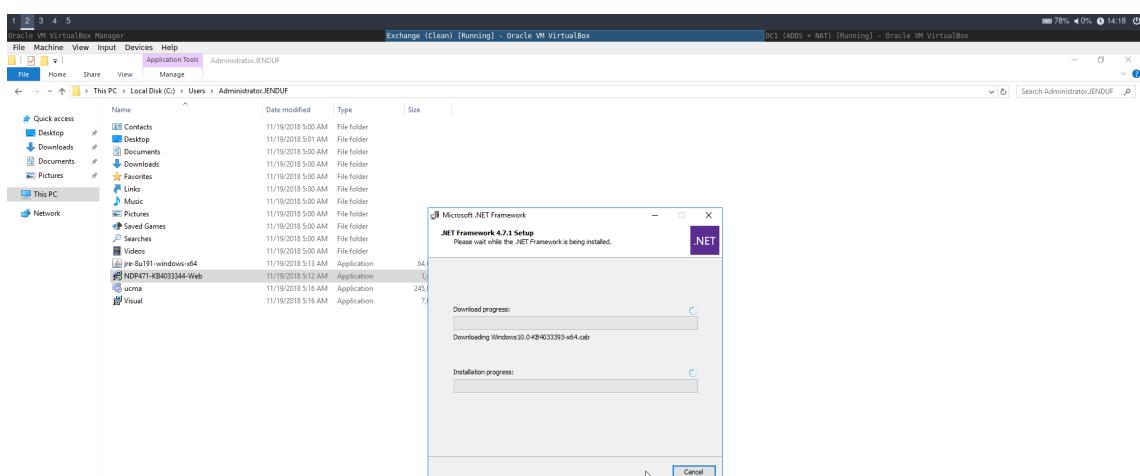


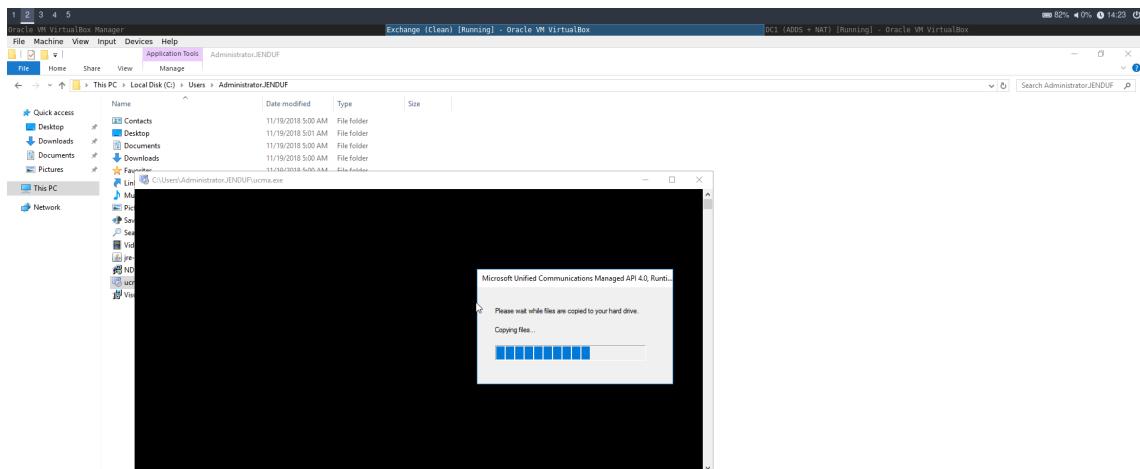
Voer het script uit en selecteer "Run once".



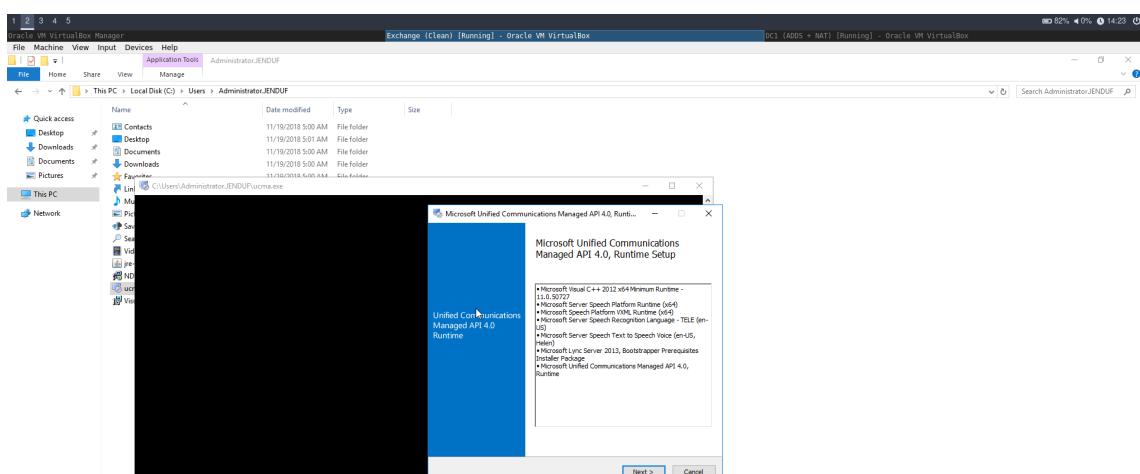


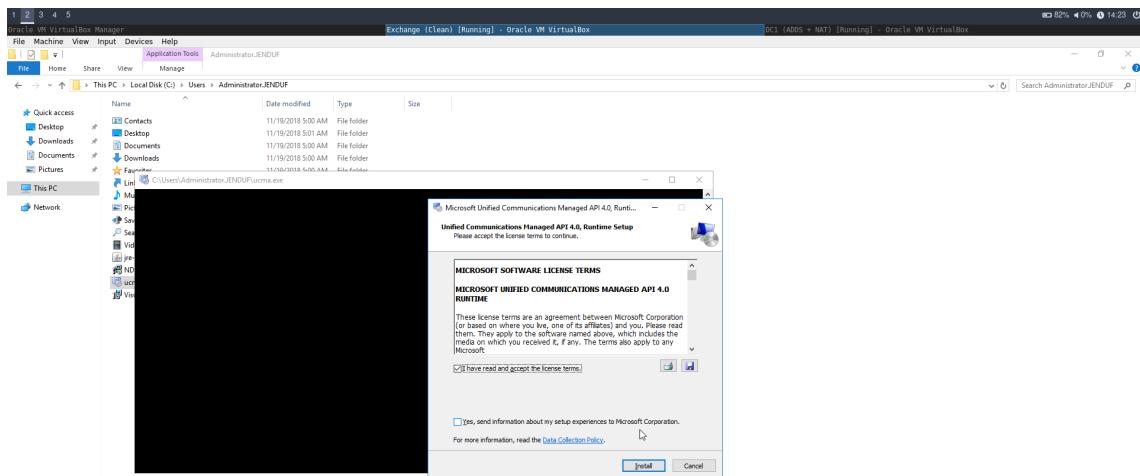
Ga akkoord met de voorwaarden en druk op "Install".



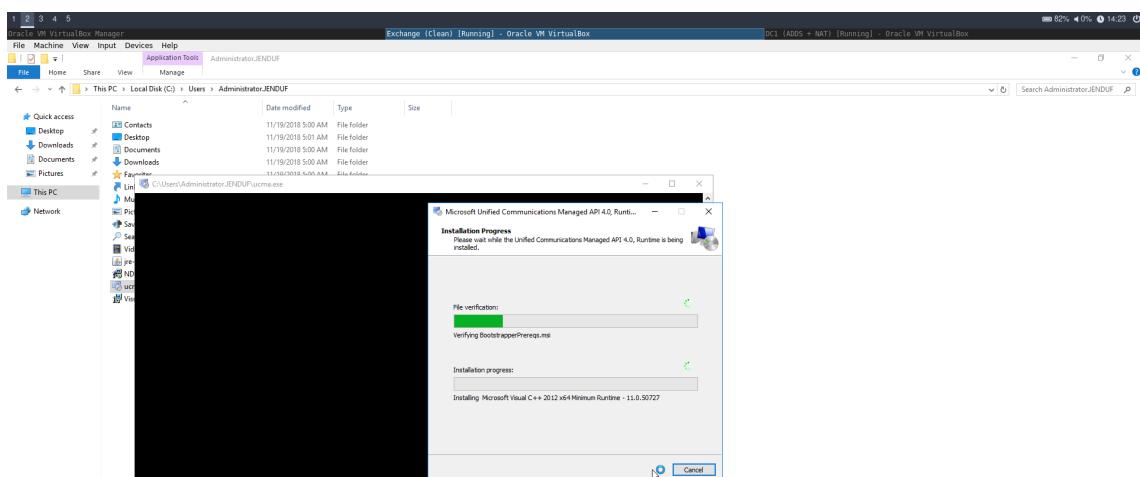


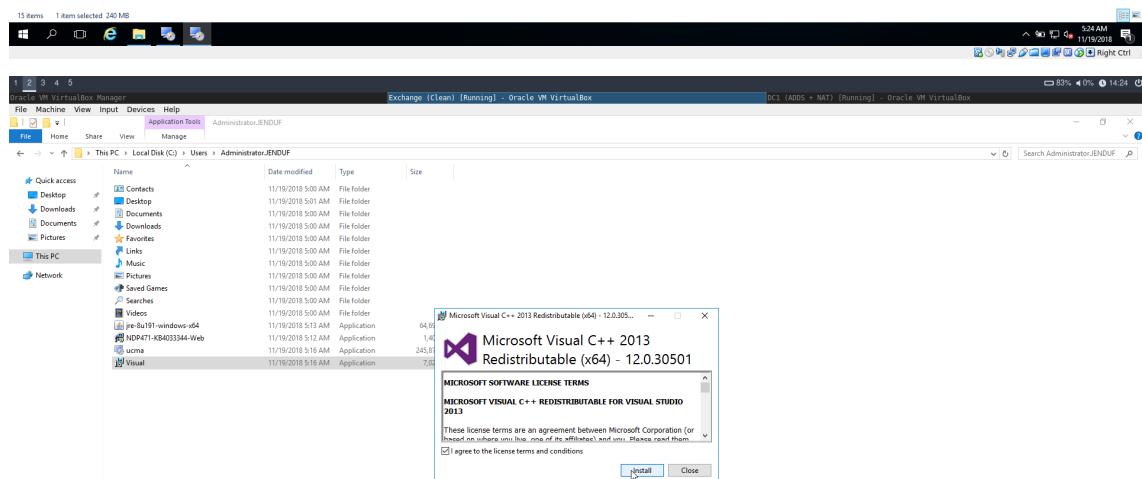
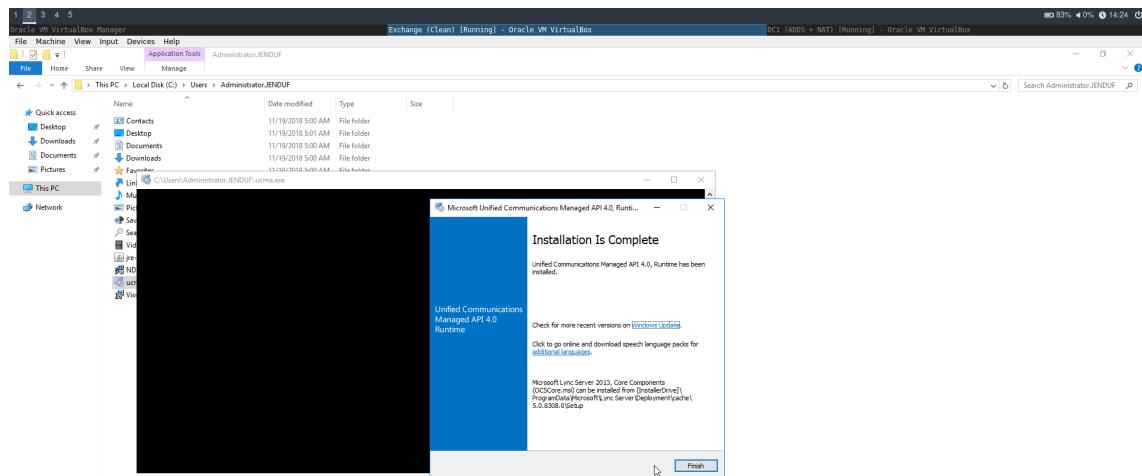
Installeer de "Microsoft Unified Communications Managed API".





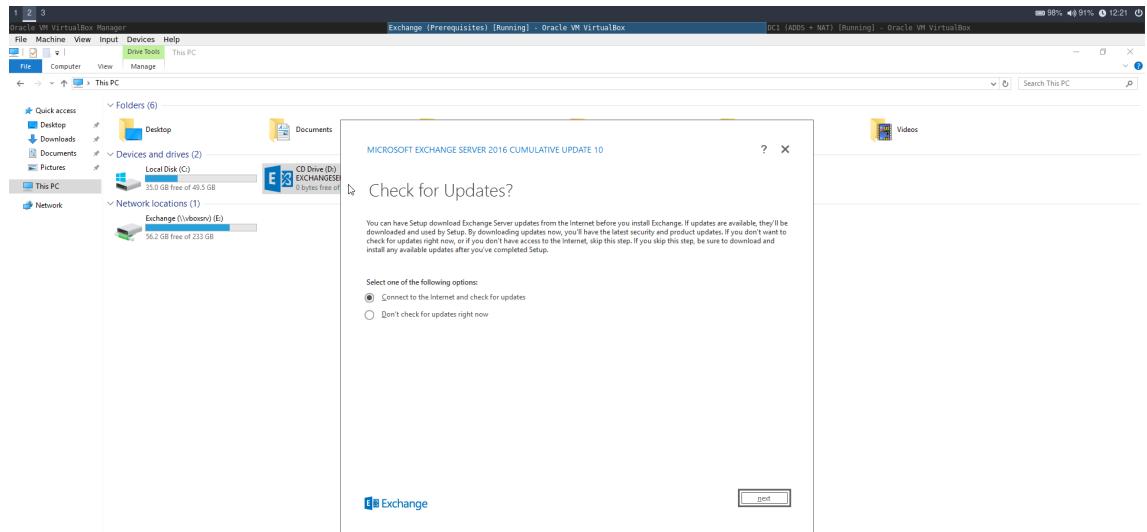
Ga akkoord met de licentievoorwaarden en installeer.



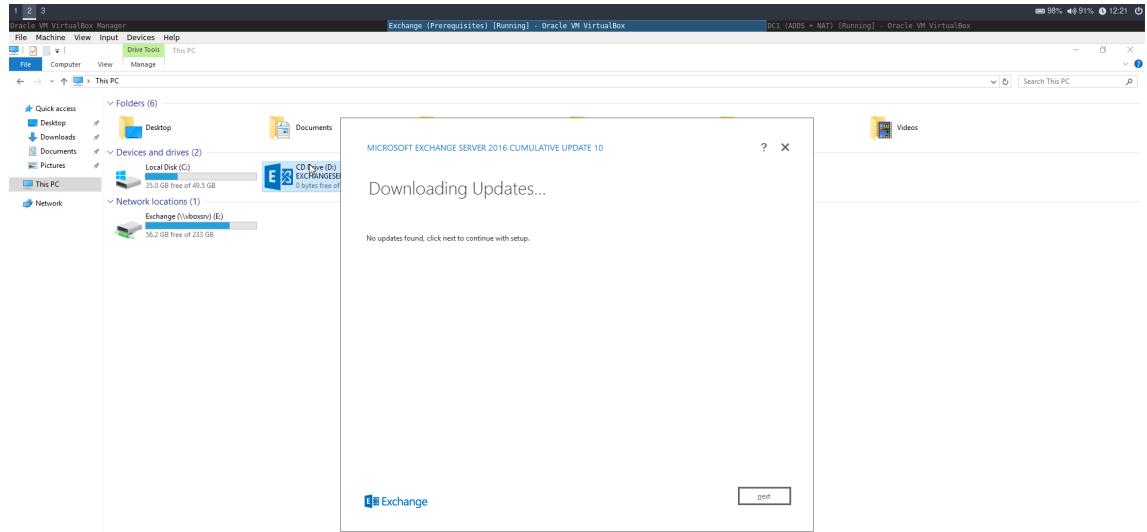


Installeer "Microsoft Visual C++ 2013".

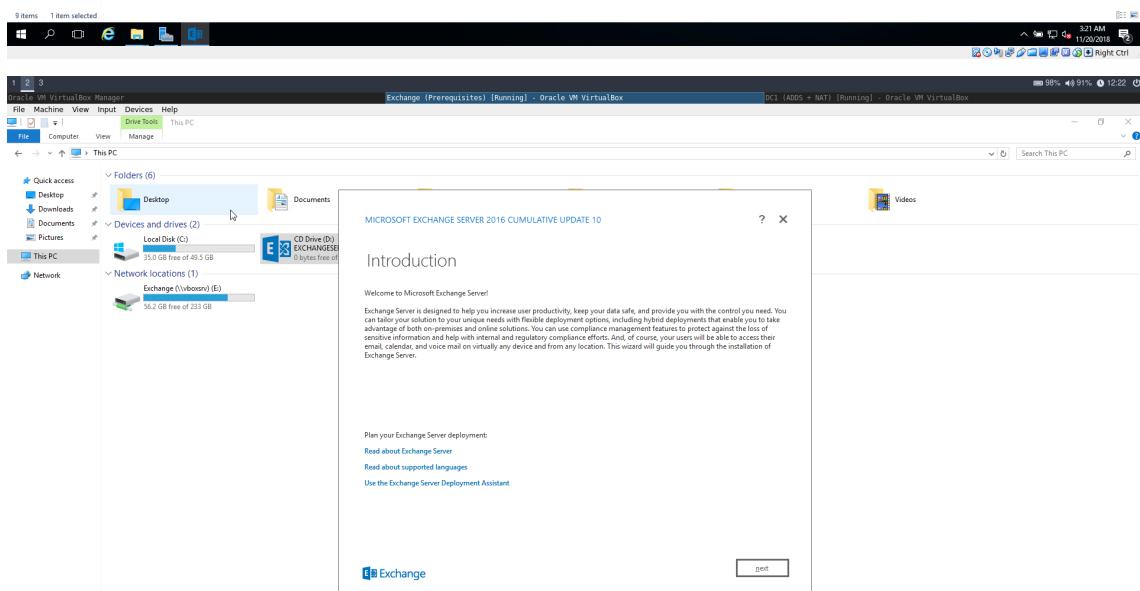
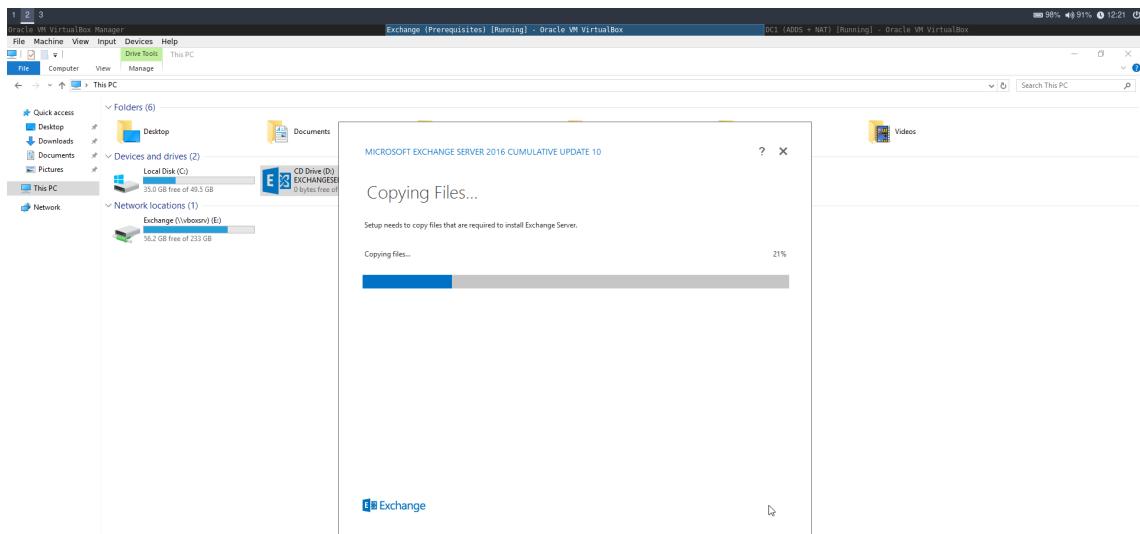
4.3 Installatie Exchange Server

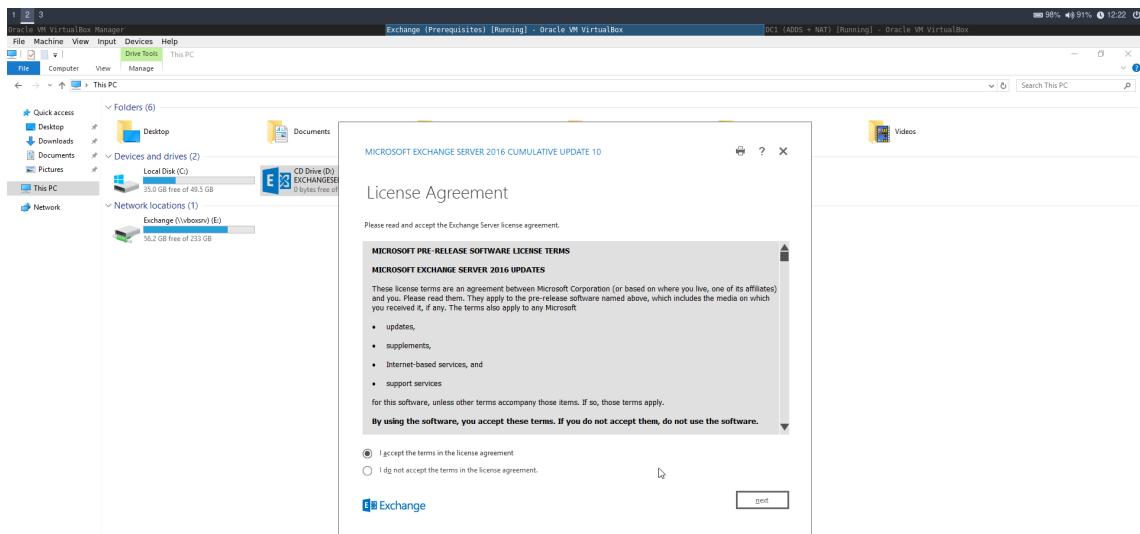


Zeok naar updates voor de start van de installatie.

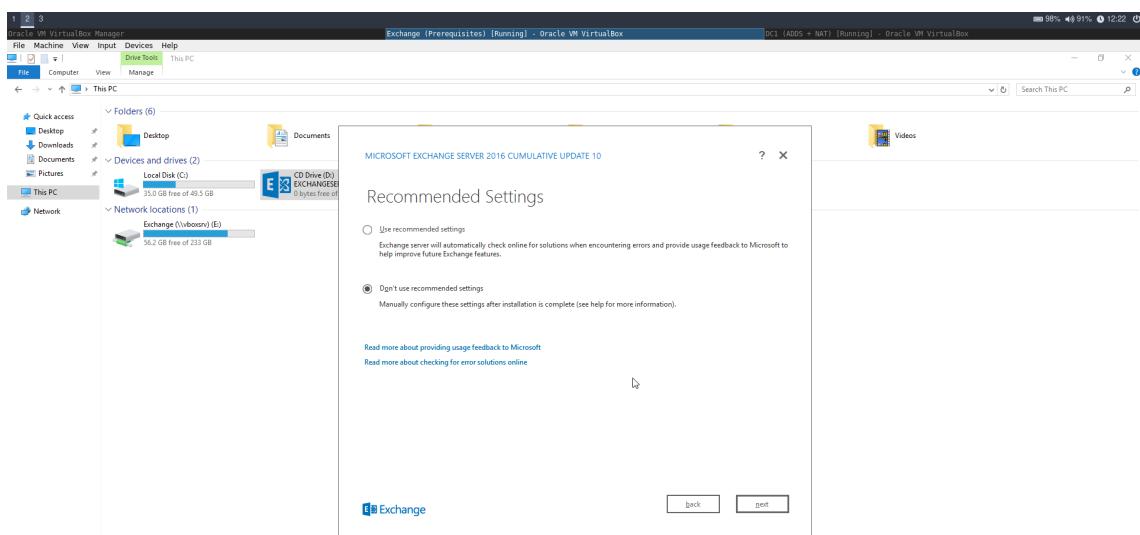


Ga verder na het zoeken naar updates.

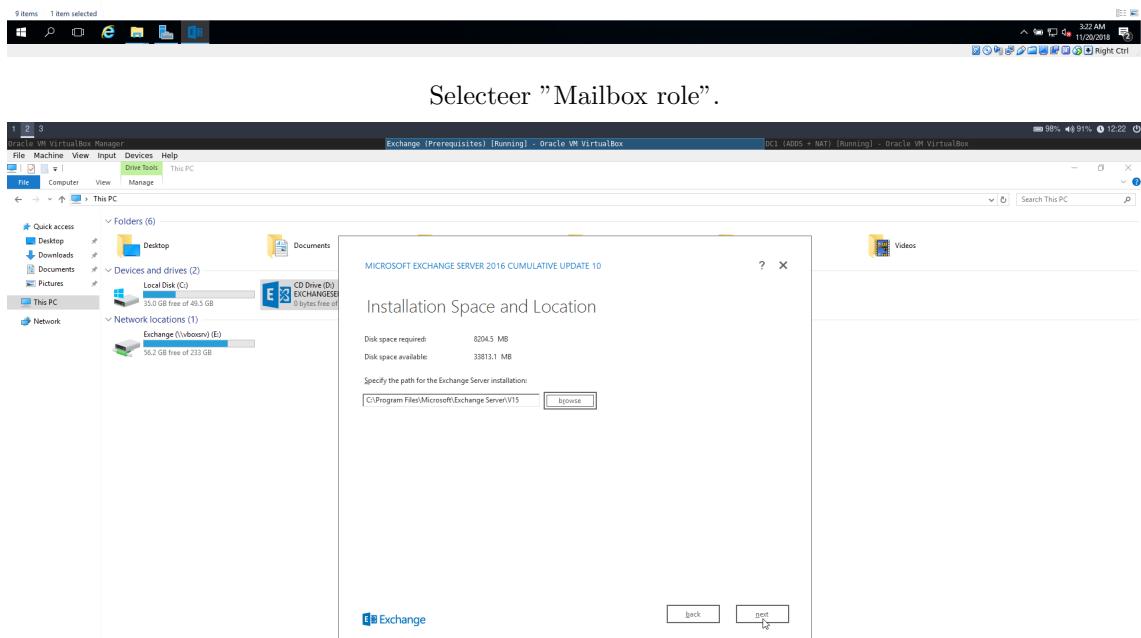
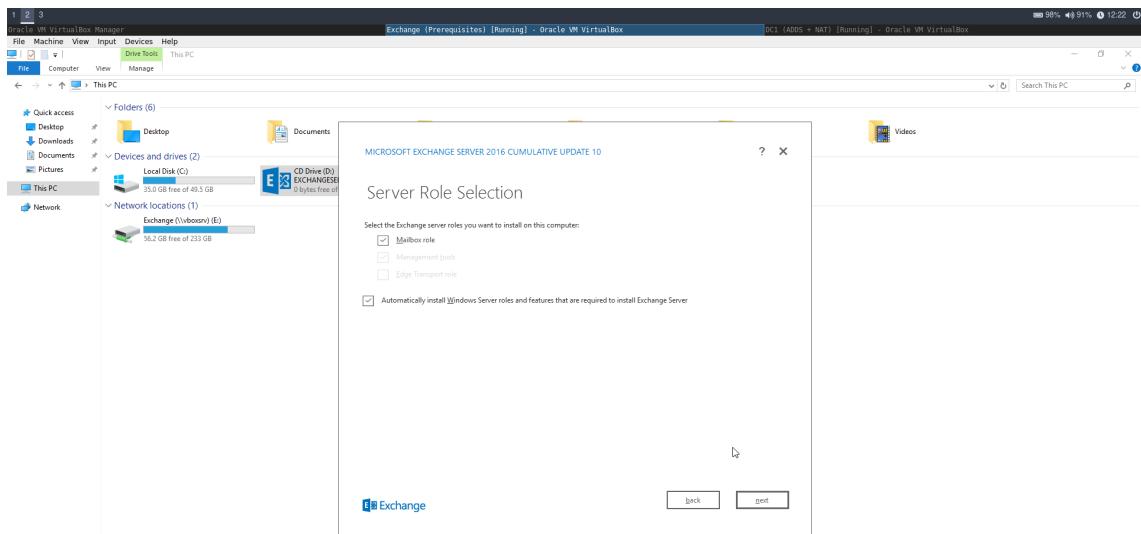


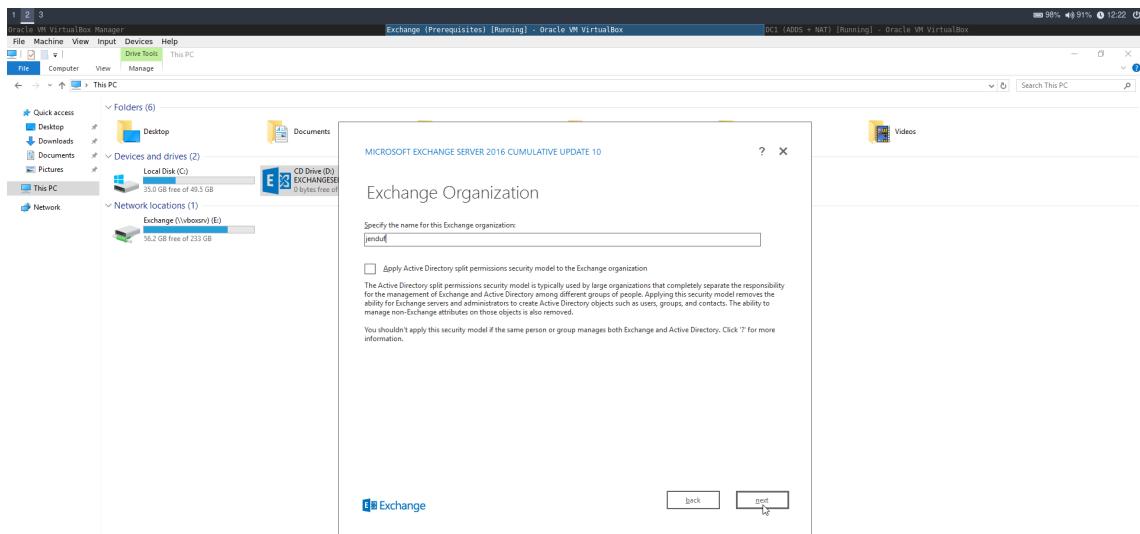


Ga akkoord met de licentievoorwaarden.

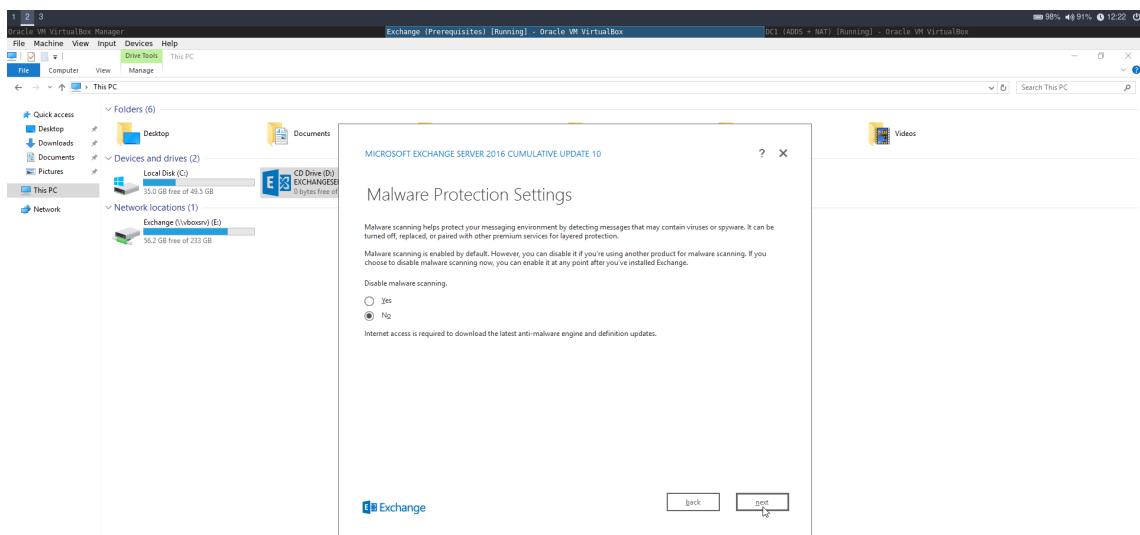


Selecteer "Don't use recommended settings".

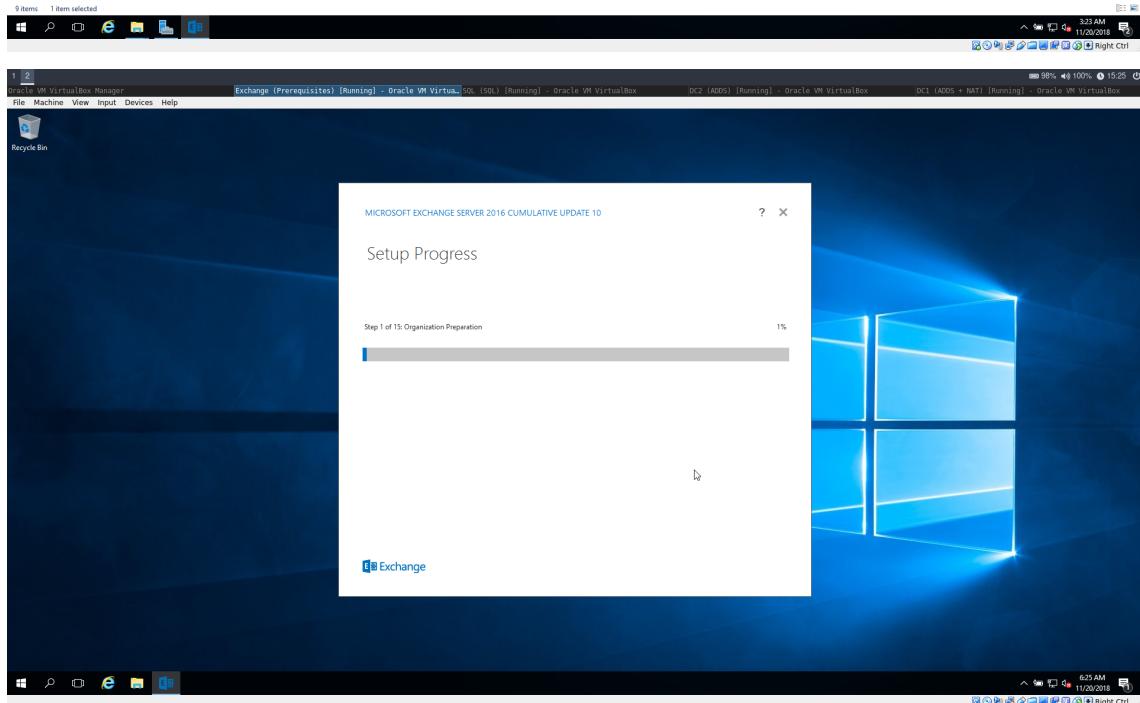
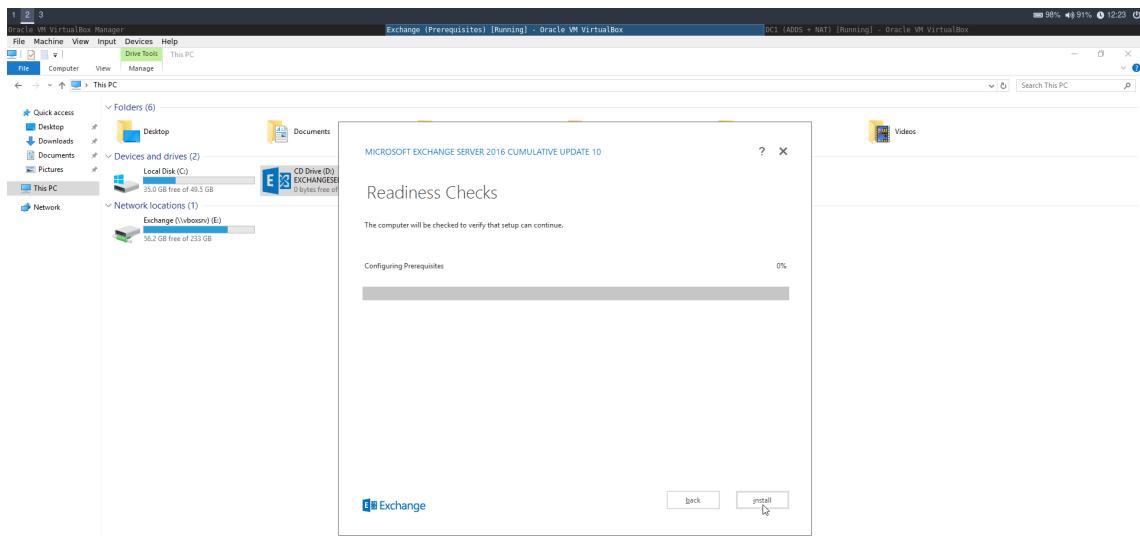


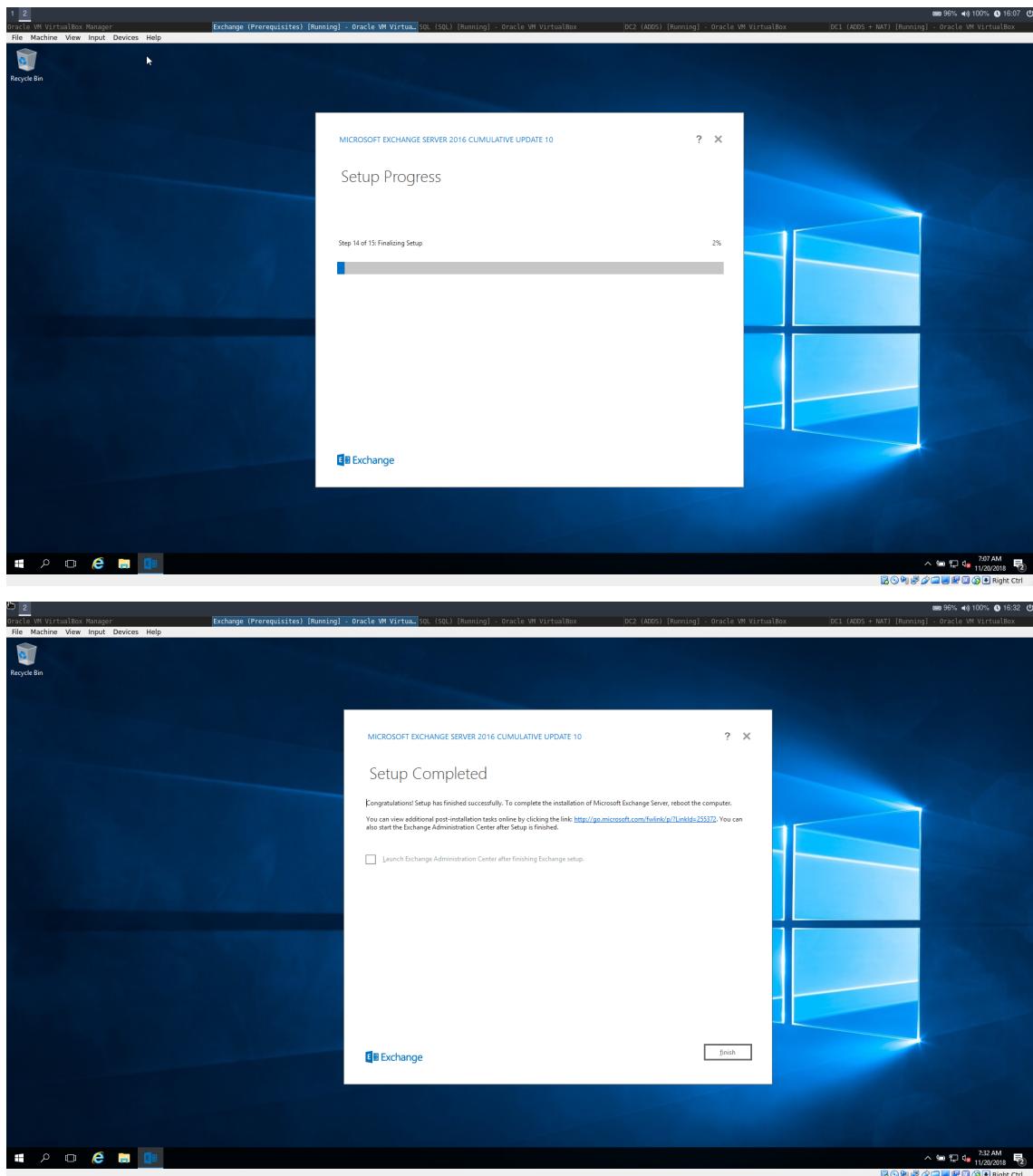


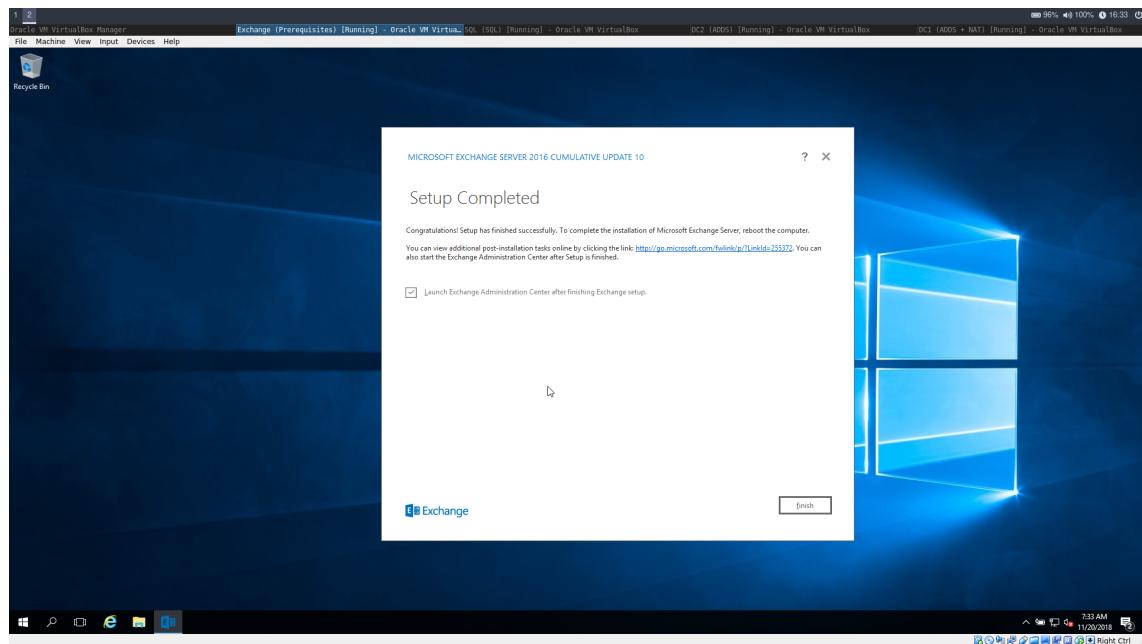
Geef "jenduf" in als organisatienaam.



Selecteer "No" voor de malwarebescherming.

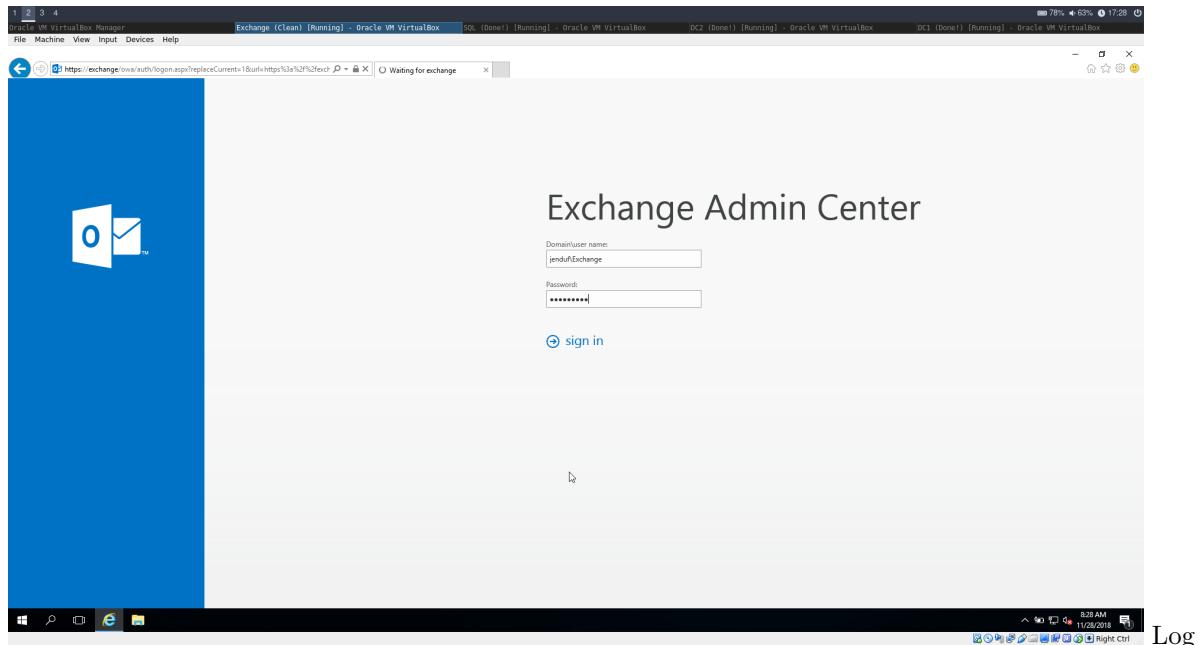




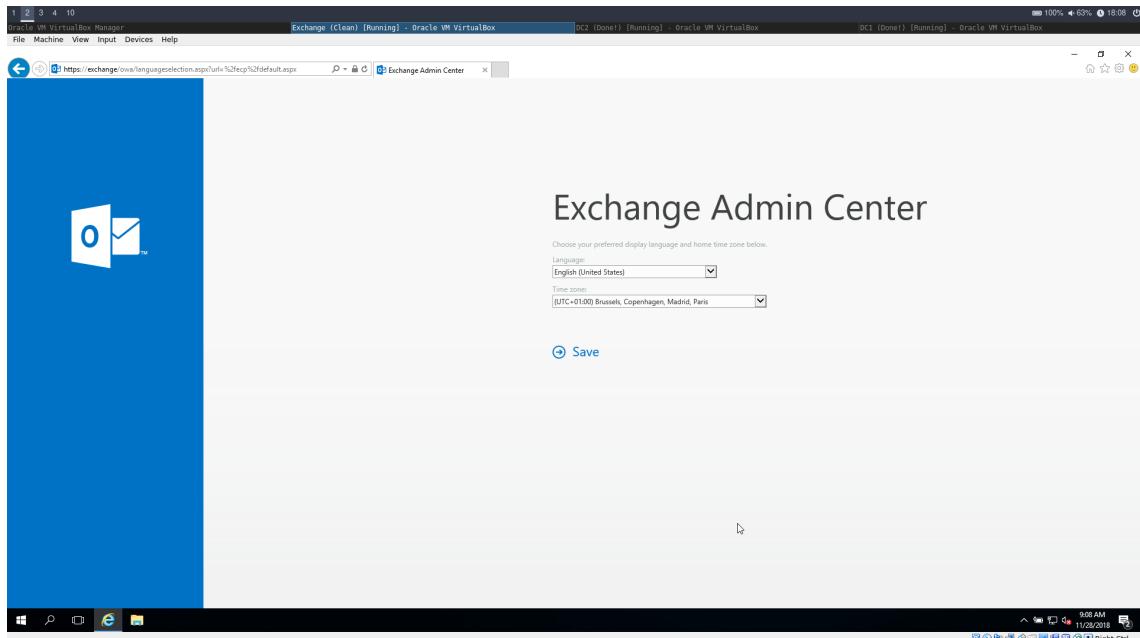


Vink het selectievak aan en klik op "finish".

4.4 Configuratie Exchange-server

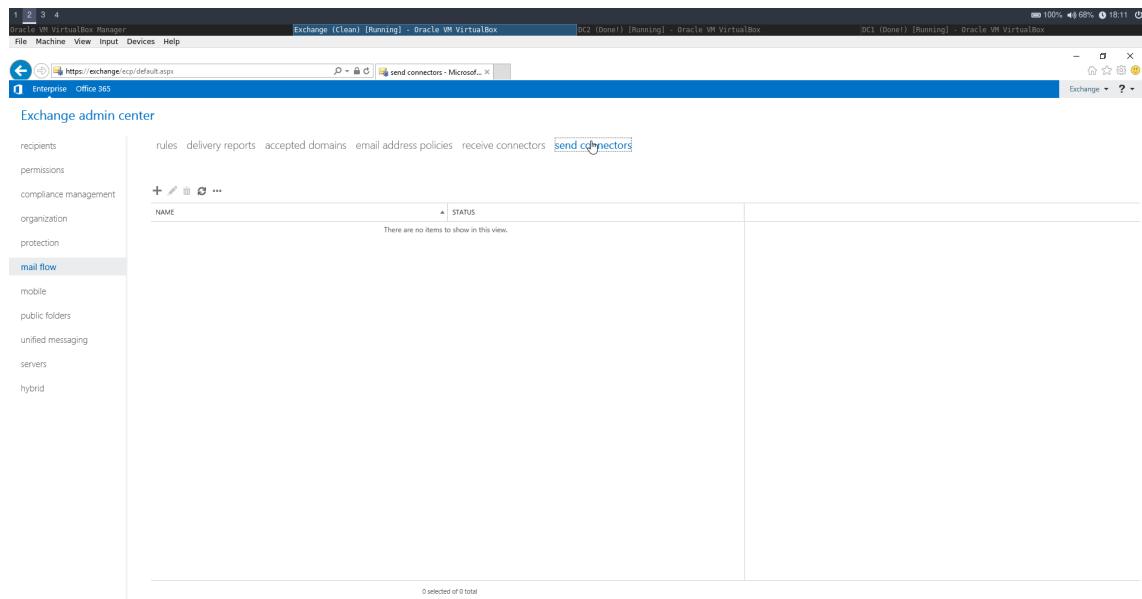


Log in met de vooraf aangemaakte Exchange-gebruiker.

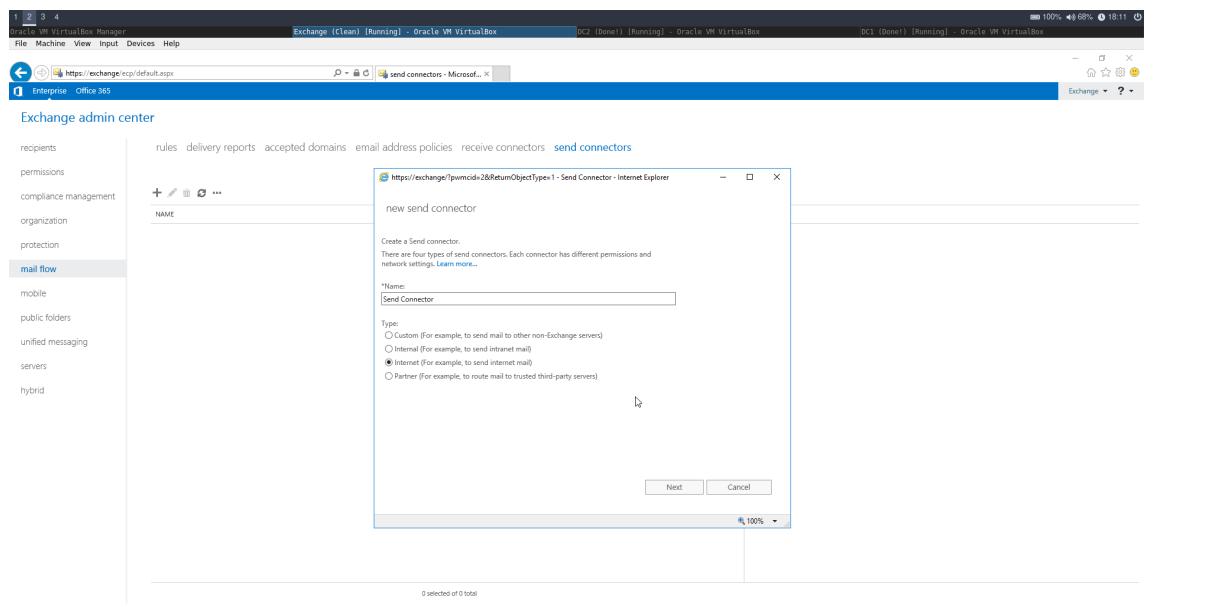


Selecteer de voorkeurstaal en stel de tijdszone in op Brussel.

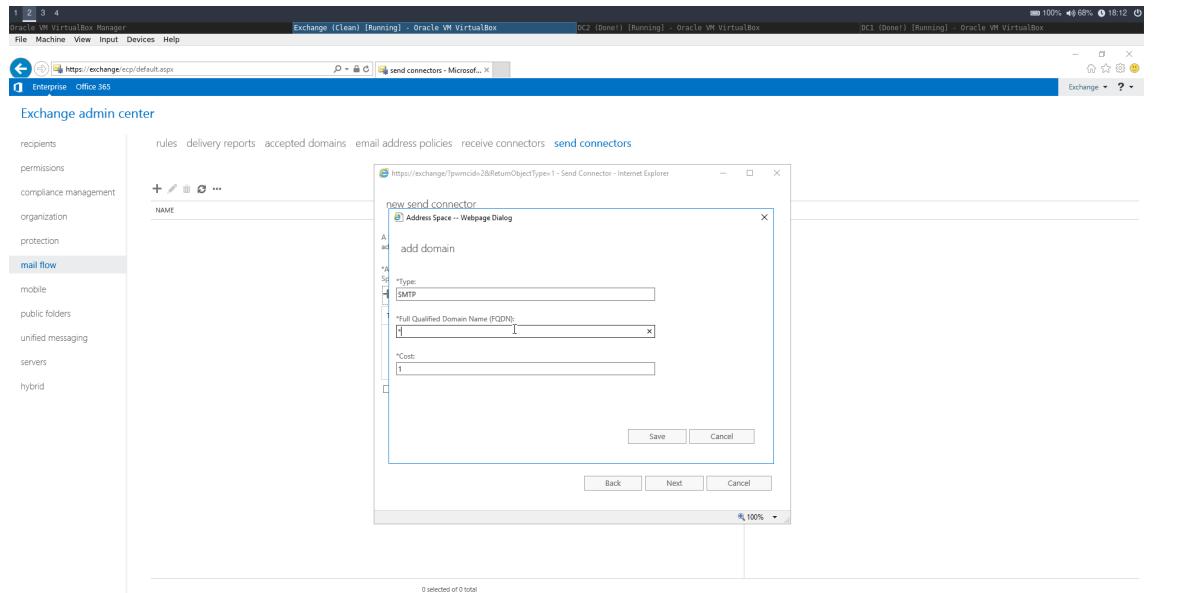
The screenshot shows the Exchange Admin Center mailbox management interface. The left sidebar has a "recipients" tab selected, showing links for "permissions", "compliance management", "organization", "protection", "mail flow", "mobile", "public folders", "unified messaging", "servers", and "hybrid". The main content area shows a table for managing mailboxes. The first row of the table has columns: DISPLAY NAME, MAILBOX TYPE, and EMAIL ADDRESS. The first row contains the values "Exchange", "User", and "Exchange@ynduf.gent". To the left of the table is a toolbar with icons for creating (+), editing (pencil), deleting (trash), and other actions. To the right of the table is a detailed view pane for the selected "Exchange" mailbox. It shows fields for "User mailbox" (set to "Exchange@ynduf.gent"), "Title", "Office", and "Work phone". Under "Phone and Voice Features", it lists "Unified Messaging: Disabled" and "Mobile Devices". Other sections include "In-Place Archive", "In-Place Hold", and "Email Connectivity". The status bar at the bottom shows "9:11 AM" and the date "11/28/2018".



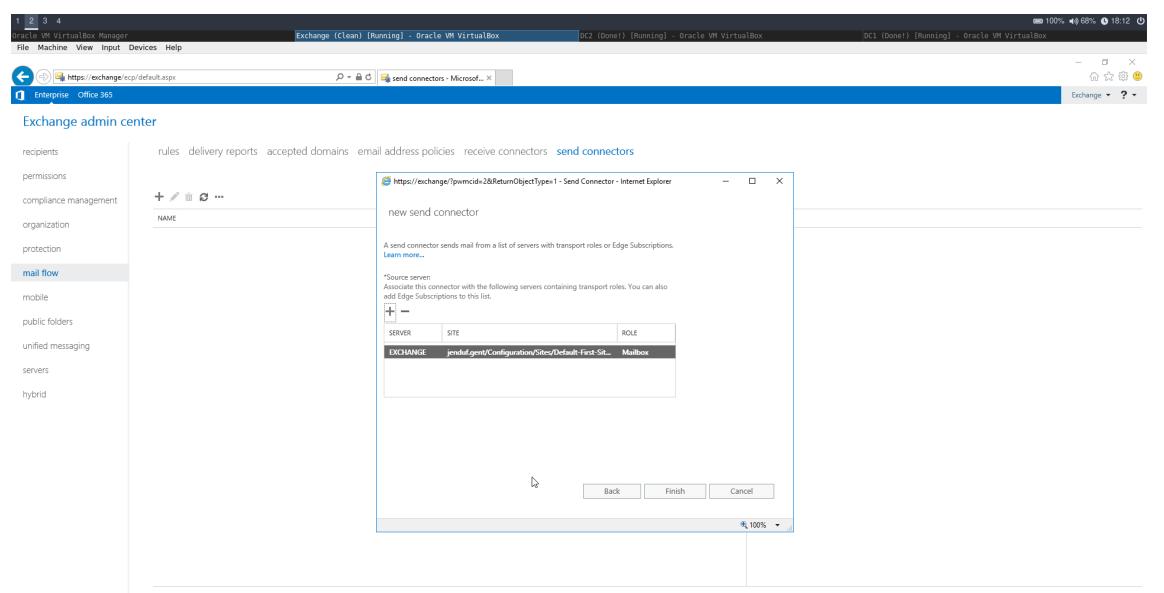
Navigeer naar de "send connectors" in de optie "mail flow".



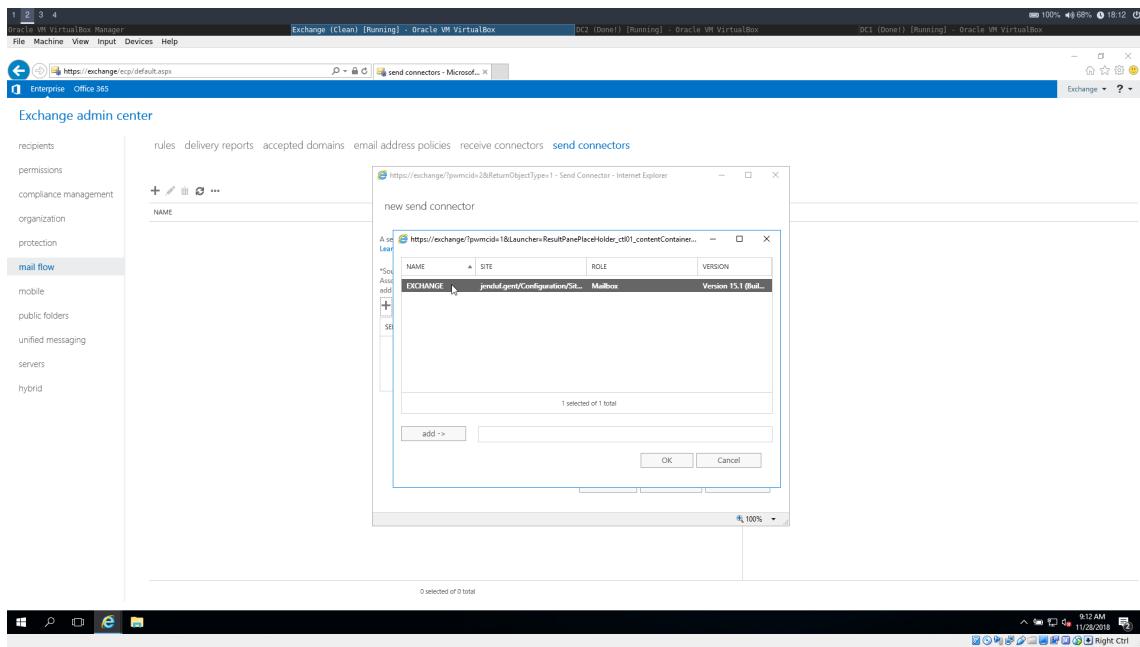
Voeg een nieuwe "send connector" en selecteer de optie "Internet".



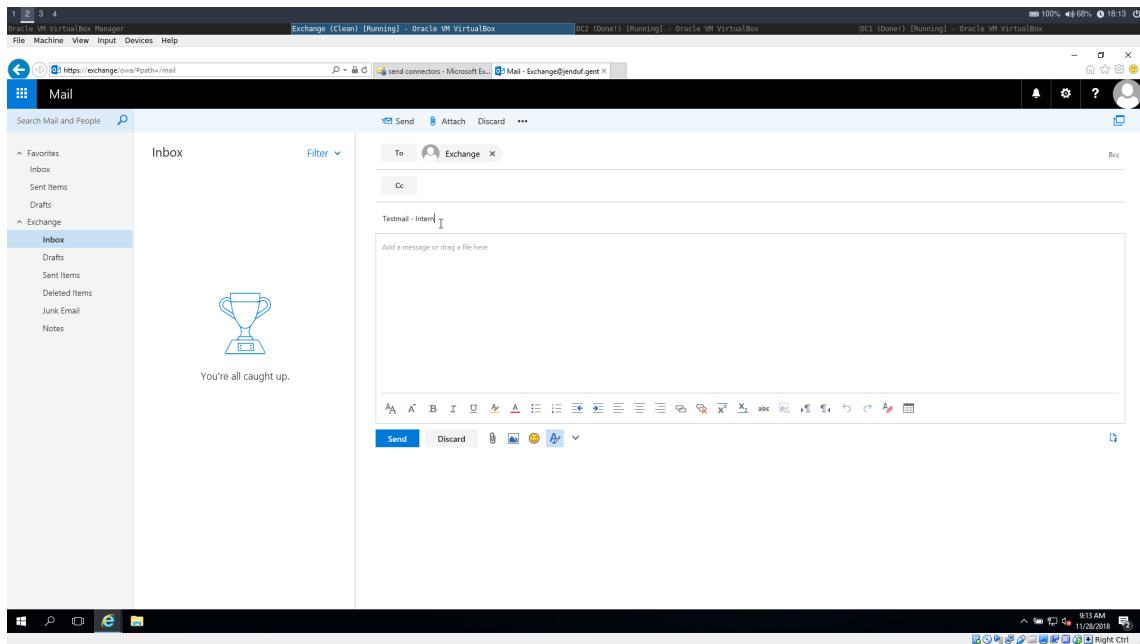
een "*" (Asterisk) in als "FQDN".



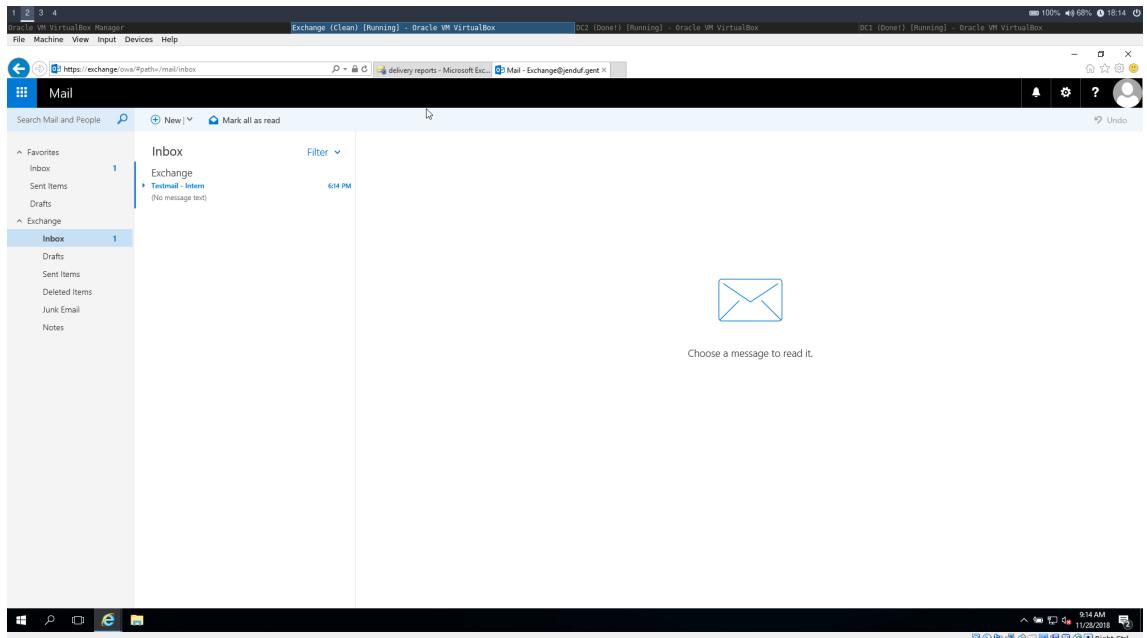
Selecteer de Exchange-server als "Source server"



4.5 Testen Exchange-server



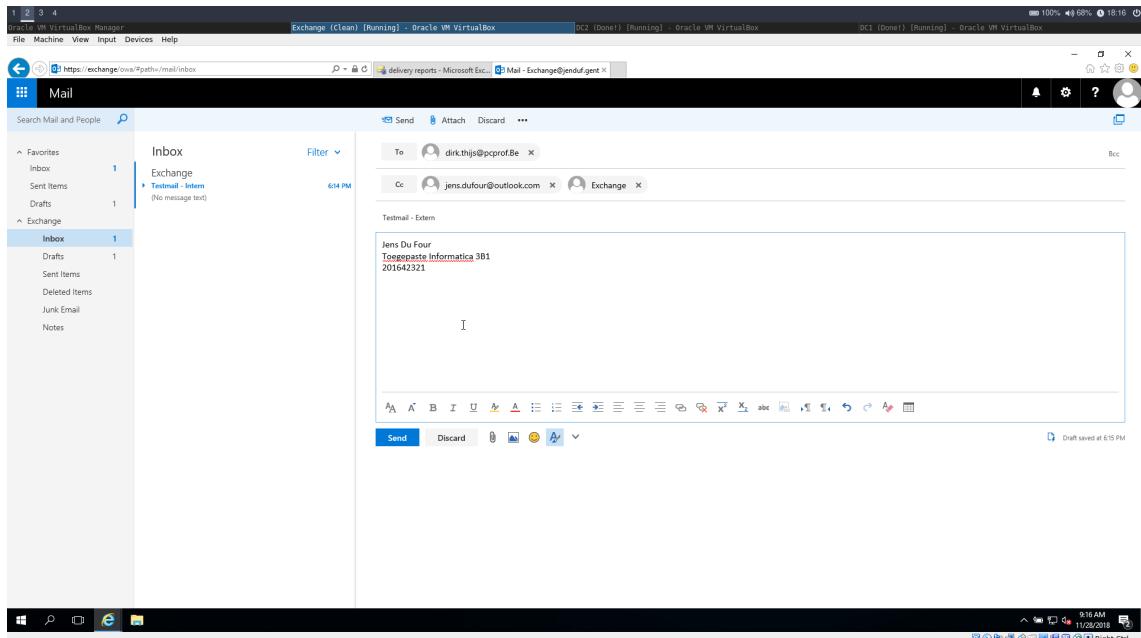
We schrijven een mail aan een intern e-mailadres.



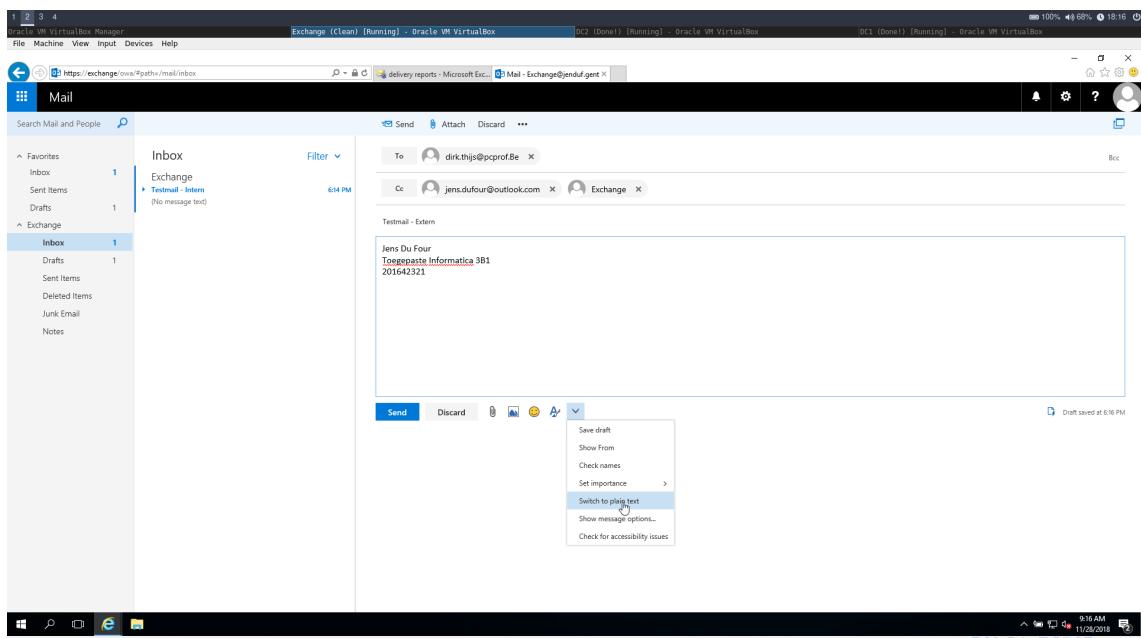
We zien dat deze mail zonder probleem in onze mailbox terecht komt.

A screenshot of the Exchange Admin Center Mail flow search interface. On the left, a sidebar lists categories such as recipients, permissions, compliance management, organization, protection, and mail flow (which is selected). The main area contains a search form for delivery reports, accepted domains, email address policies, receive connectors, and send connectors. Below the form, there's a search results table with one entry: 'Testmail - Intern' from 'Exchange' to 'Exchange' at 11/28/2018 6:13 PM. The status bar at the bottom indicates the date and time as 11/28/2018 9:14 AM.

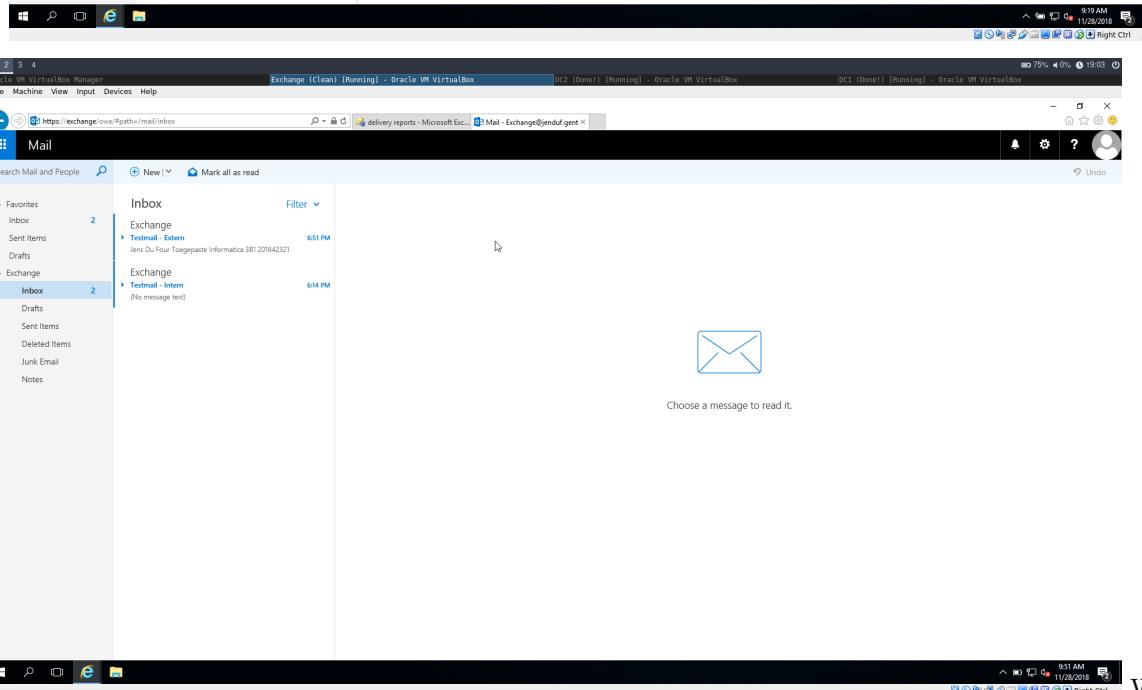
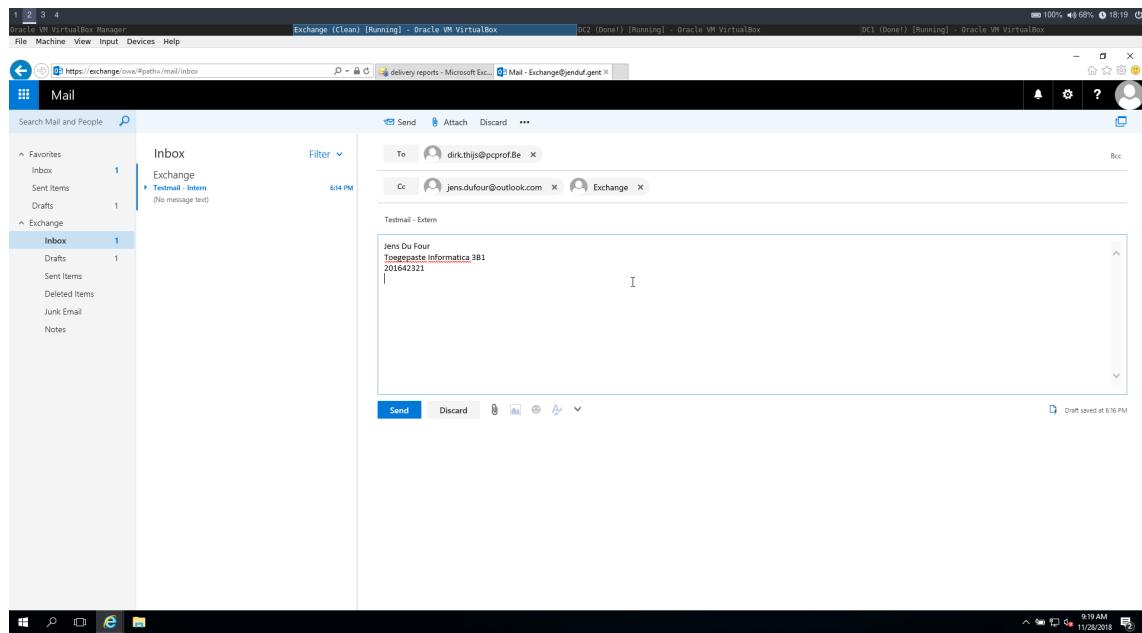
We zien ook van uit "Exchange Admin Center" dat deze zonder fout verzonden werd.



We schrijven hierna een mail naar een extern e-mailadres. Ter controle voegen we ook nog een intern e-mailadres toe.



We verzenden deze als "plain text" zodat deze makkelijker door de veiligheidscontrole geraakt.



We zien dat we deze intern zonder foutmelding ontvangen.

The screenshot shows the Exchange admin center interface. On the left, a sidebar lists various administrative categories like recipients, permissions, compliance management, organization, protection, mail flow, mobile, public folders, unified messaging, servers, and hybrid. The 'mail flow' category is currently selected. In the main pane, there's a search bar and a section for 'Search for delivery information about messages sent to or from a specific person. You can narrow the search to messages with certain keywords in the subject.' Below this, there are fields for 'Mailbox to search:' (set to 'Exchange'), 'Search for messages sent to:' (set to 'jens.dufour@outlook.com'), 'Search for messages received from:' (set to 'dirk.thijssen@poprof.be'), and 'Search for these words in the subject line:' (empty). At the bottom of the search results area, there are 'search' and 'clear' buttons. Below the search area, a table displays the results of the search:

From	To	Subject	SENT TIME
Exchange	jens.dufour@outlook.com	Testmail - Extrem	11/28/2018 6:51 PM
Exchange	Exchange	Testmail - Intern	11/28/2018 6:13 PM

At the bottom right of the search results, it says '1 selected of 2 total'.

Bij een van de twee externe e-mailadressen is deze ook zonder problemen ontvangen.

This screenshot shows a detailed delivery report for a specific message. The report is titled 'Delivery Report' and includes the following details:

- From:** Exchange
- To:** jens.dufour@outlook.com
- Sent:** 11/28/2018 6:51 PM

The report summary states: 'Summary to date: 3 Recipients | 1 Delivered | 1 Transferred | 1 Unsuccessful'. The 'Unsuccessful' section shows one recipient: 'dirk.thijssen@poprof.be' with the status 'Unsuccessful' at '11/28/2018 6:51 PM'. The report then details the delivery attempt to this address:

11/28/2018 6:51 PM EXCHANGE
The message was submitted to exchange.jenduf.gent.
Pending
11/28/2018 6:51 PM exchange.jenduf.gent
Message was received by exchange.jenduf.gent from Exchange.jenduf.gent.
Failed
11/28/2018 6:51 PM exchange.jenduf.gent
The message couldn't be delivered
[ELD-595-17406] Access denied. Denied sending IP 198.198.64.70. To request removal from our list please visit <http://www.microsoft.com/> and follow the directions. For more information please go to <http://go.microsoft.com/fwlink/?LinkId=326652> (AS16012609); [MSGID=10920N-prerpt-be-mail-protection.outlook.com/]([IP=213.199.154.202]; [XET=11092018 5:51:29 PM])

At the bottom right of the report window, it says '100%'.

Bij een van de twee externe e-mailadressen moeten we ons IP laten controleren.