

Installatie van Debian

Download een image bestande van Debian Net Installation

<https://www.debian.org/CD/netinst/>

Kies het juiste image voor jouw architectuur (vermoedelijk AMD64).

Netwerkinstallatie vanaf een minimale CD

Een „netwerkinstallatie“- of „netinst“-CD is één CD die u in staat stelt om het volledige besturingssysteem te installeren. Deze ene CD bevat enkel de minimale hoeveelheid aan software om de installatie te starten en de overige pakketten op te halen vanaf het internet.

Wat is beter voor mij — de minimale opstartbare CD of de volledige CD's? Dat hangt ervan af, maar wij denken dat in de meeste gevallen de minimale CD beter is. U hoeft alleen die pakketten die u tijdens de installatie voor uw machine selecteert te downloaden. Dit spaart zowel tijd als bandbreedte. De volledige CD's zijn geschikter als u meerdere machines wilt installeren, of een machine zonder goedkope internetverbinding.

Welke types van netwerkverbindingen worden ondersteund tijdens de installatie? De netwerkinstallatie gaat ervan uit dat u een verbinding met internet heeft. Hierbij worden verschillende manieren ondersteund, zoals een analoge PPP-inbelverbinding, ethernet en WLAN (met enkele beperkingen), maar geen ISDN — sorry!

De volgende minimale opstartbare CD-images kunnen gedownload worden:

- Officiële "netinst" images voor de "stable" release — [zie hieronder](#)
- Images voor de „testing“ release, zowel versies die dagelijks gebouwd worden als momentopnames waarvan geweten is dat ze zeker werken. Zie de [Debian-Installer pagina](#).

Officiële netinstallatie-images voor de „stable“ release

Tot 300 MB groot. Dit image bevat de installer en een klein aantal pakketten dat de installatie van een (erg) basaal systeem toelaat.

netinst CD-image (via [bittorrent](#))

 [amd64](#), [arm64](#), [armel](#), [armhf](#), [i386](#), [mips](#), [mips64el](#), [mipsel](#), [ppc64el](#), [s390x](#)


netinst CD-image (normaal 150-300 MB, afhankelijk van de architectuur)

 [amd64](#), [arm64](#), [armel](#), [armhf](#), [i386](#), [mips](#), [mips64el](#), [mipsel](#), [ppc64el](#), [s390x](#)

Installeer deze via Virtual Box.

?


X


 Maak een nieuwe virtuele machine aan

Naam en besturingssysteem

Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name:

Machine Folder: 

Type: 

Versie:


Expertmodus

Volgende

Annuleren

?

X

 Maak een nieuwe virtuele machine aan

Harde schijf

Indien u dat wilt, kunt u een virtuele harde schijf aan de nieuwe machine toevoegen. U kunt een geheel nieuw harde schijf bestand aanmaken, één uit de lijst selecteren of met behulp van de mapicoon een bestand op een andere locatie selecteren.



Indien u een wat meer complexe opslaginstelling nodig hebt, kunt u deze stap ook overslaan en deze instellingen aanbrengen wanneer de machine is aangemaakt.

De aanbevolen grootte van de harde schijf is **12,00 GB**.

☐ Voeg virtuele harde schijf niet toe

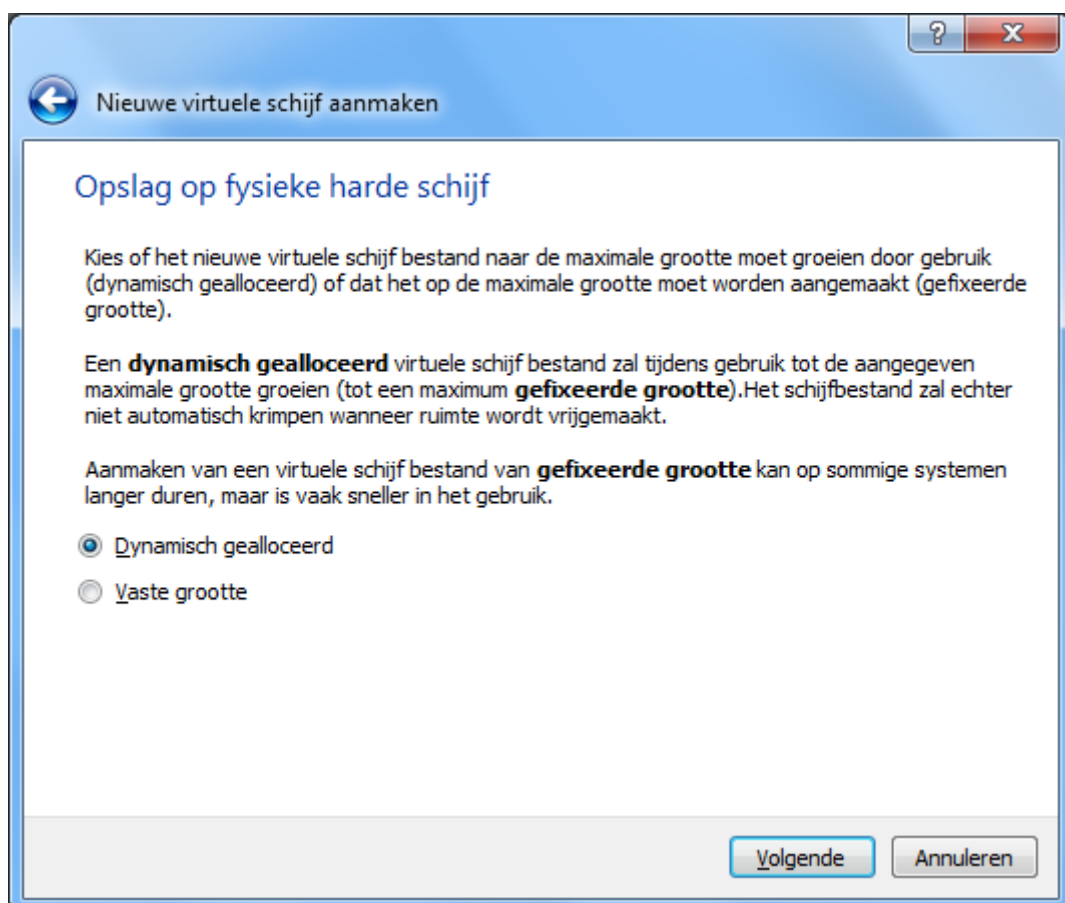
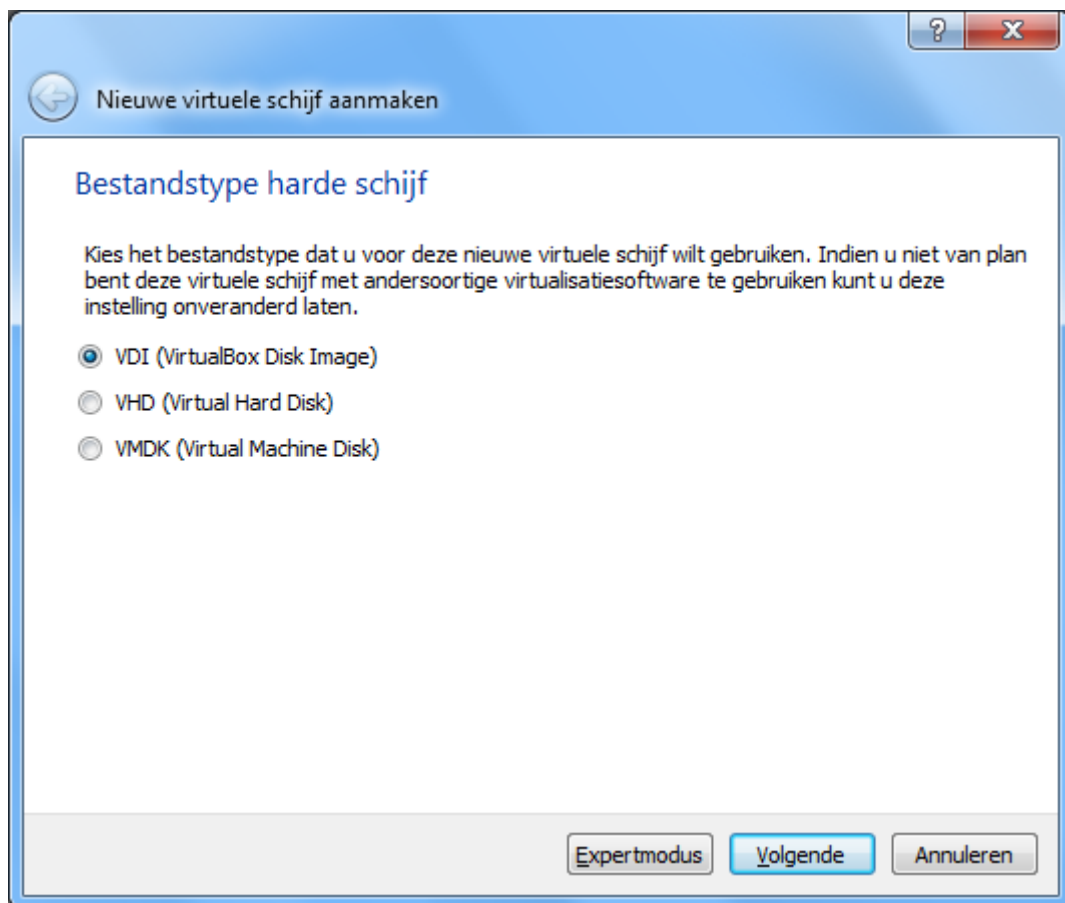
☒ Maak nieuwe virtuele harde schijf nu aan

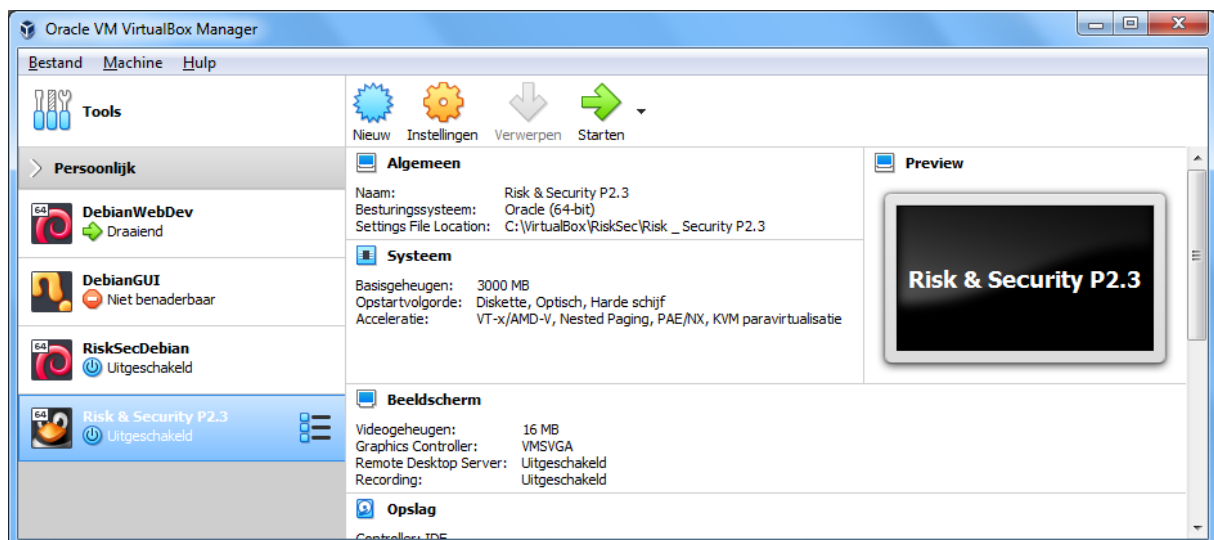
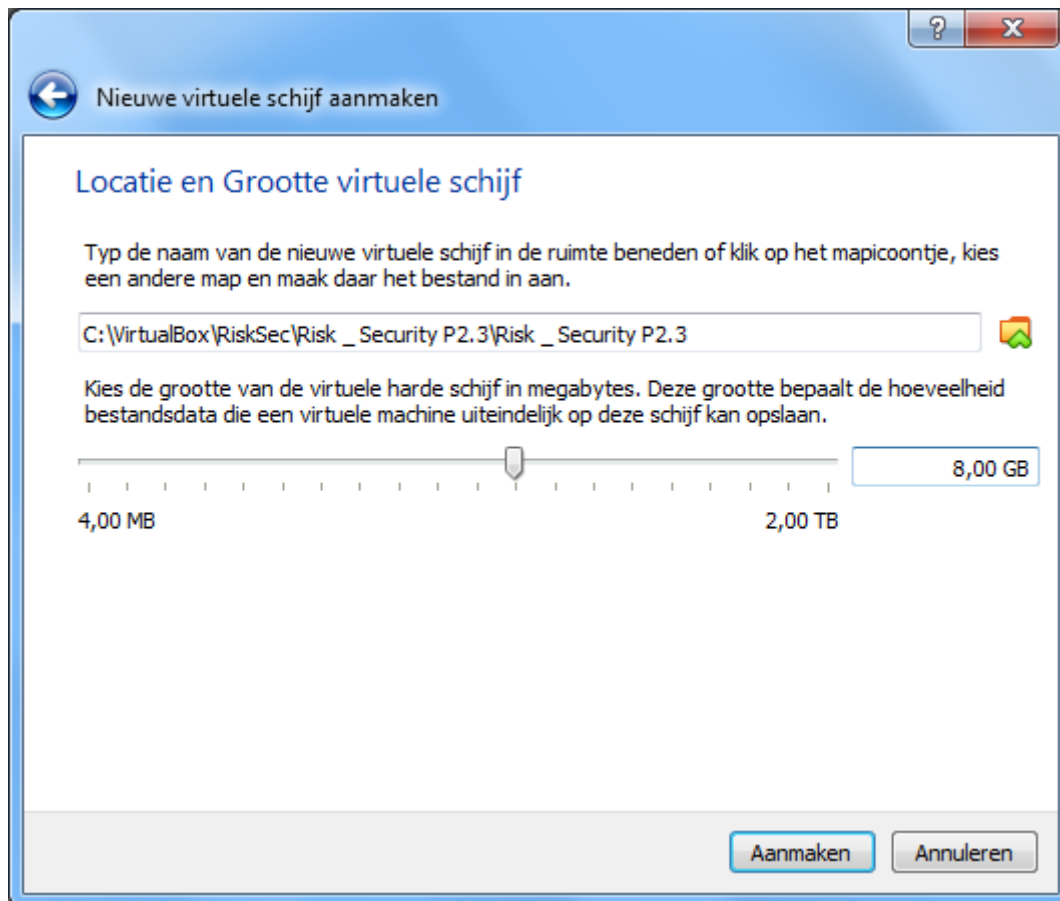
☐ Gebruik een bestaand virtuele harde schijf bestand

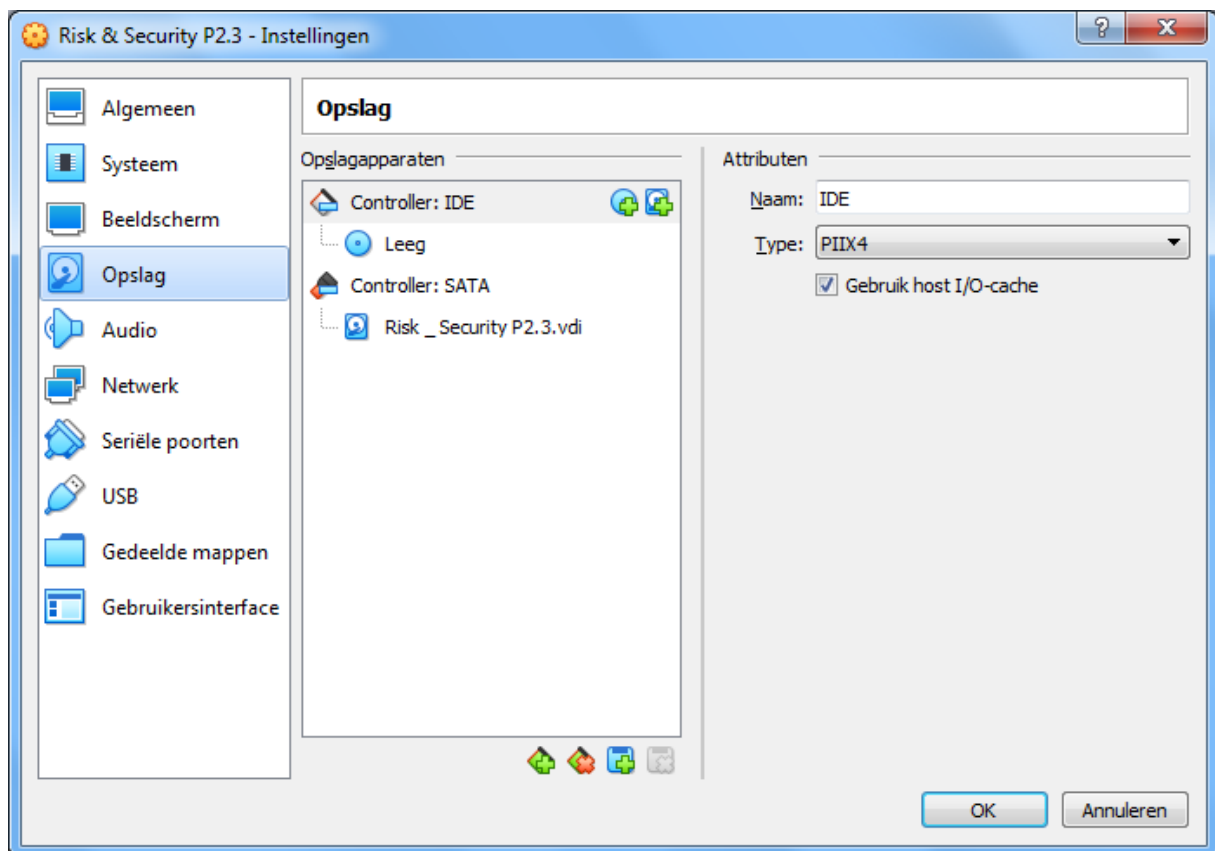
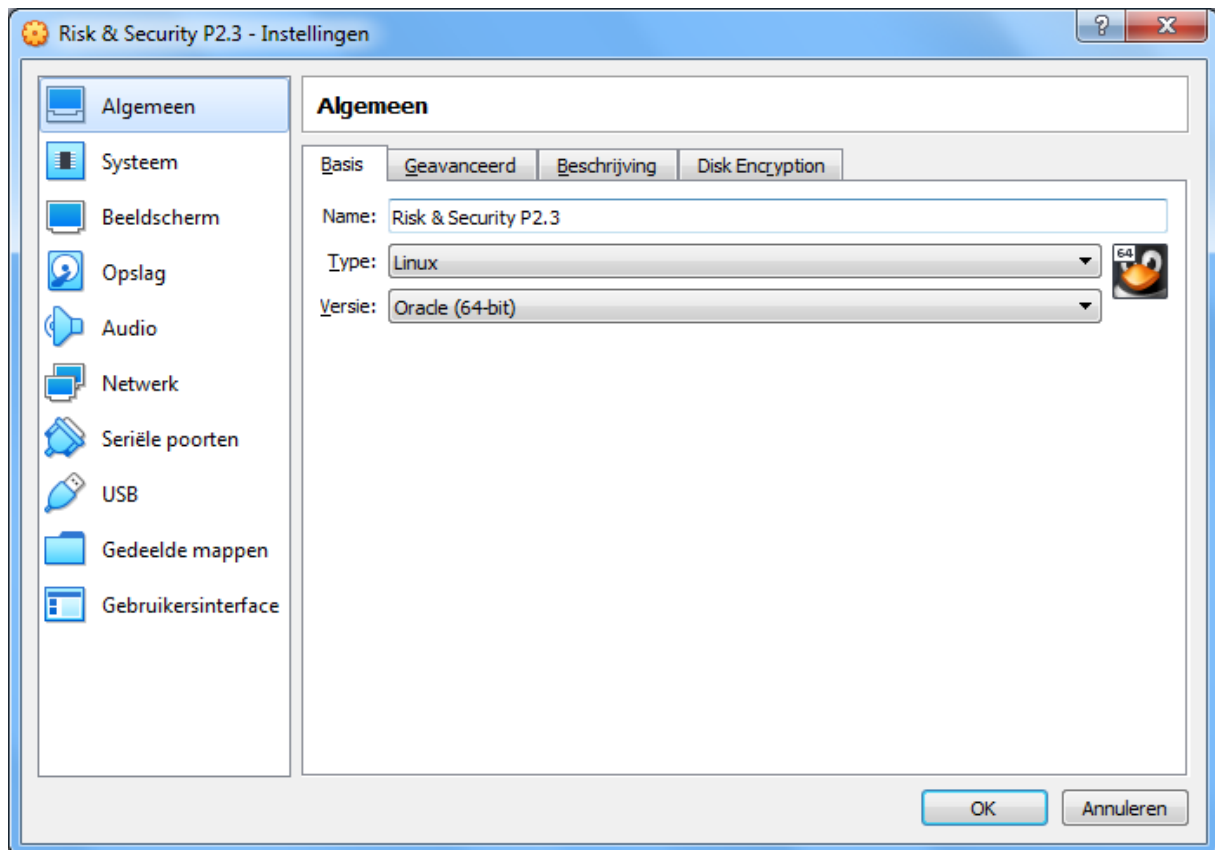
 

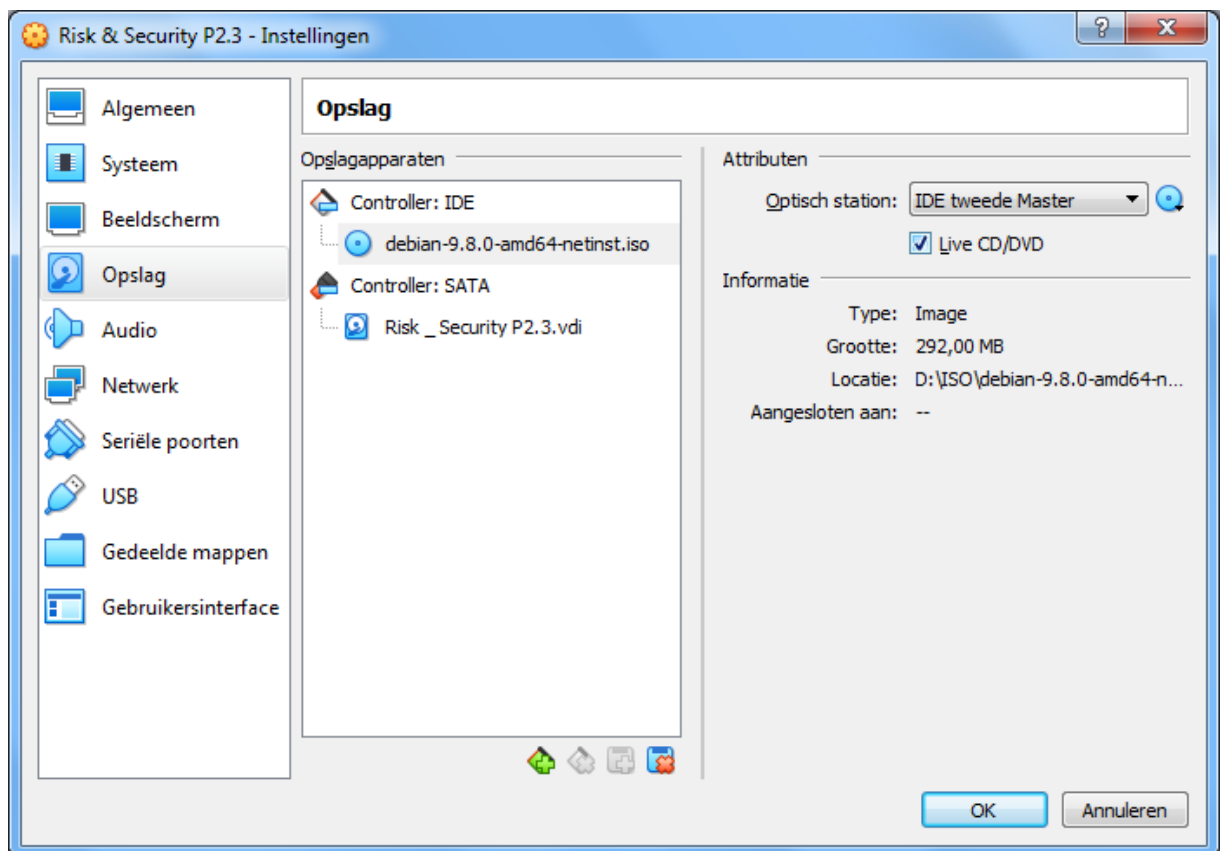
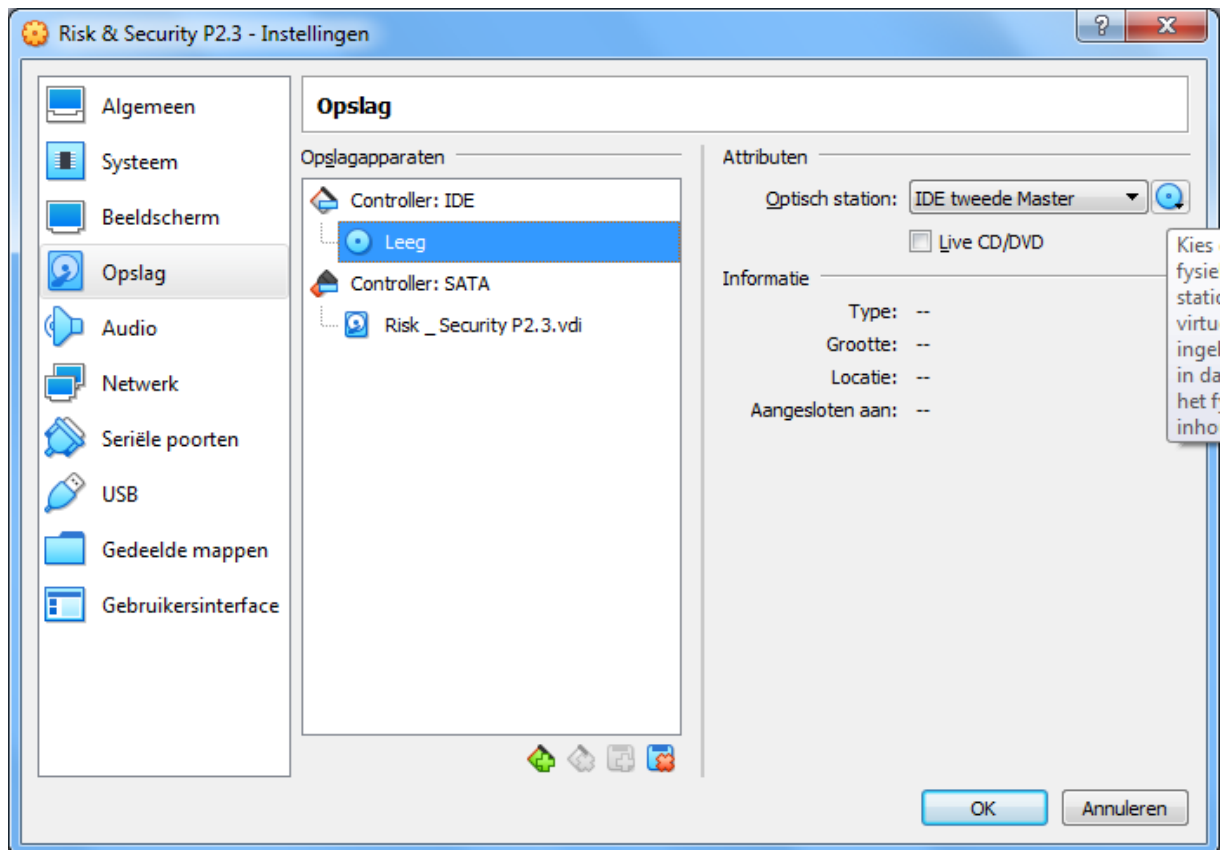
Aanmaken

Annuleren









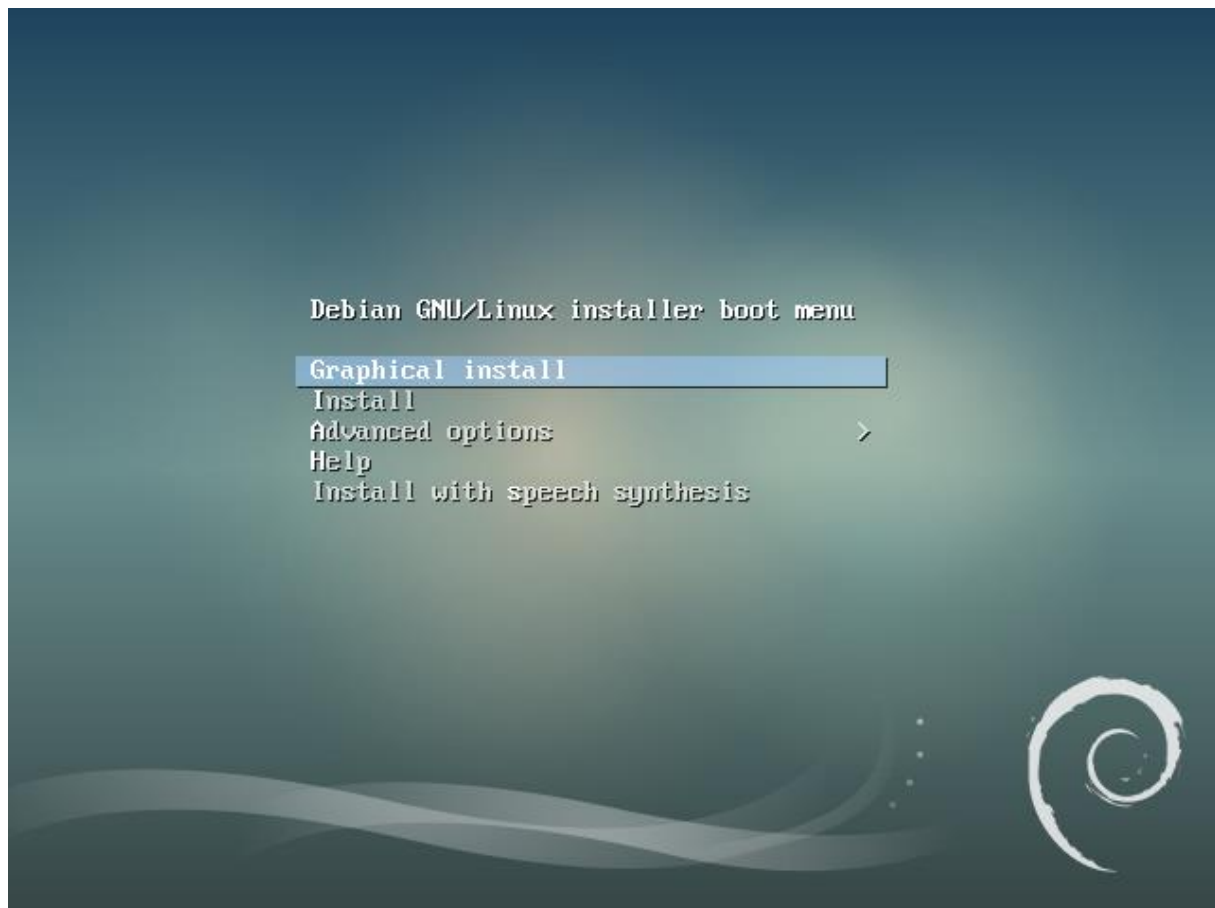
ORACLE[®]
VM



VirtualBox 6.0

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Press F12 to select boot device.



debian 9

Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

Select the continent or region to which your location belongs.

Continent or region:

Africa
Antarctica
Asia
Atlantic Ocean
Caribbean
Central America
Europe
Indian Ocean
North America
Oceania
South America
other

Screenshot

Go Back

Continue

debian 9

Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

Listed are locations for: Europe. Use the <Go Back> option to select a different continent or region if your location is not listed.

Country, territory or area:

Lithuania
Luxembourg
Macedonia, Republic of
Malta
Moldova
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Romania
Russian Federation
San Marino
Serbia

Screenshot

n

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Configure locales

There is no locale defined for the combination of language and country you have selected. You can now select your preference from the locales available for the selected language. The locale that will be used is listed in the second column.

Country to base default locale settings on:

Australia	- en_AU.UTF-8
Botswana	- en_BW.UTF-8
Canada	- en_CA.UTF-8
Hong Kong	- en_HK.UTF-8
India	- en_IN
Ireland	- en_IE.UTF-8
Israel	- en_IL
New Zealand	- en_NZ.UTF-8
Nigeria	- en_NG
Philippines	- en_PH.UTF-8
Singapore	- en_SG.UTF-8
South Africa	- en_ZA.UTF-8
United Kingdom	- en_GB.UTF-8
United States	- en_US.UTF-8
Zambia	- en_ZM
Zimbabwe	- en_ZW.UTF-8

Screenshot

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Configure the keyboard

Keymap to use:

American English
Albanian
Arabic
Asturian
Bangladesh
Belarusian
Bengali
Belgian
Bosnian
Brazilian
British English
Bulgarian (BDS layout)
Bulgarian (phonetic layout)
Burmese
Canadian French
Canadian Multilingual
Catalan
Chinese

Screenshot

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Continue

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Configure the network

Waiting for link-local address...

Cancel

debian 9

Configure the network

Configuring the network with DHCP

Network autoconfiguration has succeeded

Cancel

debian 9

Configure the network

Please enter the hostname for this system.

The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here.

Hostname:

Screenshot

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debian 9

Configure the network

The domain name is the part of your Internet address to the right of your host name. It is often something that ends in .com, .net, .edu, or .org. If you are setting up a home network, you can make something up, but make sure you use the same domain name on all your computers.

Domain name:

Screenshot

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Set up users and passwords

You need to set a password for 'root', the system administrative account. A malicious or unqualified user with root access can have disastrous results, so you should take care to choose a root password that is not easy to guess. It should not be a word found in dictionaries, or a word that could be easily associated with you.

A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals.

The root user should not have an empty password. If you leave this empty, the root account will be disabled and the system's initial user account will be given the power to become root using the "sudo" command.

Note that you will not be able to see the password as you type it.

Root password:

☐ Show Password in Clear

Please enter the same root password again to verify that you have typed it correctly.

Re-enter password to verify:

☐ Show Password in Clear

Screenshot

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Continue

debian 9

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Please enter the same root password again to verify that you have typed it correctly.

Re-enter password to verify:

☐ Show Password in Clear

Screenshot

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Continue

debian 9

Set up users and passwords

A user account will be created for you to use instead of the root account for non-administrative activities.

Please enter the real name of this user. This information will be used for instance as default origin for emails sent by this user as well as any program which displays or uses the user's real name. Your full name is a reasonable choice.

Full name for the new user:

Screenshot

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Continue

debian 9

Set up users and passwords

Select a username for the new account. Your first name is a reasonable choice. The username should start with a lower-case letter, which can be followed by any combination of numbers and more lower-case letters.

Username for your account:

Screenshot

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Continue

debian 9

Set up users and passwords

A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals.

Choose a password for the new user:

●●●●●●●●●●

☐ Show Password in Clear

Please enter the same user password again to verify you have typed it correctly.

Re-enter password to verify:

●●●●●●●●●●

☐ Show Password in Clear

Screenshot

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Continue

debian 9

Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

Configure iSCSI volumes

SCSI3 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK

Undo changes to partitions

Finish partitioning and write changes to disk

Screenshot

Help

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Continue

debian 9

Partition disks

If you choose guided partitioning for an entire disk, you will next be asked which disk should be used.

Partitioning method:

Guided - use entire disk

Guided - use entire disk and set up LVM

Guided - use entire disk and set up encrypted LVM

Manual



Screenshot

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Continue

debian 9

Partition disks

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.

Select disk to partition:

SCSI3 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK



Screenshot

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debian 9

Partition disks

Selected for partitioning:

SCSI3 (0,0,0) (sda) - ATA VBOX HARDDISK: 8.6 GB

The disk can be partitioned using one of several different schemes. If you are unsure, choose the first one.

Partitioning scheme:

All files in one partition (recommended for new users)

Separate /home partition

Screenshot

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debian 9

Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

Configure software RAID

Configure the Logical Volume Manager

Configure encrypted volumes

Configure iSCSI volumes

▽ SCSI3 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK

>	#1	primary	5.4 GB	f	ext4	/
>	#5	logical	3.1 GB	f	swap	swap

Undo changes to partitions

Finish partitioning and write changes to disk

Screenshot

Help

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Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

Configure software RAID

Configure the Logical Volume Manager

Configure encrypted volumes

Configure iSCSI volumes

▽ SCSI3 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK

>	#1	primary	5.4 GB	f	ext4	/
>	#5	logical	3.1 GB	f	swap	swap

Undo changes to partitions

Finish partitioning and write changes to disk

Screenshot

Help

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debian 9

Partition disks

If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.

The partition tables of the following devices are changed:

SCSI3 (0,0,0) (sda)

The following partitions are going to be formatted:

partition #1 of SCSI3 (0,0,0) (sda) as ext4
partition #5 of SCSI3 (0,0,0) (sda) as swap

Write the changes to disks?

☐ No

☒ Yes

Screenshot

Continue

debian 9

Install the base system

Installing the base system

Retrieving libacl1...



debian 9

Install the base system

Installing the base system

Unpacking the base system...



debian 9

Configure the package manager

Your installation CD or DVD has been scanned; its label is:

Debian GNU/Linux 9.8.0 _Stretch_ - Official amd64 NETINST 20190216-11:59

You now have the option to scan additional CDs or DVDs for use by the package manager (apt). Normally these should be from the same set as the installation CD/DVD. If you do not have any additional CDs or DVDs available, this step can just be skipped.

If you wish to scan another CD or DVD, please insert it now.

Scan another CD or DVD?

☒ No

☐ Yes

Screenshot

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Continue

debian 9

Configure the package manager

The goal is to find a mirror of the Debian archive that is close to you on the network -- be aware that nearby countries, or even your own, may not be the best choice.

Debian archive mirror country:

Korea, Republic of

Latvia

Lithuania

Luxembourg

Macedonia, Republic of

Malaysia

Mexico

Moldova

Netherlands

New Caledonia

New Zealand

Norway

Philippines

Poland

Portugal

Romania

Russian Federation

Screenshot

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debian 9

Configure the package manager

Please select a Debian archive mirror. You should use a mirror in your country or region if you do not know which mirror has the best Internet connection to you.

Usually, `ftp.<your country code>.debian.org` is a good choice.

Debian archive mirror:

ftp.nl.debian.org
ftp.snt.utwente.nl
mirror.nl.leaseweb.net
deb.debian.org
debian-archive.trafficmanager.net
debmirror.tuxis.nl
mirror.1000mbps.com
mirror.i3d.net
debian.mirror.cambrium.nl
mirror.proserve.nl
ftp.debian.nl
ftp.nluug.nl
mirrors.noction.com
mirror.dataone.nl
mirror.nforce.com

Screenshot

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debian 9

Configure the package manager

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

The proxy information should be given in the standard form of "`http://[[user][:pass]@]host[:port]/`".

HTTP proxy information (blank for none):

Screenshot

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Continue

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Configure the package manager

 **Configuring apt**


Retrieving file 6 of 7



Cancel

debian 9

Select and install software

 **Select and install software**

Upgrading software...



debian 9

Configuring popularity-contest

The system may anonymously supply the distribution developers with statistics about the most used packages on this system. This information influences decisions such as which packages should go on the first distribution CD.

If you choose to participate, the automatic submission script will run once every week, sending statistics to the distribution developers. The collected statistics can be viewed on <http://popcon.debian.org/>.

This choice can be later modified by running "dpkg-reconfigure popularity-contest".

Participate in the package usage survey?

- ☒ No
- ☐ Yes

Screenshot

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debian 9

Software selection

At the moment, only the core of the system is installed. To tune the system to your needs, you can choose to install one or more of the following predefined collections of software.

Choose software to install:

- ☐ Debian desktop environment
- ☐ ... GNOME
- ☐ ... Xfce
- ☐ ... KDE
- ☐ ... Cinnamon
- ☐ ... MATE
- ☐ ... LXDE
- ☒ web server
- ☐ print server
- ☒ SSH server
- ☒ standard system utilities

Screenshot

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debian 9

Select and install software

Select and install software

Retrieving file 107 of 140



debian 9

Select and install software

Select and install software

Configuring ca-certificates (amd64)



debian 9

Install the GRUB boot loader on a hard disk

Installing GRUB boot loader

Retrieving file 3 of 3

debian 9

Install the GRUB boot loader on a hard disk

It seems that this new installation is the only operating system on this computer. If so, it should be safe to install the GRUB boot loader to the master boot record of your first hard drive.

Warning: If the installer failed to detect another operating system that is present on your computer, modifying the master boot record will make that operating system temporarily unbootable, though GRUB can be manually configured later to boot it.

Install the GRUB boot loader to the master boot record?

☐ No

☒ Yes

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debian 9

Install the GRUB boot loader on a hard disk

You need to make the newly installed system bootable, by installing the GRUB boot loader on a bootable device. The usual way to do this is to install GRUB on the master boot record of your first hard drive. If you prefer, you can install GRUB elsewhere on the drive, or to another drive, or even to a floppy.

Device for boot loader installation:

Enter device manually

/dev/sda (ata-VBOX_HARDDISK_VB4e195bb9-5d8333e6)

Screenshot

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debian 9

Finish the installation

Finishing the installation

Disabling netinst CD in sources.list...

debian 9

Finish the installation



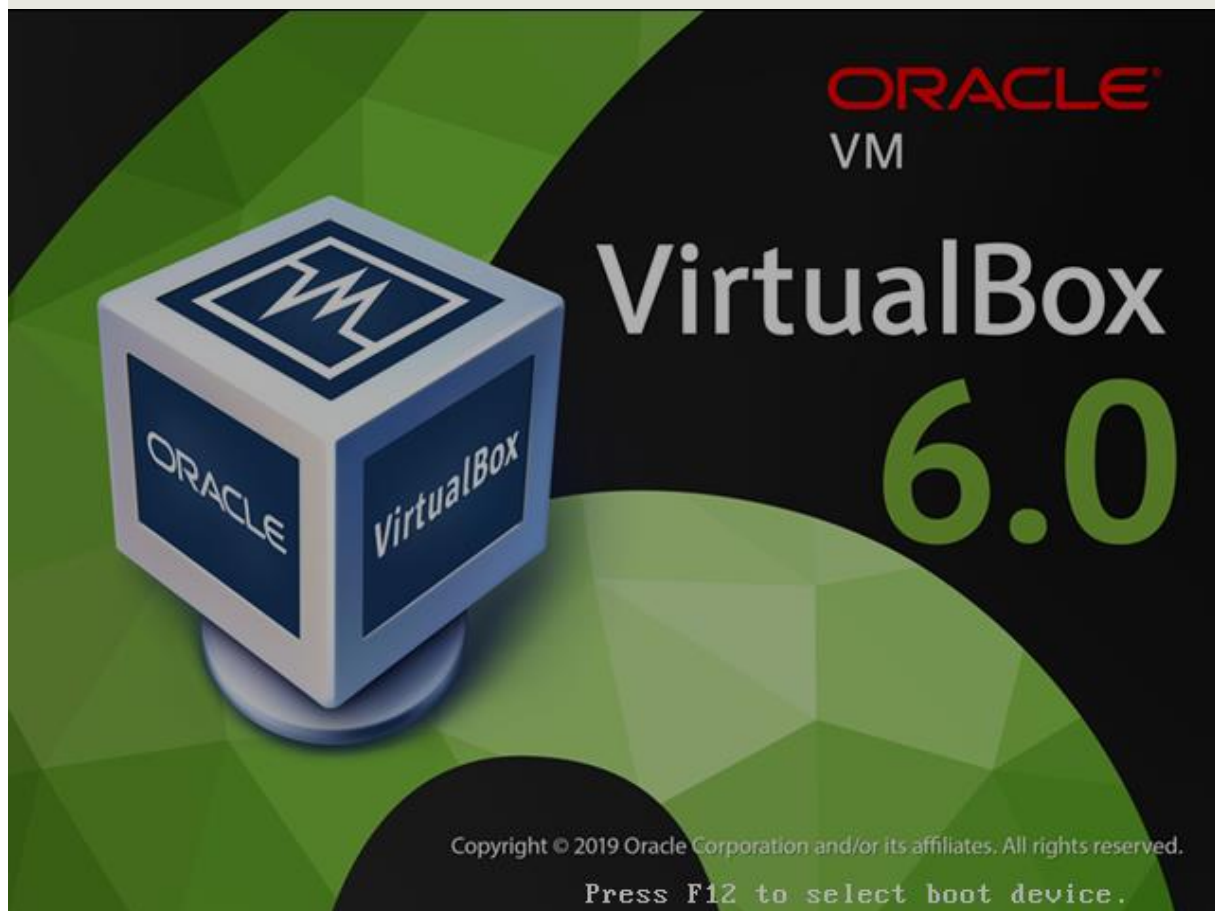
Installation complete

Installation is complete, so it is time to boot into your new system. Make sure to remove the installation media, so that you boot into the new system rather than restarting the installation.

Screenshot

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Debian GNU/Linux 9 risksec tty1

risksec login:

Debian GNU/Linux 9 risksec tty1

risksec login: root

Password: _

```
Debian GNU/Linux 9 risksec tty1

risksec login: root
Password:
Last login: Wed Feb 12 15:04:42 CET 2020 on tty1
Linux risksec 4.9.0-12-amd64 #1 SMP Debian 4.9.210-1 (2020-01-20) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@risksec:~#
```

```
Debian GNU/Linux 9 risksec tty1

risksec login: root
Password:
Last login: Wed Feb 12 15:04:42 CET 2020 on tty1
Linux risksec 4.9.0-12-amd64 #1 SMP Debian 4.9.210-1 (2020-01-20) x86_64

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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@risksec:~# dhclient
RTNETLINK answers: File exists
root@risksec:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:43:e4:2c brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe43:e42c/64 scope link
        valid_lft forever preferred_lft forever
root@risksec:~# _
```

debian 9

Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.

Country, territory or area:

Hong Kong
India
Ireland
Israel
New Zealand
Nigeria
Philippines
Singapore
South Africa
United Kingdom
United States
Zambia
Zimbabwe
other

Screenshot

Go Back

Continue

debian 9

Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.

Country, territory or area:

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India
Ireland
Israel
New Zealand
Nigeria
Philippines
Singapore
South Africa
United Kingdom
United States
Zambia
Zimbabwe
other

Screenshot

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Aanvullende commando's en configuratie

```
Debian GNU/Linux 9 risksec tty1
risksec login:
```

Aanpassen Hosts-file

```
root@risksec: nano /etc/hosts
Voeg deze regel onderaan toe:
```

```
127.0.0.1    mijnsite.local

GNU nano 2.7.4                                File: /etc/hosts
127.0.0.1    localhost
127.0.1.1    risksec

# The following lines are desirable for IPv6 capable hosts
::1          localhost ip6-localhost ip6-loopback
ff02::1      ip6-allnodes
ff02::2      ip6-allrouters

127.0.0.1    mijnsite.local
```

Afsluiten via Ctrl+X (kies voor opslaan).

Testen of het werkt:

```
root@risksec:~# ping mijnsite.local
PING mijnsite.local (127.0.0.1) 56(84) bytes of data.
64 bytes from localhost (127.0.0.1): icmp_seq=1 ttl=64 time=0.058 ms
64 bytes from localhost (127.0.0.1): icmp_seq=2 ttl=64 time=0.060 ms
64 bytes from localhost (127.0.0.1): icmp_seq=3 ttl=64 time=0.069 ms
64 bytes from localhost (127.0.0.1): icmp_seq=4 ttl=64 time=0.114 ms
^C
--- mijnsite.local ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3069ms
rtt min/avg/max/mdev = 0.058/0.075/0.114/0.023 ms
root@risksec:~#
```

Nieuwe website configuratie aanmaken

```
root@risksec: cd /etc/apache2/sites-available
root@risksec: cp 000-default.conf mijnsite.conf
root@risksec: nano mijnsite.conf
```

We gaan nu de nieuwe site aanzetten en zorgen dat het default verkeer niet meer naar de standard website loopt. Hiervoor gebruiken we het commando 'a2ensite' (*Apache 2 Enable Site*) met als parameter onze nieuwe configuratie. Daarna zetten we de standaard configuratie uit (deze vangt namelijk alles af, dus ook onze nieuwe configuratie). Voor het uitzetten van een site gebruik je 'a2dissite' (*Apache 2 Disable Site*) met als parameter '000-default.conf'.

```
root@risksec: a2ensite mijnsite.conf
root@risksec: a2dissite 000-default.conf
```



```
root@risksec: service apache2 restart
```

Nu maken we een directory waar we de website op gaan hosten. We zorgen er voor dat de Linux-user 'www-data' deze map + onderliggende mappen mag lezen. Deze gebruiker 'www-data' wordt namelijk gebruikt door het Apache2 proces om de bestanden te benaderen.

```
root@risksec: mkdir /home/martin/website
root@risksec: chown martin:www-data /home/martin/website
root@risksec: chmod g+rwX /home/martin/website
```

Login als eindgebruiker: (ALT+CTRL+F2 om een nieuwe TTY te openen zodat je parallel ingelogd kan zijn op een headless-machine). We maken even een simpele pagina 'index.html'. om onze configuratie te testen.

```
martin@risksec: cd ~/website
martin@risksec: nano index.html
```



```
GNU nano 2.7.4                                File: index.html

<html>
<head>
  <title>Hello world</title>
</head>
<body>
  <p>Hello world</p>
</body>
</html>

[ Read 8 lines ]
^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text  ^J Justify    ^C Cur Pos   ^Y Prev Page
^X Exit      ^R Read File  ^_ Replace   ^U Uncut Text ^T To Spell   ^_ Go To Line ^V Next Page
```

Gebruik CTRL+X om te verlaten en op te slaan.

```
martin@risksec: mkdir ~/temp
martin@risksec: cd ~/temp
martin@risksec: wget mijnsite.local
```

```
martin@risksec:~/temp$ wget mijnsite.local
--2020-02-12 17:26:29-- http://mijnsite.local/
Resolving mijnsite.local (mijnsite.local)... 127.0.0.1
Connecting to mijnsite.local (mijnsite.local)|127.0.0.1|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 106 [text/html]
Saving to: 'index.html'

index.html          100%[=====>]          106  --.-KB/s    in 0s

2020-02-12 17:26:29 (4.58 MB/s) - 'index.html' saved [106/106]

martin@risksec:~/temp$ cat index.html
<html>
  <head>
    <title>Hello world</title>
  </head>
  <body>
    <p>Hello world</p>
  </body>
</html>
martin@risksec:~/temp$ _
```

We gaan nu PHP installeren en koppelen zodat Apache2 snapt dat bestanden die eindigen op `.PHP` daadwerkelijk door de PHP-parser behandeld worden.

Bijlage – verkeer doorsturen van je Laptop (Browser, PHP Storm) naar je nieuwe Virtuele Machine

