

Cookbook to transform a Teradata VMware Virtual Machine into a Hyper-V one

1. Introduction

Many vendors offer their products for demo purposes as VMware virtual machines. However, we may need to use Hyper-V hypervisor instead.

This post is a cookbook to transform a VMware virtual machine to a Hyper-V one. We are going to use a [Teradata on VMware virtual machine](#) as an example.

The detailed documentation about Teradata is [here](#), and about the Teradata on VMware and its clients can be found [here](#).

To illustrate this quick guide, we are going to use one of the virtual machines Teradata offers for free trials. These virtual machines can be found in [Teradata Downloads](#). At the time of writing this document (October 2019), there are two Teradata Database flavours for trial. We are going to use the [Teradata on VMware Developer Tier Preconfigured](#), released in May 2018.

2. Getting the Teradata VMware virtual machine

Before downloading the Teradata virtual machine, you'll have to log in [Teradata Downloads](#). If you don't have a user for [Teradata Community](#) yet, register in it. In your laptop, open a browser and navigate to the [Teradata Community](#).

The screenshot shows the Teradata Community website. The header includes the Teradata logo, navigation links for Community, Teradata.com, and Teradata Support, and user options for Register, Sign In, and Help. A search bar is present with the text 'Ask. Find. Share.' and a dropdown for 'All community'. The main banner features the text 'Support. Education. Insight. Teradata Access - your journey begins here'. Below the banner are three sections: 'Introducing our Data Science Community', 'Get Answers', and 'Get Inspired'. The 'Active Discussions' section is highlighted, showing a table of recent discussions. To the right, a 'Popular Forums' section lists various categories and their post counts.

Latest Solutions		Active Discussions		
SUBJECT	AUTHOR	POSTED	KUDOS	REPLIES
Feedback on RDM Server Tool	malehr	Dec 17, 2018	0	1
Tools & Utilities				
Json Creation Database	anujh	Dec 17, 2018	0	4
Sql Assistant 15.10.17 "insert spaces				

Popular Forums	
Database	9192
Tools & Utilities	3032
General	1545
Connectivity	1186
UDA	693

You can also register in [Teradata Downloads](#).

Cookbook to transform a Teradata VMware Virtual Machine into a Hyper-V oneCelia Muriel - celiamuriel.com

teradata. Downloads

SearchCommunityDownloads

RegisterLog in

Find publicly-available downloads from Teradata. Use the *Display Downloads From* sidebar on the right to browse, or select one of the popular downloads below.

Teradata JDBC Driver	Teradata Studio	Teradata Studio Express
.NET Data Provider	Teradata Developer Tools for Visual Studio	
ODBC Driver (Windows Linux Solaris AIX HP-UX Mac)	OLE DB Provider	Teradata R Package - tdplyr
Teradata SQL Driver for Python	Teradata SQL Driver Dialect for SQLAlchemy	Teradata Python Package - teradataml
Teradata on VMware Developer Tier	Teradata Express (VMware)	Teradata on VMware Developer Tier Preconfigured (Quick-start SMP only version)
TTU Windows Install	TTU Linux Install	CLIV2 (Windows Linux Solaris AIX HP-UX)
Teradata Wallet (Windows Linux Solaris AIX HP-UX)	Teradata Mapping Manager	Teradata Warehouse Miner
DBQL Scripts	Teradata XML Services	Teradata 14.10 XML Data Type
Oracle UDFs	TDBench 8.0 for any DBMS	Presto
Teradata Geospatial Open Source/Licenses	R Repository - Open Source R	
Aster Client Tools (Windows Linux Solaris AIX Mac)	Aster Development Environment	Aster Express for VMware
Aster Analytics Software (AsterR Extensions for KNIME)	Aster Analytics (Custom Schema Installer Uninstall Examples POC)	

If you are a customer, this is the complete list of software we offer for download from a public site. If you are unable to find the software you are seeking, please contact your Teradata account representative who may be able to set you up with a private download site.

DISPLAY DOWNLOADS

All (83)

Aster (17)

Tools (19)

Connectivity (19)

Applications (2)

Database (5)

General (1)

Extensibility (19)

Viewpoint (1)

Once you have a user, log in [Teradata Downloads](#).

teradata. Downloads

SearchCommunityDownloadsForums

RegisterLog in

Find publicly-available downloads from Teradata. Use the *Display Downloads From* sidebar on the right to browse, or select one of the popular downloads below.

Teradata JDBC Driver	Teradata Studio	Teradata Studio Express
.NET Data Provider	Teradata Developer Tools for Visual Studio	
ODBC Driver (Windows Linux Solaris AIX HP-UX Mac)	OLE DB Provider	Teradata R Package - tdplyr
Teradata SQL Driver for Python	Teradata SQL Driver Dialect for SQLAlchemy	Teradata Python Package - teradataml
Teradata on VMware Developer Tier	Teradata Express (VMware)	Teradata on VMware Developer Tier Preconfigured (Quick-start SMP only version)
TTU Windows Install	TTU Linux Install	CLIV2 (Windows Linux Solaris AIX HP-UX)
Teradata Wallet (Windows Linux Solaris AIX HP-UX)	Teradata Mapping Manager	Teradata Warehouse Miner
DBQL Scripts	Teradata XML Services	Teradata 14.10 XML Data Type
Oracle UDFs	TDBench 8.0 for any DBMS	Presto
Teradata Geospatial Open Source/Licenses	R Repository - Open Source R	
Aster Client Tools (Windows Linux Solaris AIX Mac)	Aster Development Environment	Aster Express for VMware
Aster Analytics Software (AsterR Extensions for KNIME)	Aster Analytics (Custom Schema Installer Uninstall Examples POC)	

If you are a customer, this is the complete list of software we offer for download from a public site. If you are unable to find the software you are seeking, please contact your Teradata account representative who may be able to set you up with a private download site.

DISPLAY DOWNLOADS

All (83)

Aster (17)

Tools (19)

Connectivity (19)

Applications (2)

Database (5)

General (1)

Extensibility (19)

Viewpoint (1)

Log In


If you don't have a username and password, [create an account](#).


Username

Celia

Password

●●●●●●●●

 I'm not a robot


reCAPTCHA
[Privacy](#) - [Terms](#)

Log in

[Forget your password?](#)

In [Teradata Downloads](#), click on [Teradata on VMware Developer Tier Preconfigured](#).

teradata. Downloads

Celia

Account s

Search

Community

Downloads

Find publicly-available downloads from Teradata. Use the *Display Downloads From* sidebar on the right to browse, or select one of the popular downloads below.

Teradata JDBC Driver	Teradata Studio	Teradata Studio Express
.NET Data Provider	Teradata Developer Tools for Visual Studio	
ODBC Driver (Windows Linux Solaris AIX HP-UX Mac)	OLE DB Provider	Teradata R Package - tdplyr
Teradata SQL Driver for Python	Teradata SQL Driver Dialect for SQLAlchemy	Teradata Python Package - teradataml
Teradata on VMware Developer Tier	Teradata Express (VMware)	Teradata on VMware Developer Tier Preconfigured (Quick-start SMP only version)
TTU Windows Install	TTU Linux Install	CLIV2 (Windows Linux Solaris AIX HP-UX)
Teradata Wallet (Windows Linux Solaris AIX HP-UX)	Teradata Mapping Manager	Teradata Warehouse Miner
DBQL Scripts	Teradata XML Services	Teradata 14.10 XML Data Type
Oracle UDFs	TDBench 8.0 for any DBMS	Presto
Teradata Geospatial Open Source/Licenses	R Repository - Open Source R	
Aster Client Tools (Windows Linux Solaris AIX Mac)	Aster Development Environment	Aster Express for VMware
Aster Analytics Software (AsterR Extensions for KNIME)	Aster Analytics (Custom Schema Installer Uninstall Examples POC)	

If you are a customer, this is the complete list of software we offer for download from a public site. If you are unable to find the software you are seeking, please contact your Teradata account representative who may be able to set you up with a private download site.

teradata. Downloads

Search

Community Downloads Forums Blogs

ALL DOWNLOADS DATABASE DOWNLOADS

Teradata on VMware Developer Tier Preconfigured

Release 16.20 - 23 May 2018

Tags: vmware express

Teradata Database on VMware - Developer Tier Preconfigured

Teradata Database on VMware Developer Tier Preconfigured - Getting Started Guide

Version: 16.20
Released: 23 May 2018
TTU: 16.20
OS: Linux VMware x86 64-bit
Teradata: 16.20

Teradata Database on VMware Developer Tier Preconfigured - Database Template for 16.20

ABOUT THIS DOWNLOAD

Developer Tier is a SUSE Linux Enterprise Server (SLES) operating system and Teradata Database packaged into a virtual container that runs in a VMware vSphere ESXI virtualized environment on third-party hardware. Developer Edition software consists of a template and associated property files and scripts.

Teradata Developer Tier (Preconfigured) is a simplified version of Teradata Database Developer tier that allows you to deploy Teradata Database on VMware quickly and easily using the OVA template. Networking is already configured to use DHCP, and you can add storage to the system.

To enable additional Teradata Database features or use additional Teradata applications, see Teradata Database on VMware Developer Tier Getting Started Guide or Teradata Database on VMware Base, Advanced, Enterprise Tiers Getting Started Guide.

Note: You must have administrative privileges on the destination VMware environment to install and configure Developer Tier virtual machines.

Getting Started

Please see the Teradata Database on VMware Developer Tier Preconfigured Getting Started Guide

DISPLAY DOWNLOADS FROM

All (83)
Aster (17)
Tools (19)
Connectivity (19)
Applications (2)
Database (5)
General (1)
Extensibility (19)
Viewpoint (1)

MOST POPULAR DOWNLOADS

13.10.00.00 - 14 Dec 2017
Teradata Tools and Utilities - Windows Installation Package
TTU Windows Package This Teradata Tools and Utilities (TTU) 16.20 package is the full collection...

13.10.00.05 - 09 Jul 2018
Teradata Express for VMware Player
Download Teradata Express for VMware, a free, fully-functional Teradata database, that can be up ...

13.10.00.01 - 01 Nov 2018
Teradata ODBC Driver For Windows
The ODBC Driver for Windows allows you to connect to the Teradata database from Windows applicati...

Click on the Getting Started Guide. Scroll down to the bottom of the License Agreement, and click on “I Agree”.

License Agreement

Specific Terms of Use - License Agreement for Teradata Database on VMware - Developer Tier Preconfigured

License Reference: 200924/219099 (License for Teradata Developer Tier) @ 200774/78/1545290676

SPECIFIC TERMS OF USE

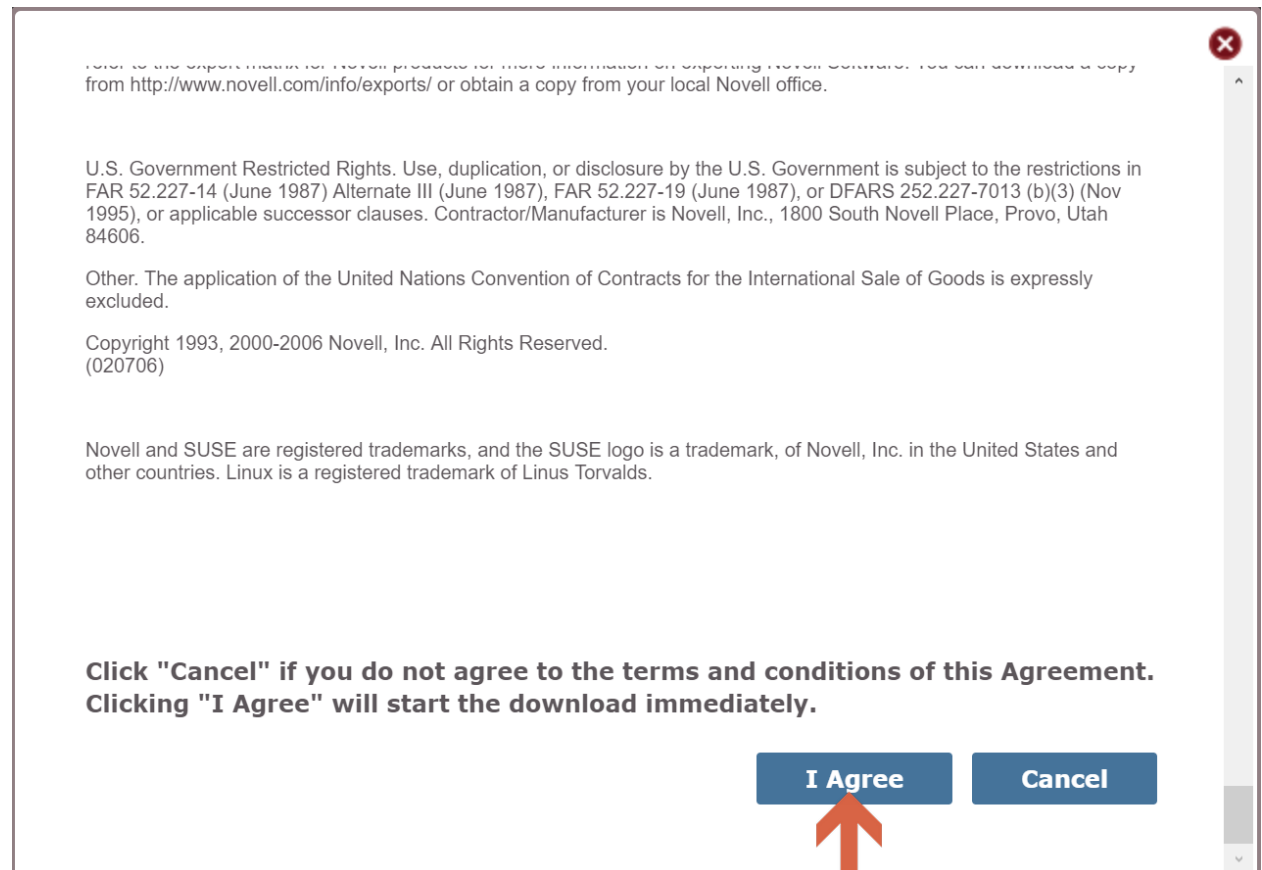
LICENSE AGREEMENT

PRODUCT: Teradata Analytics Platform

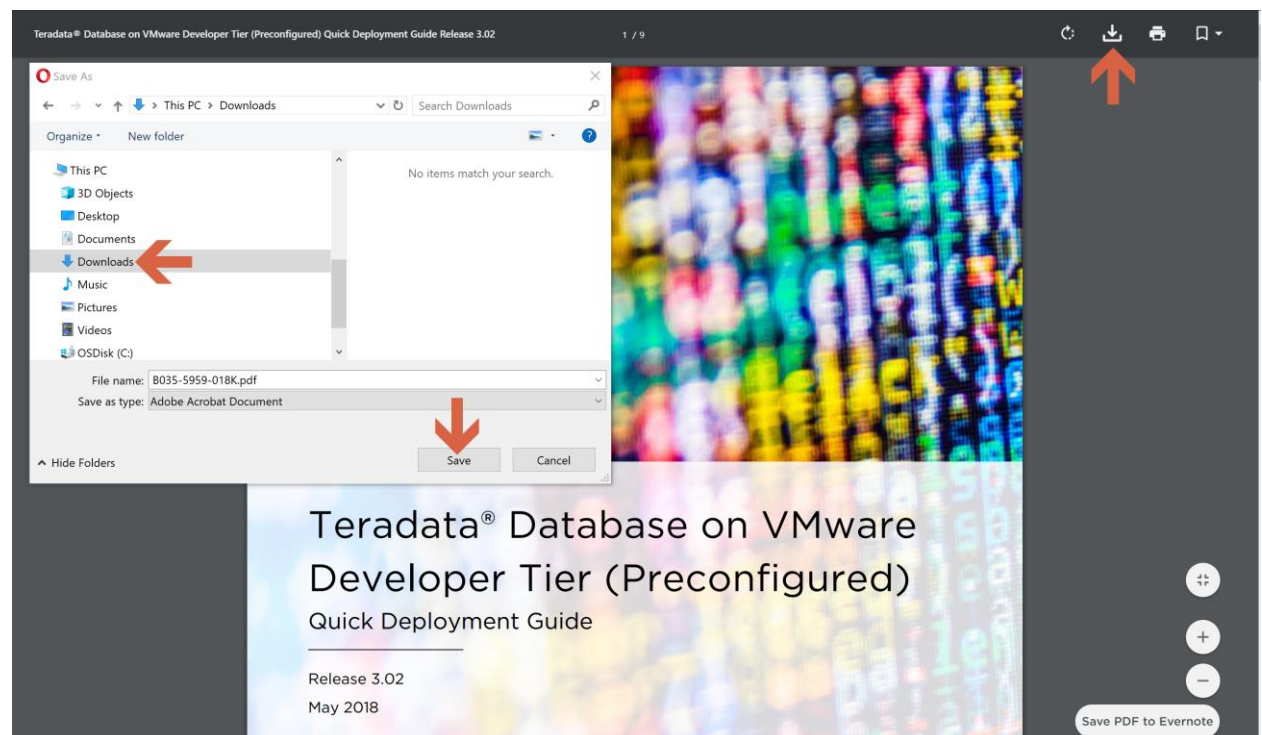
LICENSE REFERENCE: [inserted by Content Management System for each download]

IMPORTANT - READ THIS AGREEMENT CAREFULLY BEFORE INSTALLING OR USING THE SOFTWARE. TERADATA WILL LICENSE THE SOFTWARE TO YOU ONLY IF YOU ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT AND MEET THE CONDITIONS FOR USING THE SOFTWARE DESCRIBED BELOW. BY INSTALLING OR USING THE SOFTWARE, OR BY CLICKING THE “I AGREE” ICON BELOW, YOU (1) AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, AND (2) REPRESENT AND WARRANT THAT YOU POSSESS THE AUTHORITY TO ENTER INTO THIS AGREEMENT ON BEHALF OF YOU, YOUR EMPLOYER (WHEN ACTING ON BEHALF OF YOUR EMPLOYER), AND/OR A TERADATA-AUTHORIZED LICENSEE (WHEN YOU AND YOUR EMPLOYER ARE ACTING ON BEHALF OF A TERADATA-AUTHORIZED LICENSEE). IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT, CLICK THE “CANCEL” ICON BELOW AND DO NOT INSTALL OR USE THE SOFTWARE.

IMPORTANT - BY DOWNLOADING THE SOFTWARE:



Save the file to a location on your computer.



Back on the [Teradata on VMware Developer Tier Preconfigured](#) page, click on the Database Template.

teradata. Downloads

Search


ALL DOWNLOADS DATABASE DOWNLOADS


Teradata on VMware Developer Tier Preconfigured

Release 16.20 - 23 May 2018

Tags: vmware express

Teradata Database on VMware - Developer Tier Preconfigured

**Teradata Database on VMware Developer Tier Preconfigured - Getting Started Guide**

**Teradata Database on VMware Developer Tier Preconfigured - Database Template for 16.20**

Version: 16.20
Released: 23 May 2018
TTU: 16.20
OS: Linux VMware x86 64-bit
Teradata: 16.20

Scroll down to the bottom of the License Agreement, and click on “I Agree”.

License Agreement

Specific Terms of Use - License Agreement for Teradata Database on VMware - Developer Tier Preconfigured

License Reference: 200924/219099 (License for Teradata Developer Tier) @ 200774/78/1545290987

SPECIFIC TERMS OF USE

LICENSE AGREEMENT

PRODUCT: Teradata Analytics Platform

LICENSE REFERENCE: [inserted by Content Management System for each download]

IMPORTANT - READ THIS AGREEMENT CAREFULLY BEFORE INSTALLING OR USING THE SOFTWARE. TERADATA WILL LICENSE THE SOFTWARE TO YOU ONLY IF YOU ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT AND MEET THE CONDITIONS FOR USING THE SOFTWARE DESCRIBED BELOW. BY INSTALLING OR USING THE SOFTWARE, OR BY CLICKING THE “I AGREE” ICON BELOW, YOU (1) AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, AND (2) REPRESENT AND WARRANT THAT YOU POSSESS THE AUTHORITY TO ENTER INTO THIS AGREEMENT ON BEHALF OF YOU, YOUR EMPLOYER (WHEN ACTING ON BEHALF OF YOUR EMPLOYER), AND/OR A TERADATA-AUTHORIZED LICENSEE (WHEN YOU AND YOUR EMPLOYER ARE ACTING ON BEHALF OF A TERADATA-AUTHORIZED LICENSEE). IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT, CLICK THE “CANCEL” ICON BELOW AND DO NOT INSTALL OR USE THE SOFTWARE.

IMPORTANT - BY DOWNLOADING THE SOFTWARE:

Refer to the Export Manual for Novell products for more information on exporting Novell software. You can download a copy from <http://www.novell.com/info/exports/> or obtain a copy from your local Novell office.

U.S. Government Restricted Rights. Use, duplication, or disclosure by the U.S. Government is subject to the restrictions in FAR 52.227-14 (June 1987) Alternate III (June 1987), FAR 52.227-19 (June 1987), or DFARS 252.227-7013 (b)(3) (Nov 1995), or applicable successor clauses. Contractor/Manufacturer is Novell, Inc., 1800 South Novell Place, Provo, Utah 84606.

Other. The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

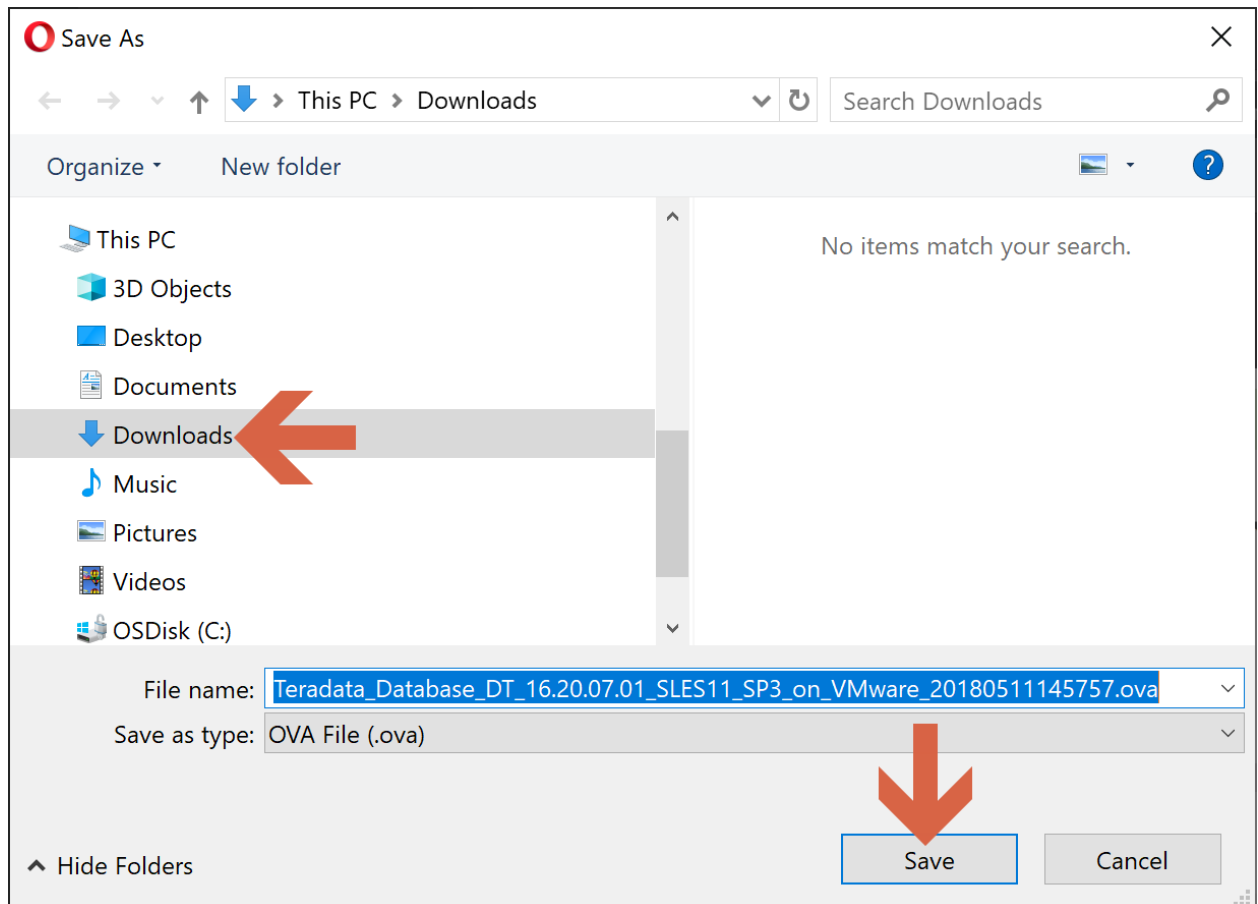
Copyright 1993, 2000-2006 Novell, Inc. All Rights Reserved.
(020706)

Novell and SUSE are registered trademarks, and the SUSE logo is a trademark, of Novell, Inc. in the United States and other countries. Linux is a registered trademark of Linus Torvalds.

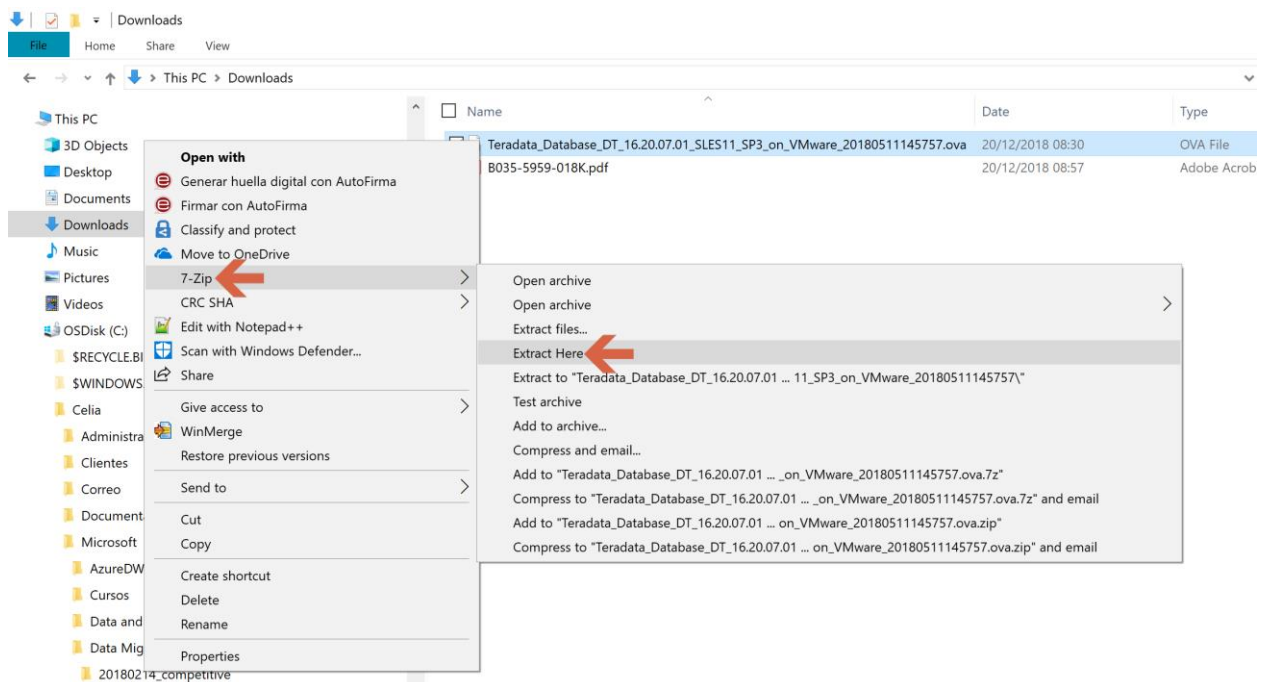
**Click "Cancel" if you do not agree to the terms and conditions of this Agreement.
Clicking "I Agree" will start the download immediately.**

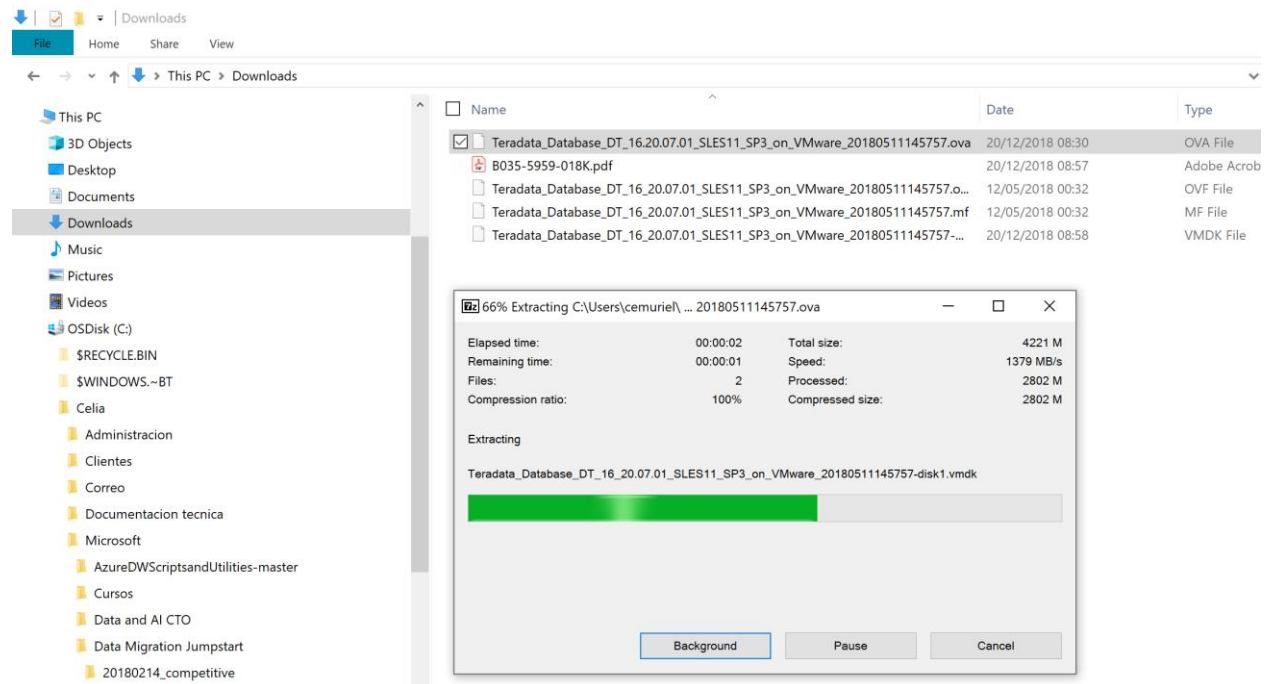
I Agree **Cancel**

Save the file to a directory on your computer.

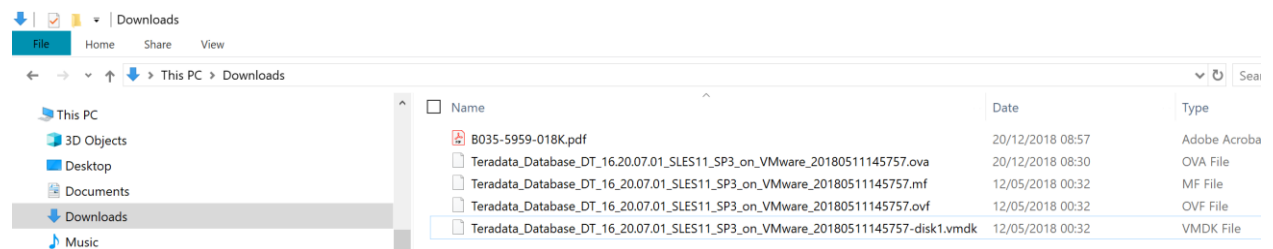


In our laptop, we go to the directory where we downloaded the OVA file, and we extract it. We use 7z to unzip.





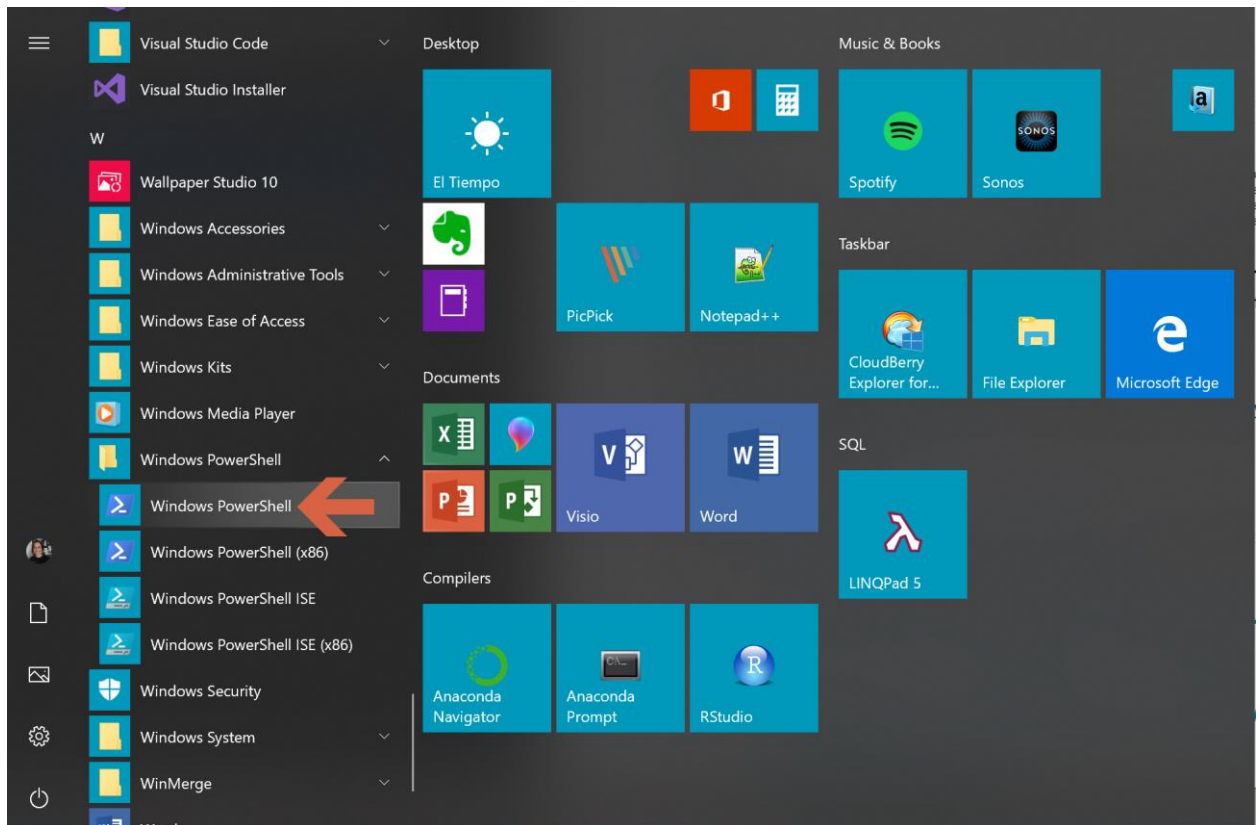
After uncompressing the OVA file, your directory should look like this.



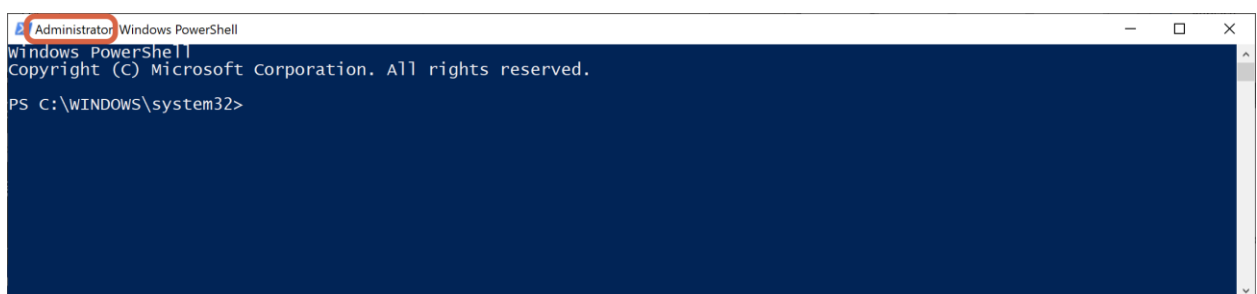
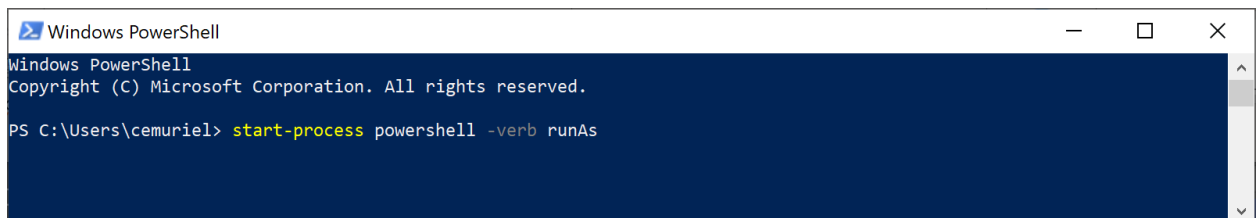
3. Converting the Teradata virtual machine to Hyper-V

To turn the image to Hyper-V format, we are going to use [Microsoft Virtual Machine Converter](#). If you don't have it yet, [download it and install](#) it.

Once [Microsoft Virtual Machine Converter](#) is installed, we open PowerShell.



We are going to need Administrator privileges to convert the VMDK image, so we should open PowerShell as an administrator, or we run next command: *start-process powershell -verb runAs*



Now we import [Microsoft Virtual Machine Converter](#) into PowerShell: *Import-Module "C:\Program Files\Microsoft Virtual Machine Converter\MvmcCmdlet.psd1"*

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\WINDOWS\system32> Import-Module "C:\Program Files\Microsoft Virtual Machine Converter\VMVcmdlet.ps1"
PS C:\WINDOWS\system32>
```

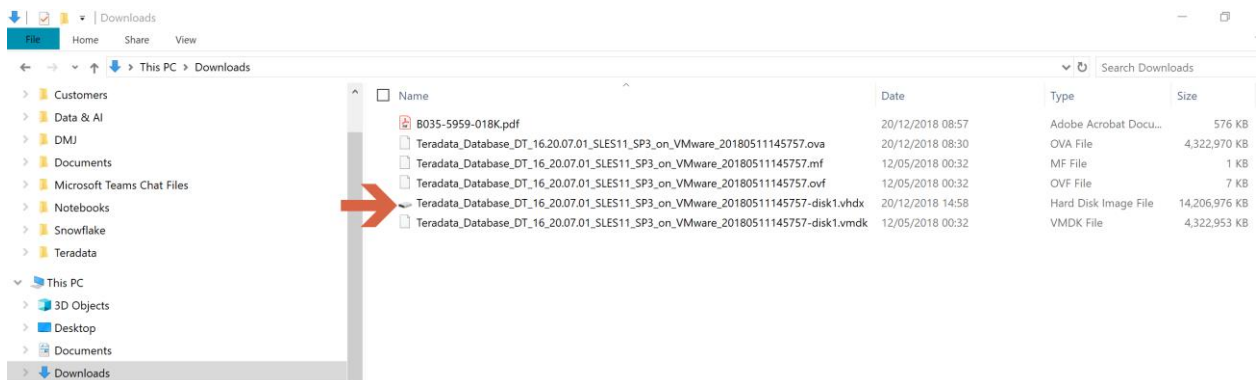
We can finally convert the VMDK image into the VHDX one. We are going to execute the command from the directory where the image is.

*ConvertTo-MVMCVirtualHardDisk -SourceLiteralPath
.\Teradata_Database_DT_16_20.07.01_SLES11_SP3_on_VMware_20180511145757-disk1.vmdk -
DestinationLiteralPath . -VHDFormat Vhdx -VHDDType DynamicHardDisk*

```
Administrator: Windows PowerShell
PS C:\WINDOWS\system32> cd C:\Users\cemuriel\Downloads
PS C:\Users\cemuriel\Downloads> ConvertTo-MVMCVirtualHardDisk -SourceLiteralPath .\Teradata_Database_DT_16_20.07.01_SLES11_SP3_on_VMware_20180511145757-disk1.vmdk -DestinationLiteralPath . -VHDFormat Vhdx -VHDDType DynamicHardDisk
Destination                                     Source
-----
C:\Users\cemuriel\Downloads\Teradata_Database_DT_16_20.07.01_SLES11_SP3_on_VMware_20180511145757-disk1.vhdx .\Terada...

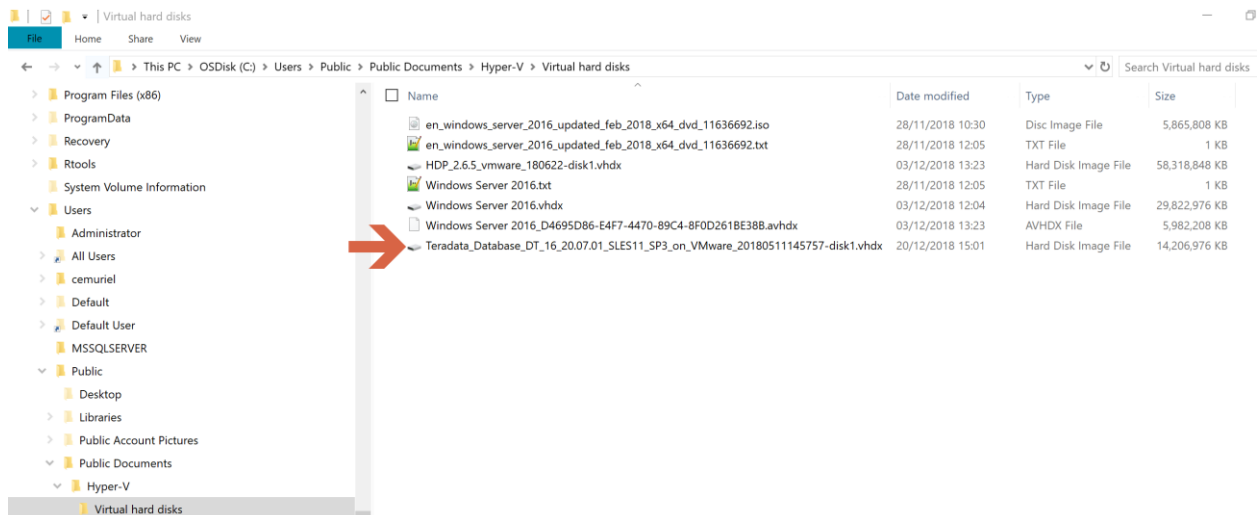
PS C:\Users\cemuriel\Downloads>
```

After the conversion, we have the VHDX image in the same directory with the VMDK image.

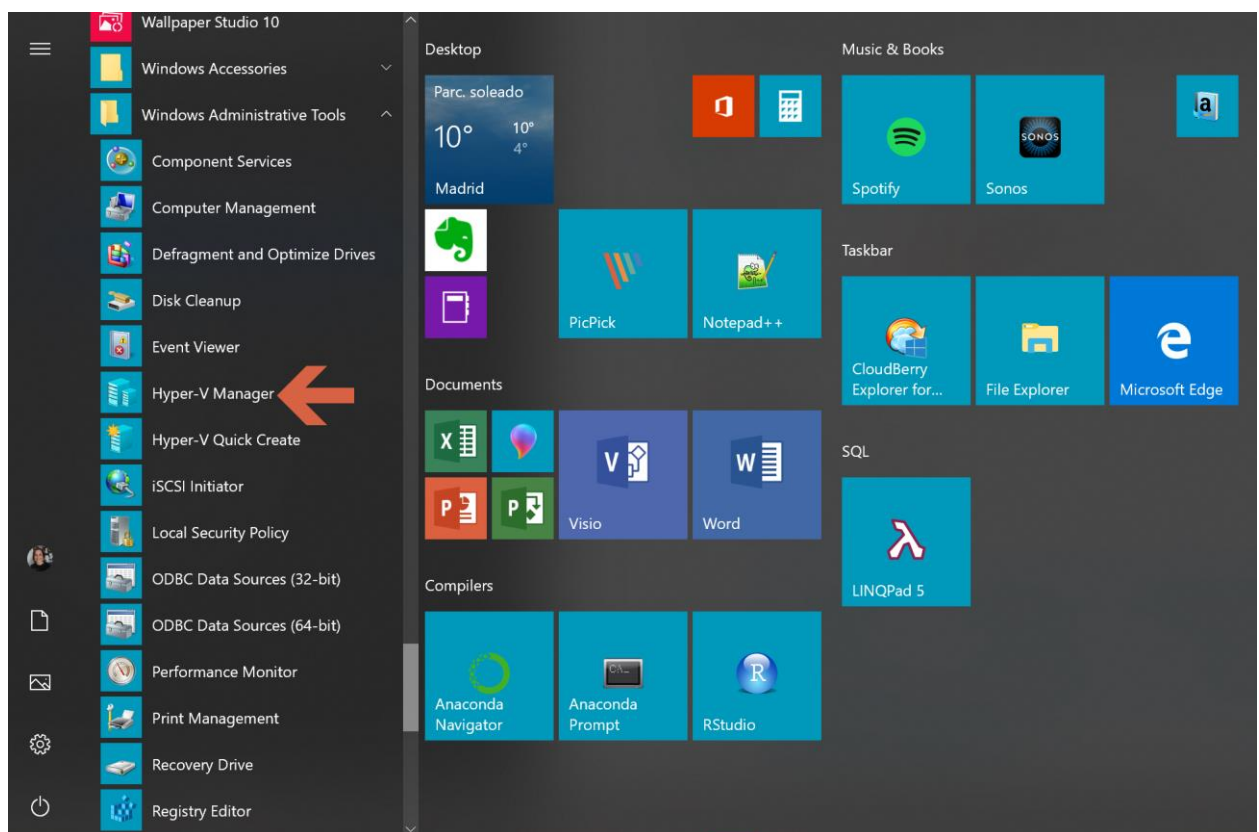


We are going to use the VHDX image to create a Hyper-V virtual machine. Hyper-V's default directory is C:\Users\Public\Documents\Hyper-V\Virtual hard disks. We are going to place our VHDX image in this directory.

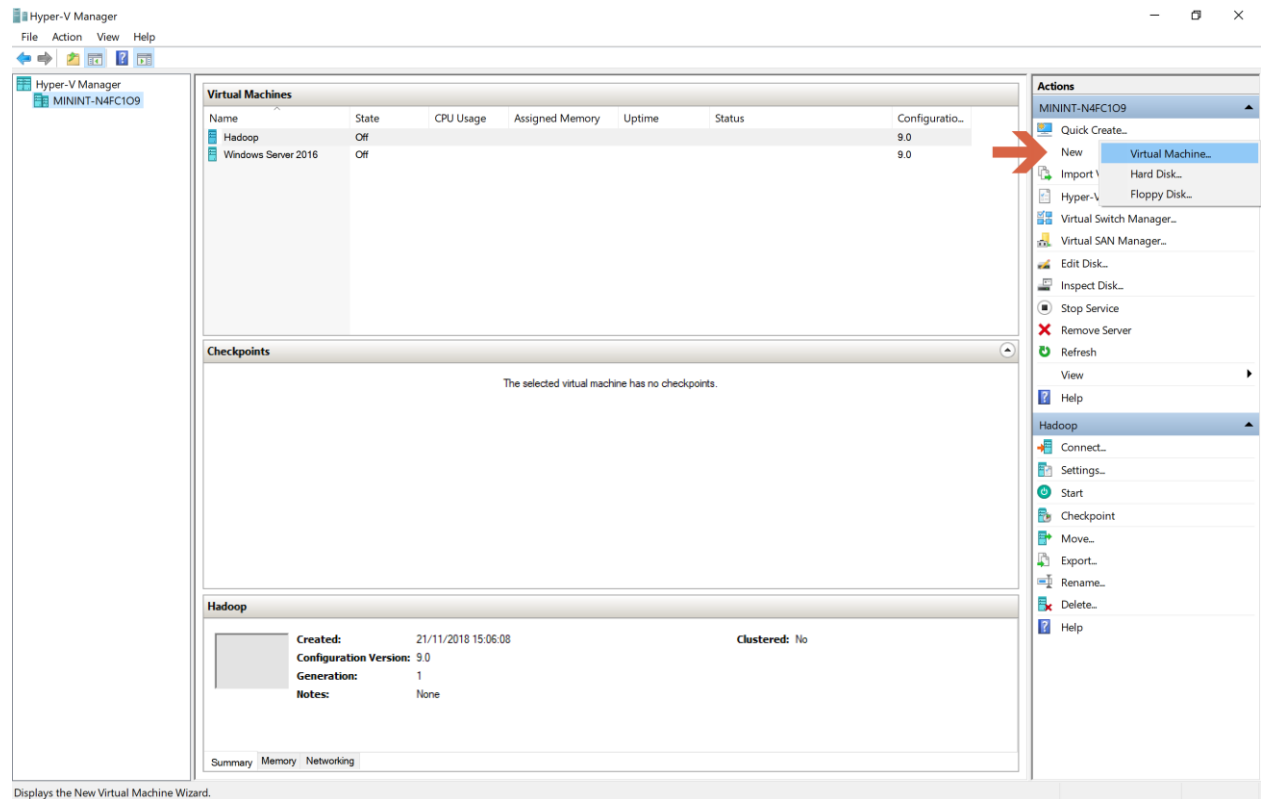
Cookbook to transform a Teradata VMware Virtual Machine into a Hyper-V one Celia Muriel - celiamuriel.com



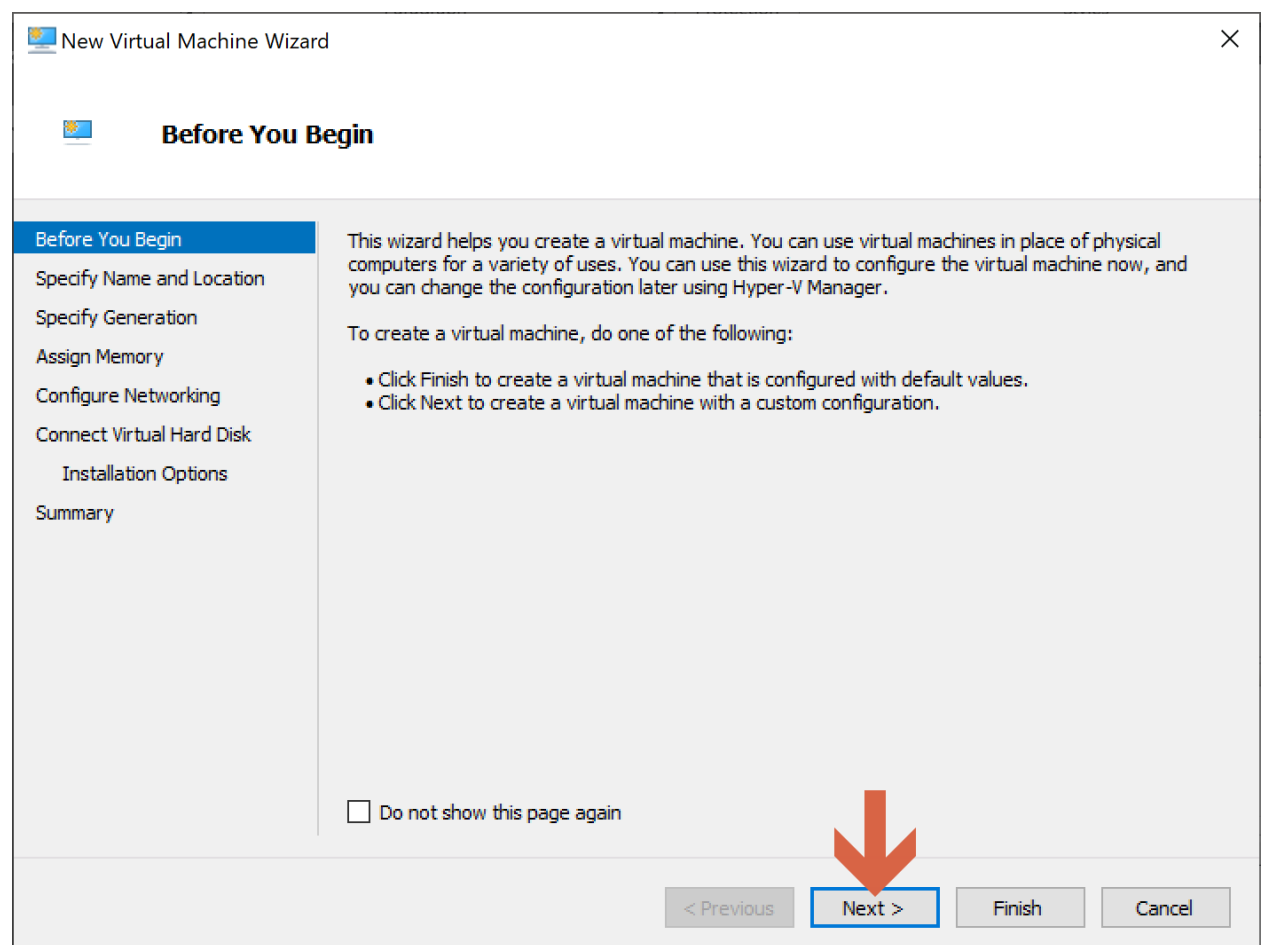
We open the [Hyper-V Manager](#).



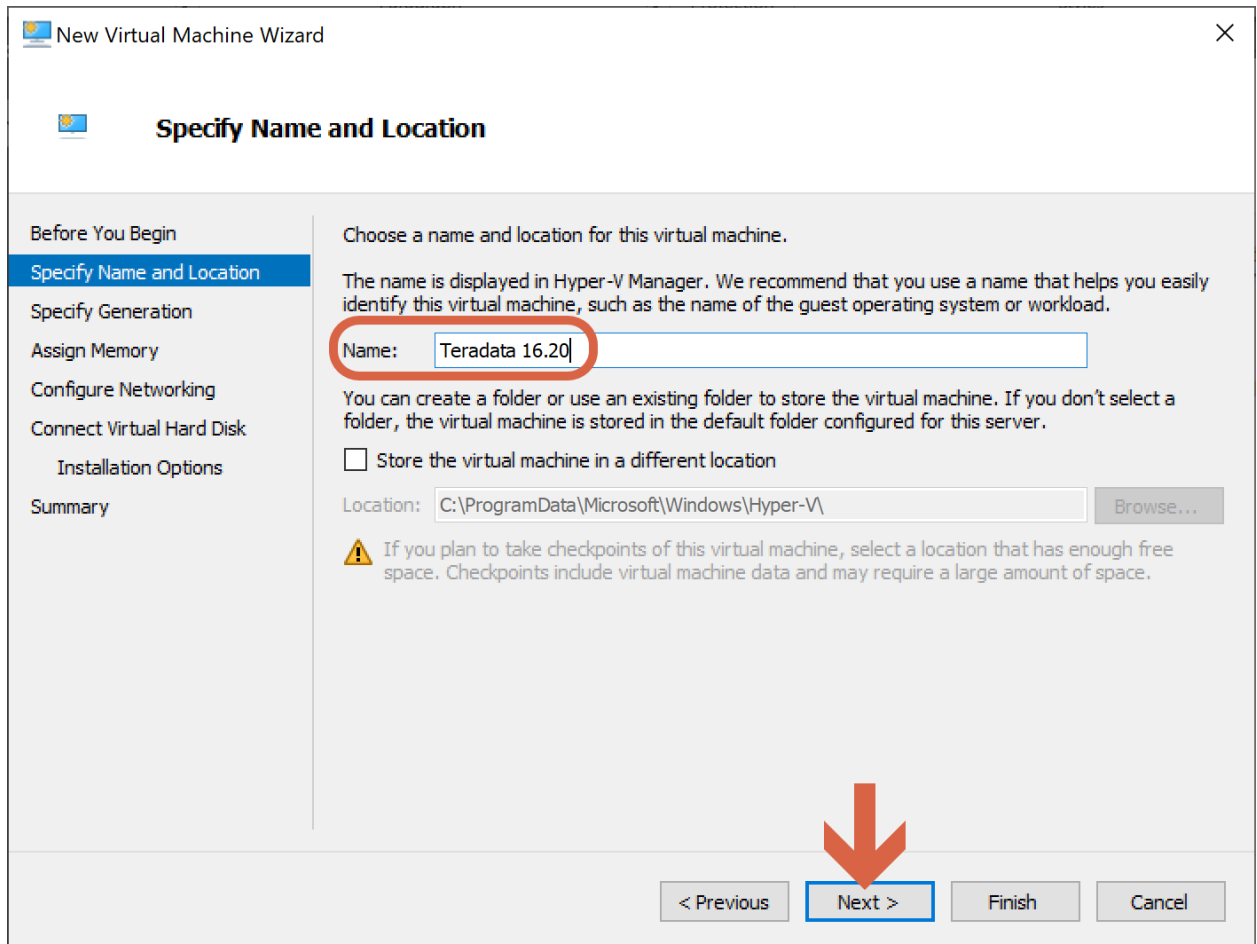
We create a new virtual machine.



Click “Next” on the “Before you Begin” window.



Name the new Hyper-V virtual machine.



The screenshot shows the 'New Virtual Machine Wizard' window, specifically the 'Specify Name and Location' step. The window has a title bar with a close button. On the left is a navigation pane with steps: 'Before You Begin', 'Specify Name and Location' (selected), 'Specify Generation', 'Assign Memory', 'Configure Networking', 'Connect Virtual Hard Disk', 'Installation Options', and 'Summary'. The main area contains instructions: 'Choose a name and location for this virtual machine. The name is displayed in Hyper-V Manager. We recommend that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or workload.' Below this, the 'Name' field is set to 'Teradata 16.20' and is circled in red. A checkbox 'Store the virtual machine in a different location' is unchecked. The 'Location' field shows 'C:\ProgramData\Microsoft\Windows\Hyper-V\' with a 'Browse...' button. A warning icon and text state: 'If you plan to take checkpoints of this virtual machine, select a location that has enough free space. Checkpoints include virtual machine data and may require a large amount of space.' At the bottom, there are four buttons: '< Previous', 'Next >' (highlighted with a blue border and a large red arrow pointing down to it), 'Finish', and 'Cancel'.

New Virtual Machine Wizard

Specify Name and Location

Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Installation Options
Summary

Choose a name and location for this virtual machine.

The name is displayed in Hyper-V Manager. We recommend that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or workload.

Name: Teradata 16.20

You can create a folder or use an existing folder to store the virtual machine. If you don't select a folder, the virtual machine is stored in the default folder configured for this server.

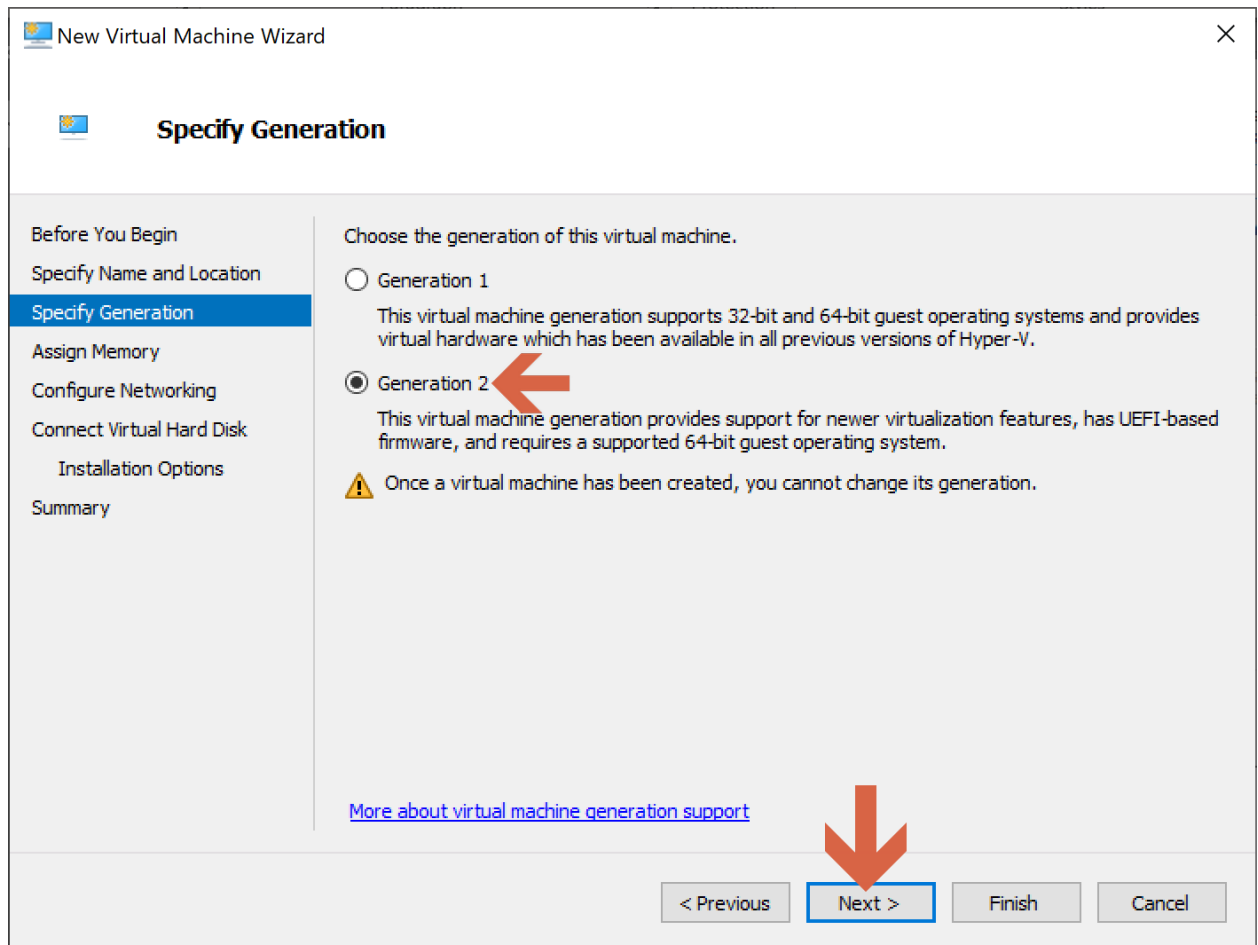
☐ Store the virtual machine in a different location

Location: C:\ProgramData\Microsoft\Windows\Hyper-V\ Browse...

⚠ If you plan to take checkpoints of this virtual machine, select a location that has enough free space. Checkpoints include virtual machine data and may require a large amount of space.

< Previous Next > Finish Cancel

We choose the virtual machine generation.



We choose the memory for the virtual machine according to our PC's capabilities.

New Virtual Machine Wizard

Assign Memory

Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Installation Options
Summary

Specify the amount of memory to allocate to this virtual machine. You can specify an amount from 32 MB through 12582912 MB. To improve performance, specify more than the minimum amount recommended for the operating system.

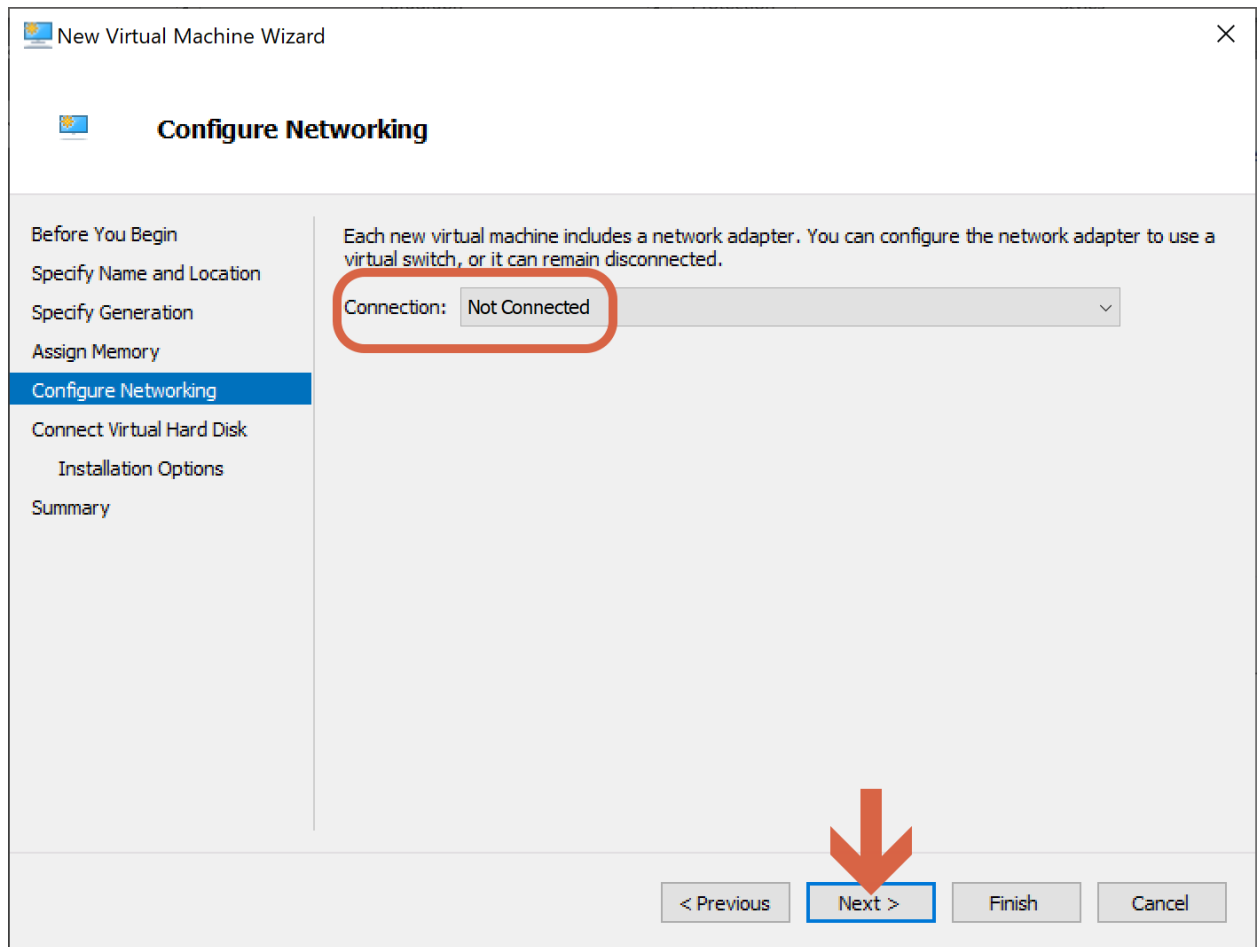
Startup memory: MB

☒ Use Dynamic Memory for this virtual machine.

i When you decide how much memory to assign to a virtual machine, consider how you intend to use the virtual machine and the operating system that it will run.

< Previous **Next >** Finish Cancel

We will set up the network connection after the virtual machine has been created.



We connect this new virtual machine with the VHDX image we have just created and copied in the default Hyper-V directory.

```
C:\Users\Public\Documents\Hyper-V\Virtual hard  
disks\Teradata_Database_DT_16_20.07.01_SLES11_SP3_on_VMware_20180511  
145757-disk1.vhdx
```

New Virtual Machine Wizard

Connect Virtual Hard Disk

Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Summary

A virtual machine requires storage so that you can install an operating system. You can specify the storage now or configure it later by modifying the virtual machine's properties.

☐ Create a virtual hard disk
Use this option to create a VHDX dynamically expanding virtual hard disk.

Name: Teradata 16.20.vhdx
Location: C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks\ Browse...
Size: 127 GB (Maximum: 64 TB)

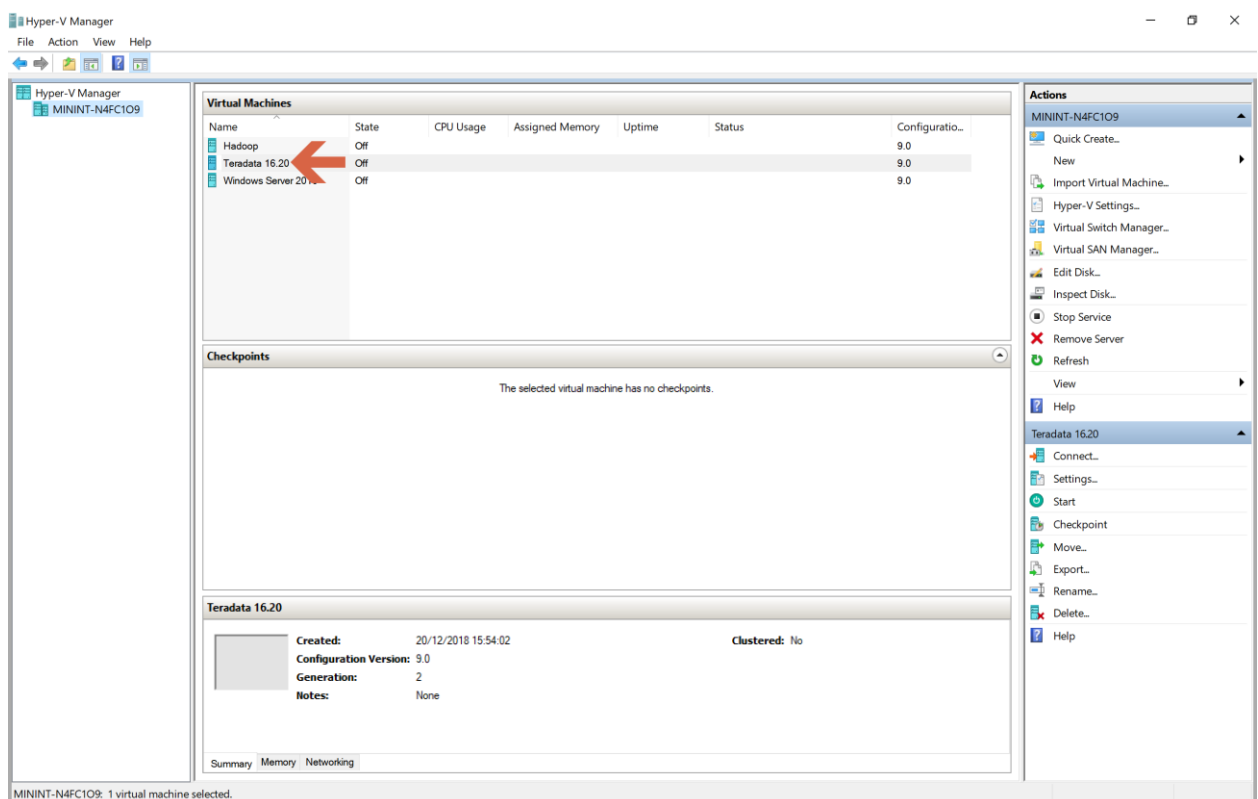
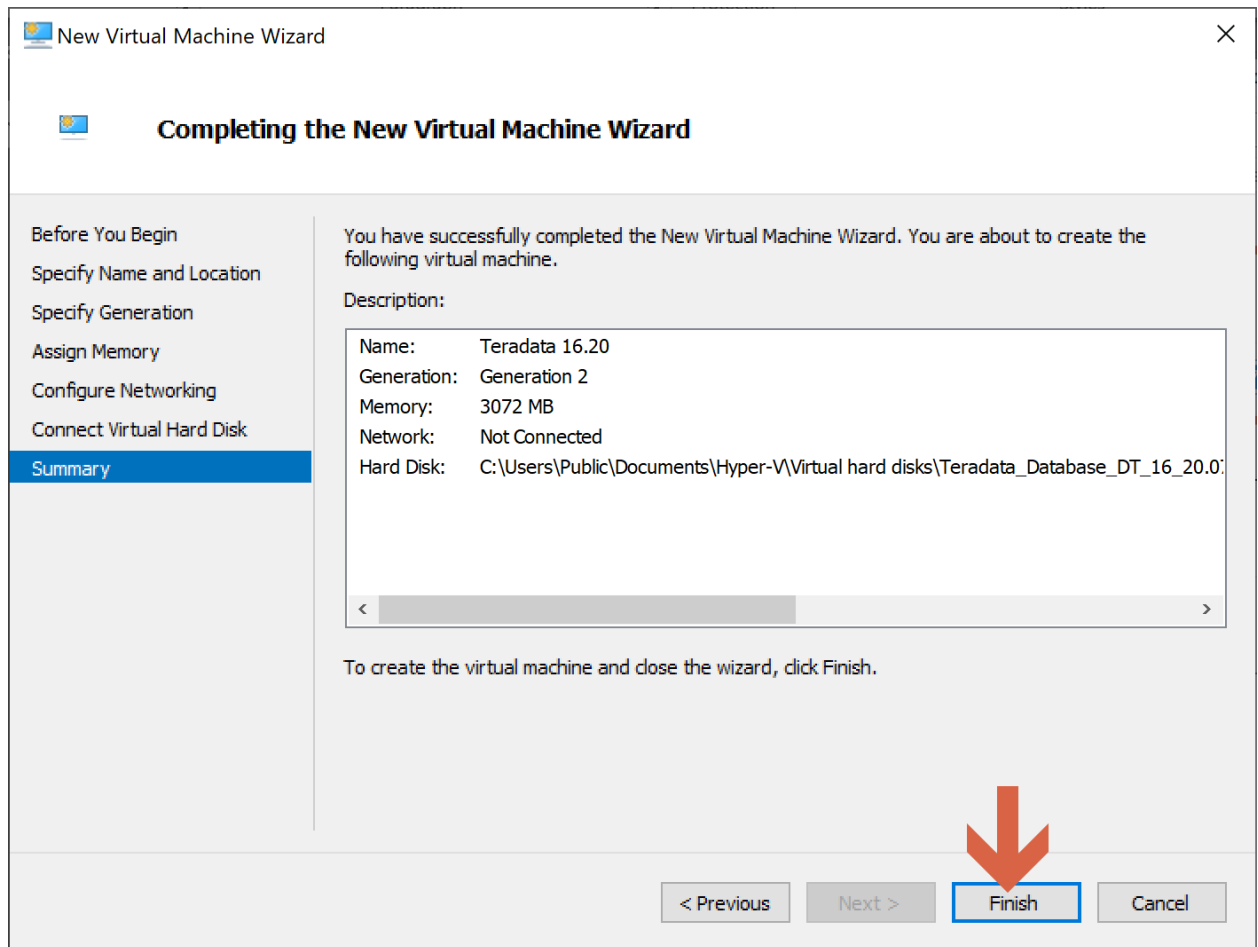
☒ Use an existing virtual hard disk
Use this option to attach an existing VHDX virtual hard disk.

Location: 20.07.01_SLES11_SP3_on_VMware_20180511145757-disk1.vhdx Browse...

☐ Attach a virtual hard disk later
Use this option to skip this step now and attach an existing virtual hard disk later.

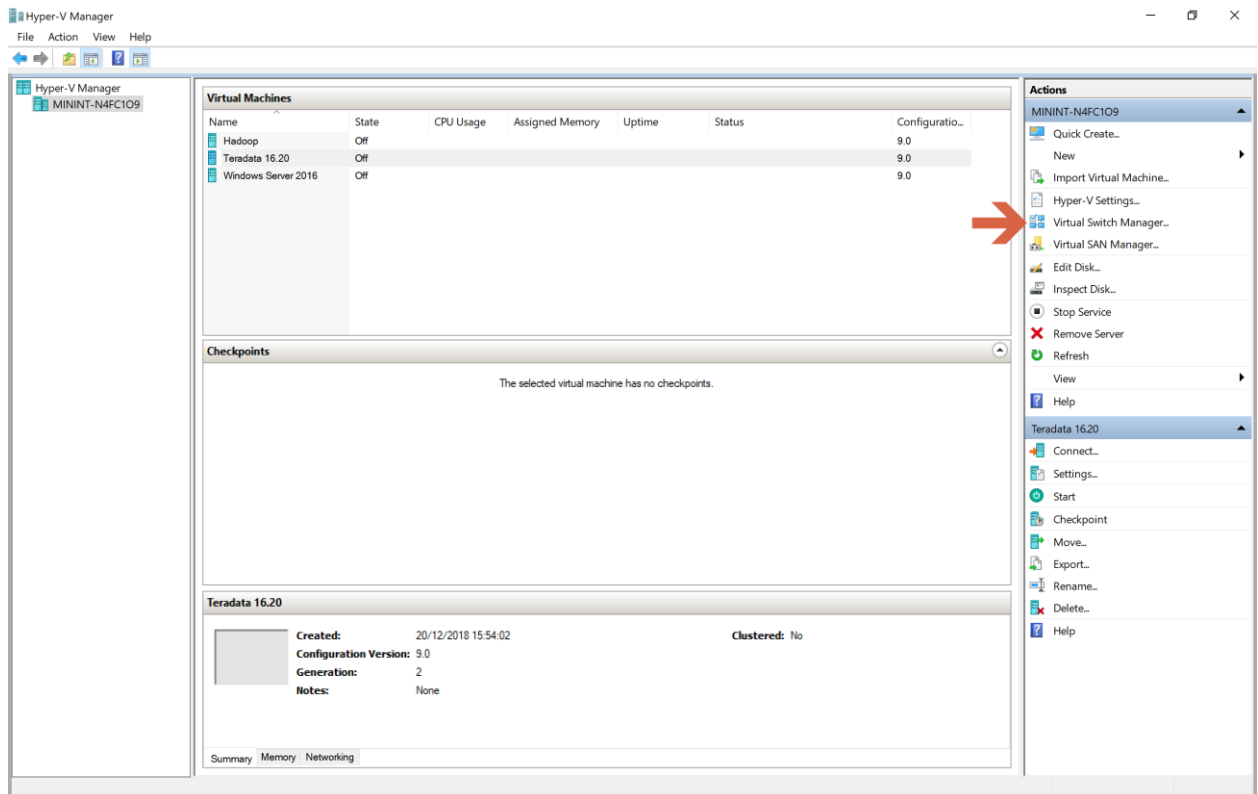
< Previous Next > Finish Cancel

We click on "Finish" and wait to have our new Teradata 16.20 virtual machine ready.

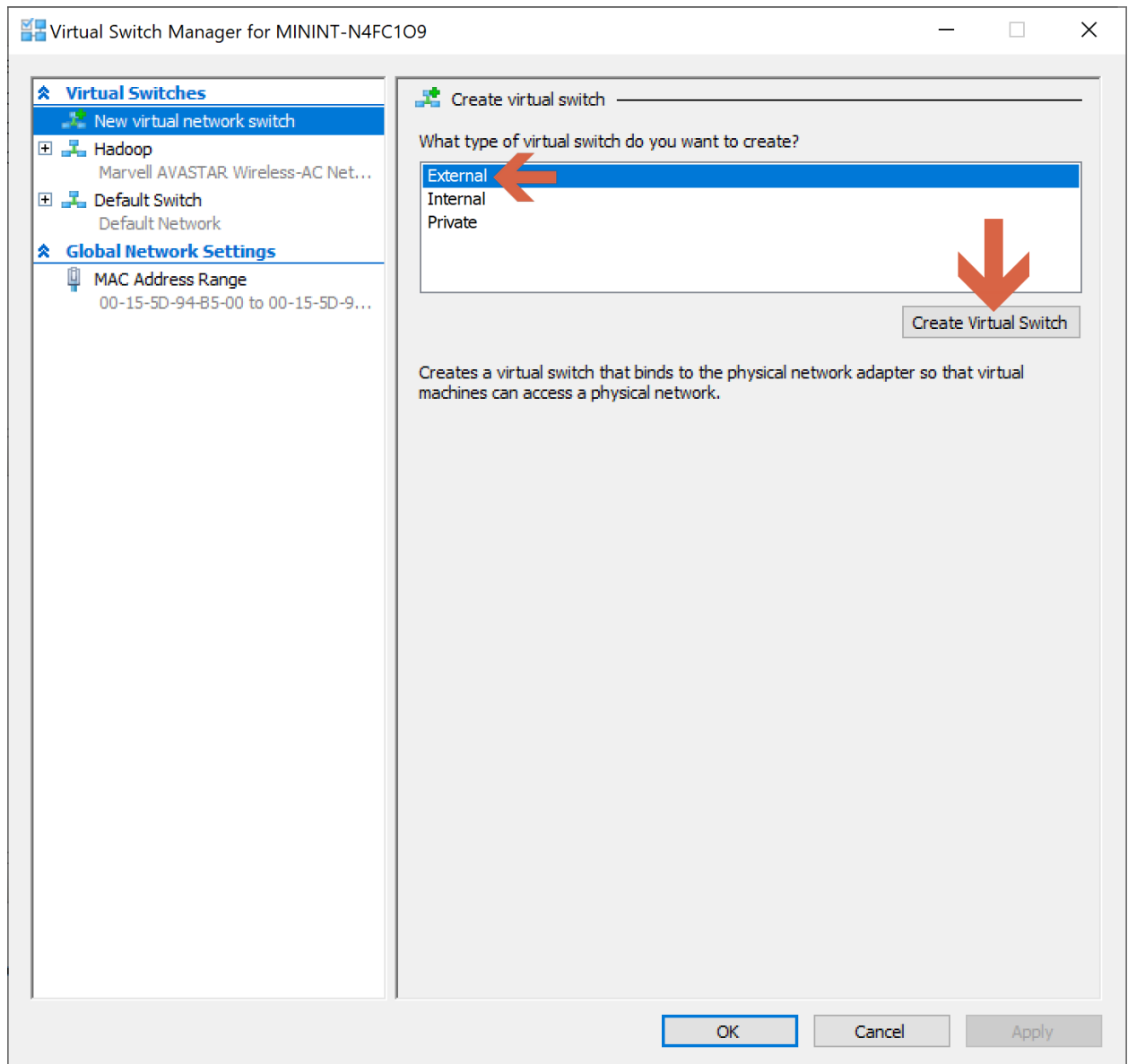


We open the Virtual Switch Manager.

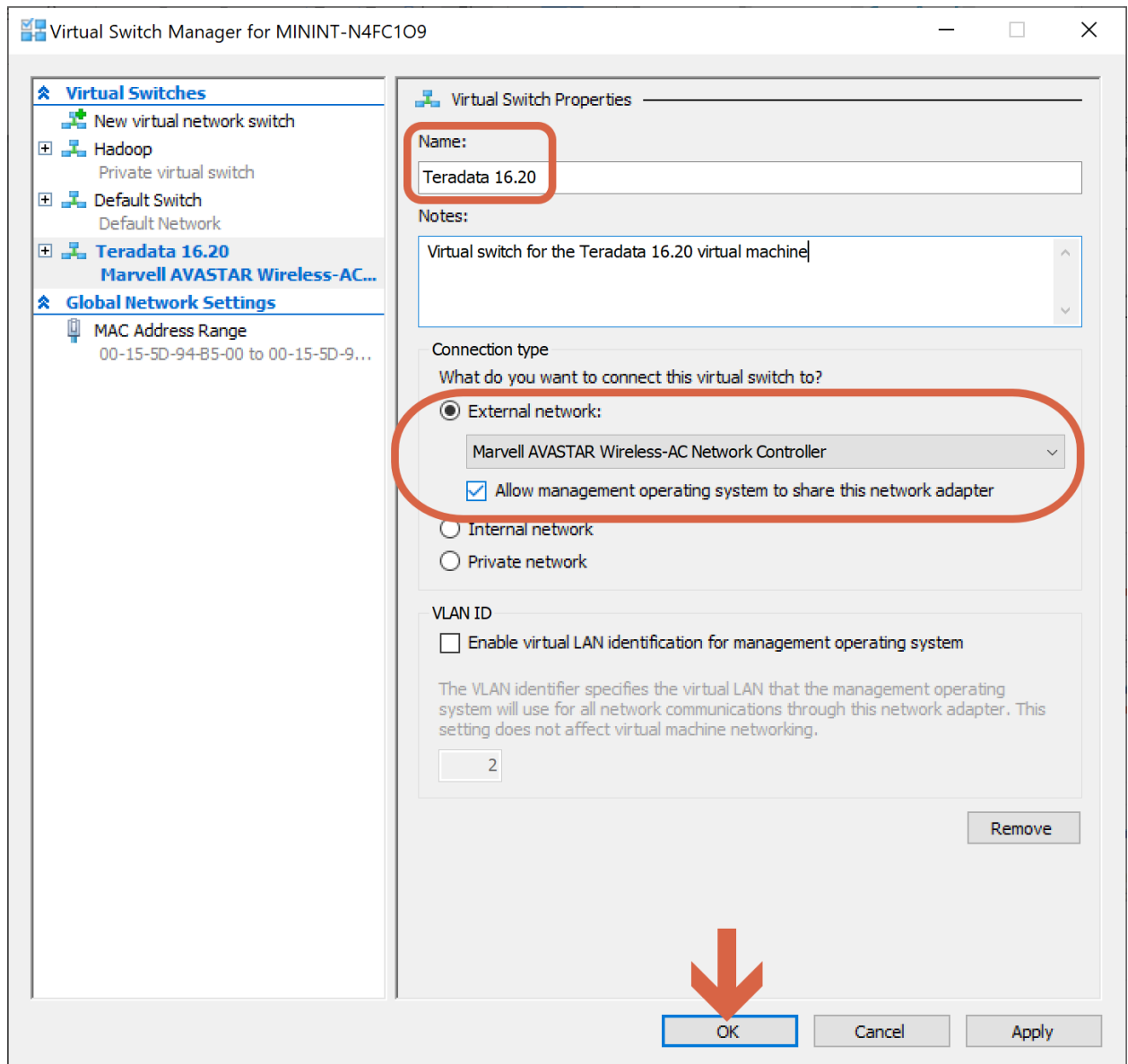
Cookbook to transform a Teradata VMware Virtual Machine into a Hyper-V oneCelia Muriel - celiamuriel.com



We choose “External” and click on “Create Virtual Switch”.

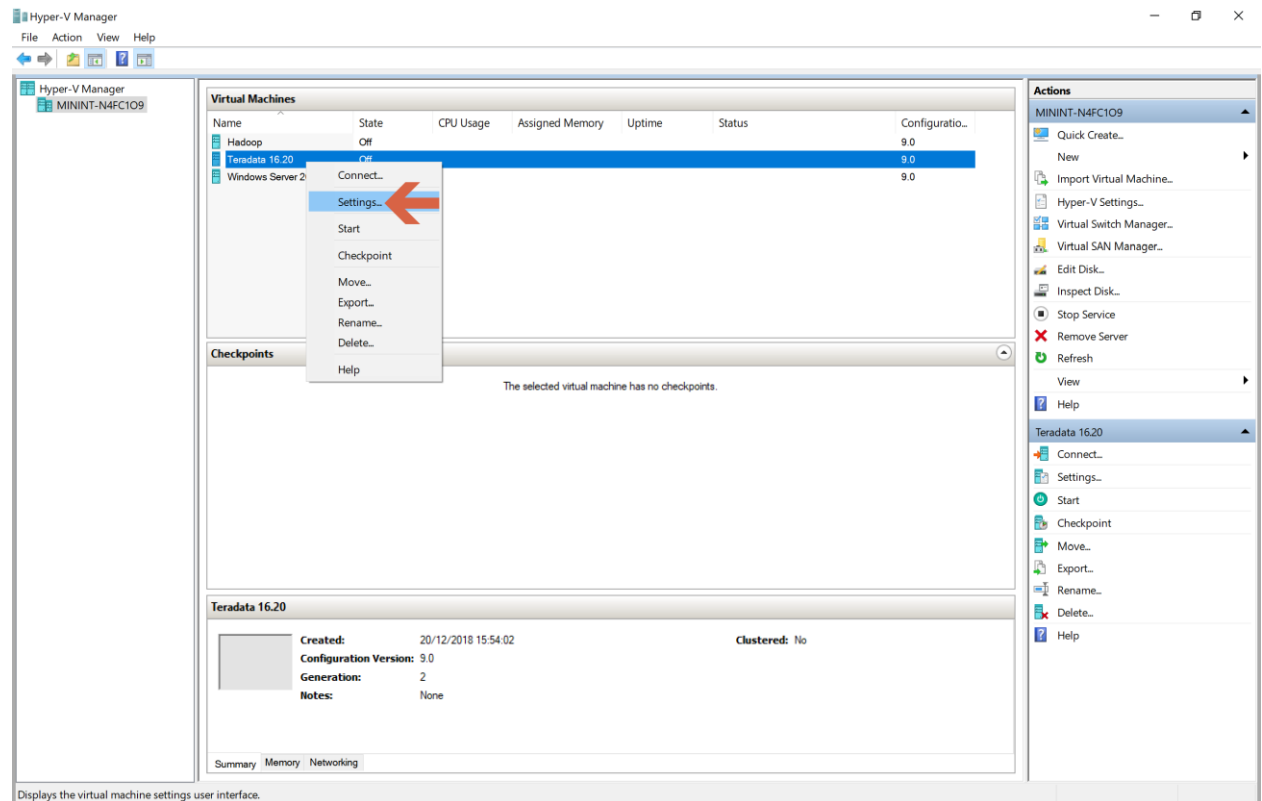


We name the virtual switch, confirm that it is an external network and click "OK".

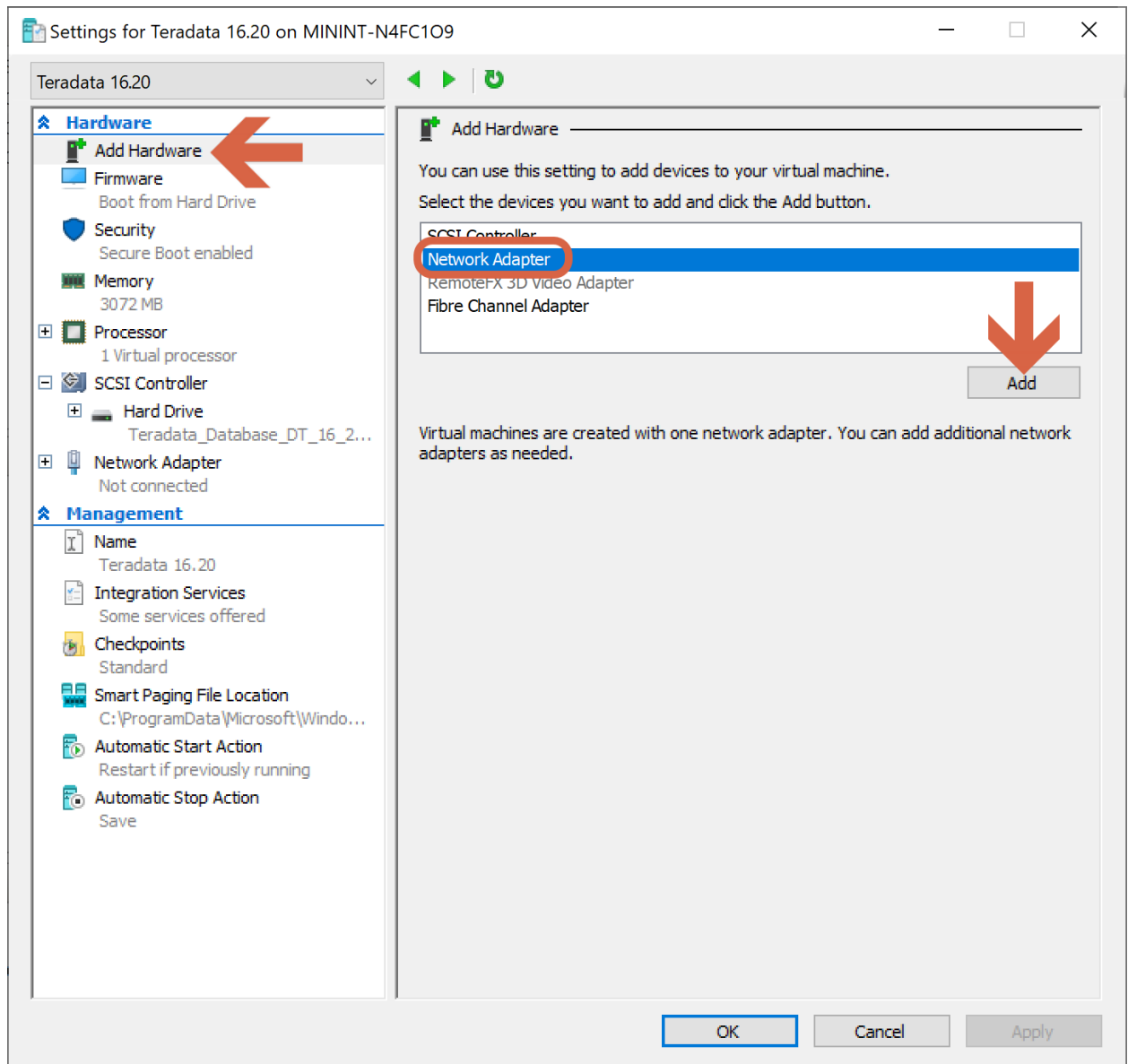


We right-click on the Teradata 16.20 virtual machine and select Settings.

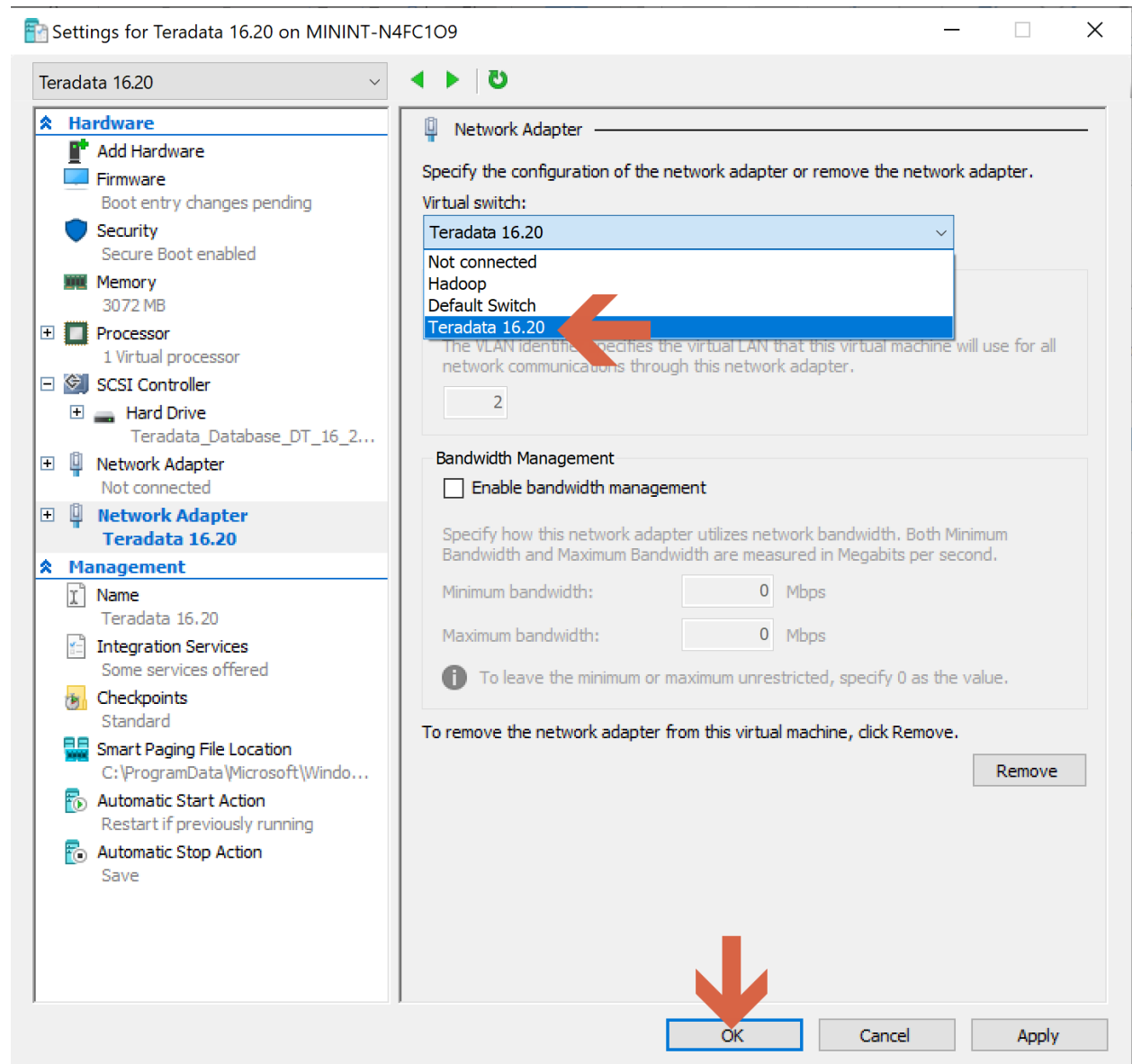
Cookbook to transform a Teradata VMware Virtual Machine into a Hyper-V oneCelia Muriel - celiamuriel.com



We select “Add Hardware”, “Network Adapter” and click on “Add”.



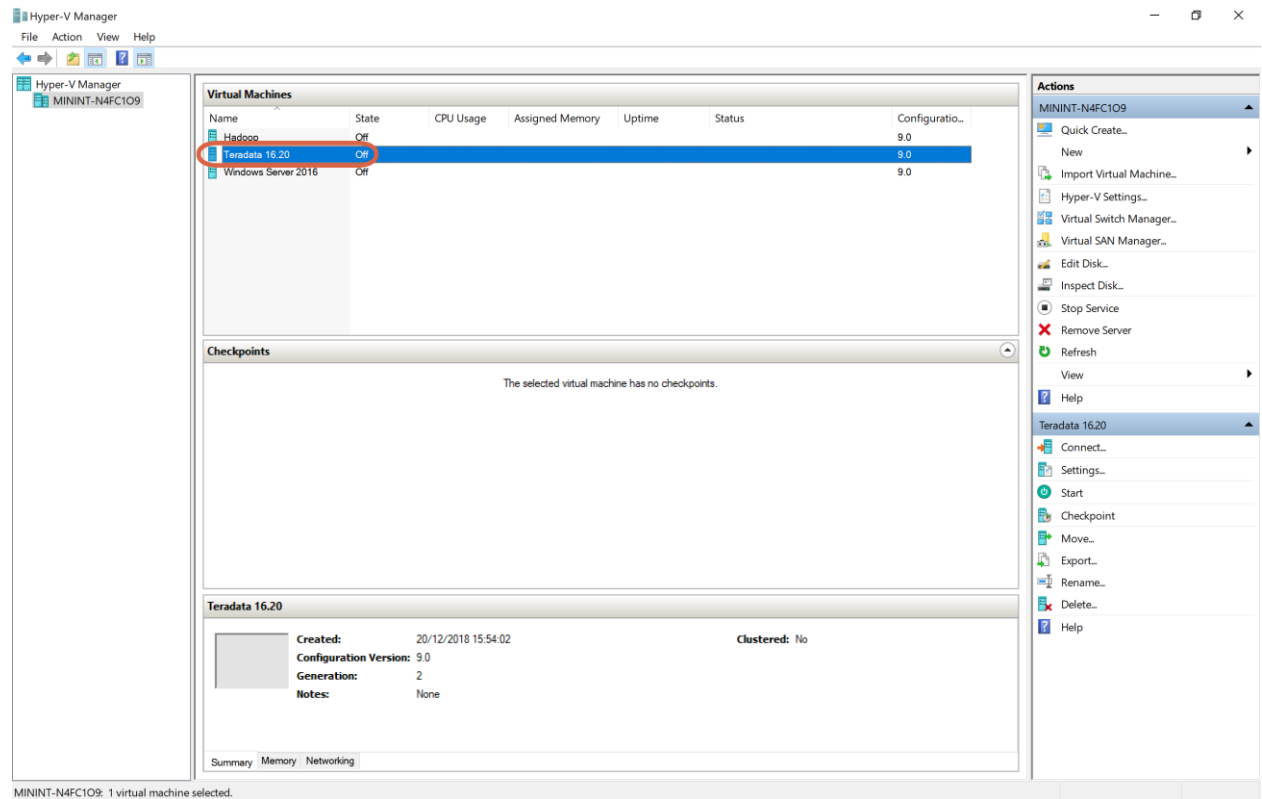
We select the virtual switch we have just created for the Teradata 16.20 virtual machine, and we click "OK".



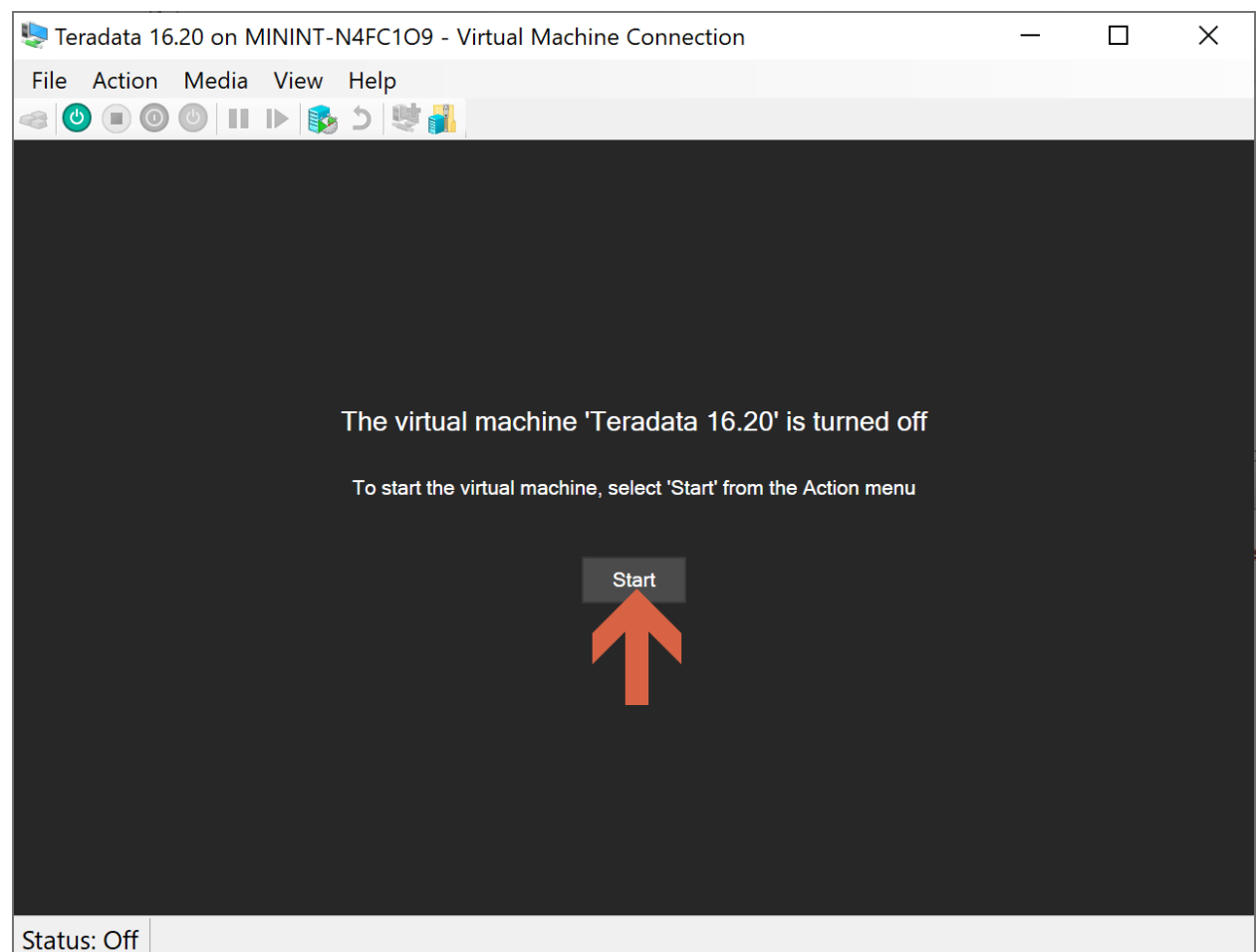
Now our Teradata virtual machine is ready to work with Hyper-V.

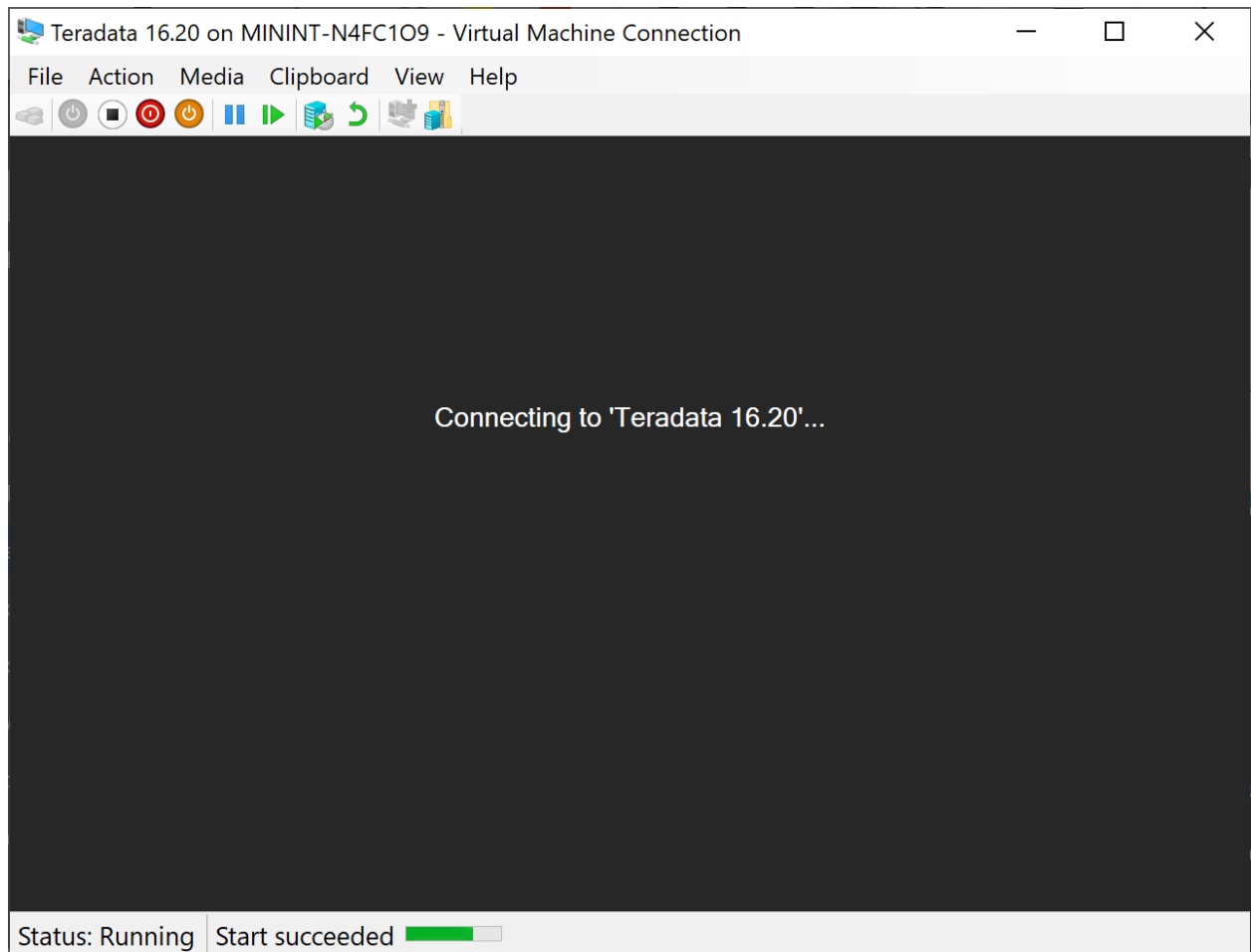
4. Setup the Teradata on Hyper-V (+ Viewpoint)

In the [Hyper-V Manager](#), we double click on the Teradata 16.20 virtual machine.



We click on "Start".





Network Configuration

When first installing Teradata on Hyper-V environment, there are some basic configuration steps that we need to make based on the IP addresses that are given to the instance when it is started. If at any point during your utilization, you have difficulty in communicating with the virtual machine, you need to check and validate that your network configuration is correct.

We typically use the NAT networking configuration. With this, the virtual machine manages the underlying virtual network for the instances and is the gateway for managing all inbound and outbound network traffic. This gateway provides the DHCP service to assign an IP address to the Teradata Express instance and will also provide the DNS services to resolve web domain names to their IP address. We'll need to first get the instance IP address as well as this gateway address. We'll do this using some basic Linux terminal command line utilities.

Double-click the "Gnome Terminal" icon to launch the terminal session.

The IP address assigned to your Teradata Express image is displayed with the `ifconfig` command:

```
# ifconfig eth0
```

This should result in output similar to this, in which I've bolded the IP address for this instance - **192.168.80.133**. Yours will likely be a different address.

```
eth0 Link encap:Ethernet HWaddr 00:0C:29:FD:D9:5B
inet addr:192.168.80.133 Bcast:192.168.80.255 Mask:255.255.255.0
```

```
inet6 addr: fe80::20c:29ff:fe8d:d95b/64 Scope:Link
UP BROADCAST NOTRAILERS RUNNING MULTICAST MTU:1500 Metric:1
RX packets:381 errors:0 dropped:0 overruns:0 frame:0
TX packets:657 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:47151 (46.0 Kb) TX bytes:73442 (71.7 Kb)
Base address:0x2000 Memory:e8920000-e8940000
```

Now let's find the IP address being used to connect to the VMware gateway using the netstat command. Again, I've bolded the IP address for the gateway - 192.168.80.2. Again, yours will likely be a different address.

route -n does the same as nstat -r

```
# netstat -r
Kernel IP routing table
Destination      Gateway          Genmask         Flags MSS Window irtt
Iface
192.168.80.0      *                255.255.255.0   U 0 0 0 eth0
link-local        *                255.255.0.0     U 0 0 0 eth0
loopback          *                255.0.0.0       U 0 0 0 lo
default           192.168.80.2    0.0.0.0         UG 0 0 0 eth0
```

Now that we have our 2 address, let's check out Linux networking configurations.

First, let's look at the /etc/resolv.conf file. This file contains the address of our domain name server (DNS), which is used to translate network aliases to their IP address. For example, you can't browse the web without translating web domain names to their IP address. Use your favourite editing tool (such as vi) to update this file as I've done here:

```
# cat /etc/resolv.conf
nameserver 192.168.80.2
```

Once this is updated and saved, we can test using the ping utility with a web domain name:

```
# ping yahoo.com
PING yahoo.com (209.191.122.70) 56(84) bytes of data.
64 bytes from irl.fp.vip.mud.yahoo.com (209.191.122.70): icmp_seq=1
ttl=128 time=106 ms
```

The second network configuration change we should make is to support Teradata connectivity. A common Teradata configuration used by client computers is to create what we call a 'cop' entry in the hosts file. This allows our connectivity tools to connect to Teradata using aliases instead of IP address. An example is the BTEQ query tool included in the Teradata Express image. I can create an alias name "localTD" in my /etc/hosts file with the pattern '{alias}cop1', or 'localTDcop1' as seen here mapped to my Teradata Express IP address:

```
# cat hosts
# hosts This file describes a number of hostname-to-address
# mappings for the TCP/IP subsystem. It is mostly
# used at boot time, when no name servers are running.
# On small systems, this file can be used instead of a
# "named" name server.
# Syntax:
```

```
#
# IP-Address Full-Qualified-Hostname Short-Hostname
#

127.0.0.1 localhost
192.168.80.133 localTDcop1
```

With this new 'cop' entry, my client tools can connect to Teradata using the alias instead of IP address. Here's an example using the BTEQ client on the Teradata Express instance. I've highlighted the alias entry. (Remember, though, if you want to use this alias from another client such as BTEQ from your Windows host environment, you'll need to create a similar 'cop' entry in its hosts file.)

```
# bteq
Teradata BTEQ 16.20.07.01 for LINUX.
Copyright 2018, Teradata Corporation. ALL RIGHTS RESERVED.
Enter your logon or BTEQ command:
.logon localTD/dbc
```

```
.logon localTD/dbc
Password:
```

```
*** Logon successfully completed.
*** Teradata Database Release is 13.00.00.19
*** Teradata Database Version is 13.00.00.19
*** Transaction Semantics are BTET.
*** Character Set Name is 'ASCII'.

*** Total elapsed time was 1 second.
```

```
BTEQ -- Enter your DBC/SQL request or BTEQ command:
select * from dbcinfo;
```

```
select * from dbcinfo;
```

```
*** Query completed. 3 rows found. 2 columns returned.
*** Total elapsed time was 1 second.
```

```
InfoKey InfoData
```

```
-----
-----
RELEASE 16.20.07.01
VERSION 16.20.07.01
LANGUAGE SUPPORT MODE Standard
```

```
BTEQ -- Enter your DBC/SQL request or BTEQ command:
.exit
```

```
.exit
*** You are now logged off from the DBC.
*** Exiting BTEQ...
*** RC (return code) = 0
```

With these simple configuration updates, your Teradata Express virtual instance should be ready to go.

Checking Teradata Status

Let's start with the basic status tool, pdestate:

```
1      # pdestate -a
```

If all is well and Teradata is running, you will see this output:

```
1      PDE state is RUN/STARTED.
2      DBS state is 5: Logons are enabled - The system is quiescent
```

Stopping the database

Should you need to stop the database in a controlled manner, the command is:

```
1      # tpareset -x bringing down the database
```

The syntax for this command is `tpareset -x {comment}`, where the comments can be used for logging/auditing purposes to capture the reason that the database was stopped.

Here is output from this command. Notice the prompt as a last check to make sure that this is what you really want to do.

```
1      You are about to shutdown the database
2      on the system
3      's10-1300'
4      Do you wish to continue (default: n) [y,n] y
```

Once the database has been stopped, you can check the status of the database like we did earlier:

```
1      # pdestate -a
2      PDE state is STOP/KILLTASKS.
```

But if there was a problem that halted Teradata instead of a controlled shutdown, you will see this message from pdestate:

```
1      #pdestate -a
2      "down/hardstop" is down
```

Restarting Teradata

To restart Teradata after manually stopping the database or to restart after a 'hardstop' event, run this command:

```
1      # /etc/init.d/tpa start
```

Which should give this output:

```
1      Teradata Database Initiator service is starting...
```

```
2      Teradata Database Initiator service started successfully.
```

To restart Teradata if it is any state other than "down/hardstop" use the command:

```
1      # tpareset -f restarting
```

This asks for a confirmation before beginning the restart process:

```
1      You are about to restart the database
```

```
2      on the system
```

```
3      's10-1300'
```

```
4      Do you wish to continue (default: n) [y,n] y
```

You can then issue the watch the various start up levels by issuing the pdestate command every few seconds..

```
1      # pdestate -a
```

```
2      PDE state is START/RECONCILE.
```

```
1      # pdestate -a
```

```
2      PDE state is START/STARTTPA.
```

```
1      # pdestate -a
```

```
2      PDE state is RUN/STARTED.
```

```
3      DBS state is 1/5: DBS Startup - Voting for Transaction Recovery
```

```
1      # pdestate -a
```

```
2      PDE state is RUN/STARTED.
```

```
3      DBS state is 1/4: DBS Startup - Starting PE Partitions
```

- 1 # pdestate -a
- 2 PDE state is RUN/STARTED.
- 3 DBS state is 5: Logons are enabled - The system is quiescent

Starting Viewpoint Services

Once the RAM is allocated, we can start the Viewpoint services. Click the Computer (Start button) on the lower left corner and choose:

YAST->System->System Services (Runlevel)

To set Viewpoint to automatically start during boot up, Enable the following services:

- postgresql
- dcs
- viewpoint

To manually start the Viewpoint servers:

A. Open up a Linux command prompt and enter the following 3 commands, waiting 1 minute for each to complete.

B. `/etc/init.d/dcs start`

C. `/etc/init.d/postgresql start` can check the status with `/etc/init.d/postgresql status`

D. `/etc/init.d/viewpoint start` You can monitor progress in `/opt/teradata/viewpoint/logs/viewpoint.log`

E. When all is up, just put the ip address in the Firefox Browser window. You can use `ifconfig` in a Linux terminal to see the eth0 IP as (example): 192.168.203.131.

F. the Viewpoint user is admin, and the Viewpoint password is teradata.

You can refer to a previous post I wrote on [setting up Teradata in Azure](#), as these steps are the same

5. Connect to Teradata Express with Teradata Studio Express

[Connect to Teradata Express with Teradata Studio Express](https://celiamuriel.blogspot.com/2019/10/cookbook-to-setup-TD-VM-in-Azure.html#TDStudio)

Cookbook to transform a Teradata VMWare Virtual Machine into a Hyper-V oneCelia Muriel - celiamuriel.com

6. Connect to Teradata Express with other clients – Example BTEQ

[Connect to Teradata Express with other clients – Example BTEQ](https://celiamuriel.blogspot.com/2019/10/cookbook-to-setup-TD-VM-in-Azure.html#BTEQ)