

VMWare Horizon View 8 2006 – Part 4

In this post, I will cover the following:

1. Add RDS Windows Server 2019 to Horizon View Farm
2. Instant Clone Domain Accounts
3. Restrict Remote Access
4. Disable Secure Channel
5. Create Master Image for Instant Clone & Linked Clone
6. Install Horizon Client, Agent, Optimization tool on Instant Clone & Linked Clone Master Image

How Instant Clones work

Instant Clones **shares virtual disks** with the replica VM after the linked clone is created.

Instant Clones are provisioned by creating a running parent VM from the replica VM that **shares the memory** of the running parent VM from which it is created. While information come from the already existing running parent VM, changes are **written to a delta disk**, not to the running parent VM. Once created, the clone is **linked to the replica VM** and not to the running parent VM.








Since Instant Clone share the running parent VM's memory, they are **created in seconds** and instantly powered on and no boot time is required when the cloning process is finished. The Instant Clone is **deleted when the user logs out**.

Note that in Horizon we can create two types of pools. Linked clone which uses composer to provision VDI's which saves the storage.

Instant clone need Horizon Enterprise licenses and uses only connection server, no composer required and its saves storage.

ADD RDS Server:

We have to install Horizon Agent on RDS Server.

Name	Date modified	Type	Size
 Flings	01-Sep-2020 10:41...	File folder	
 Others	21-Aug-2020 9:52 ...	File folder	
 Pictures	21-Aug-2020 9:43 ...	File folder	
 Videos	03-Sep-2020 12:40...	File folder	
 01 VMware-Horizon-Connection-Server-x86_64-8.0.0-16592062.exe	18-Aug-2020 1:29 ...	Application	310,518 KB
 02 VMware-viewcomposer-8.0.0-16455152.exe	18-Aug-2020 1:33 ...	Application	47,035 KB
 03 VMware-Horizon-Agent-x86_64-8.0.0-16530789.exe	18-Aug-2020 1:32 ...	Application	235,019 KB

vmware

Welcome to the Installation Wizard for VMware Horizon Agent

The installation wizard will install VMware Horizon Agent on your computer. To continue, click Next.

VMware
Horizon®

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Product version: 2006

< Back

Next >

Cancel

License Agreement

Please read the following license agreement carefully.

VMWARE END USER LICENSE AGREEMENT

PLEASE NOTE THAT THE TERMS OF THIS END USER LICENSE AGREEMENT SHALL GOVERN YOUR USE OF THE SOFTWARE, REGARDLESS OF ANY TERMS THAT MAY APPEAR DURING THE INSTALLATION OF THE SOFTWARE.

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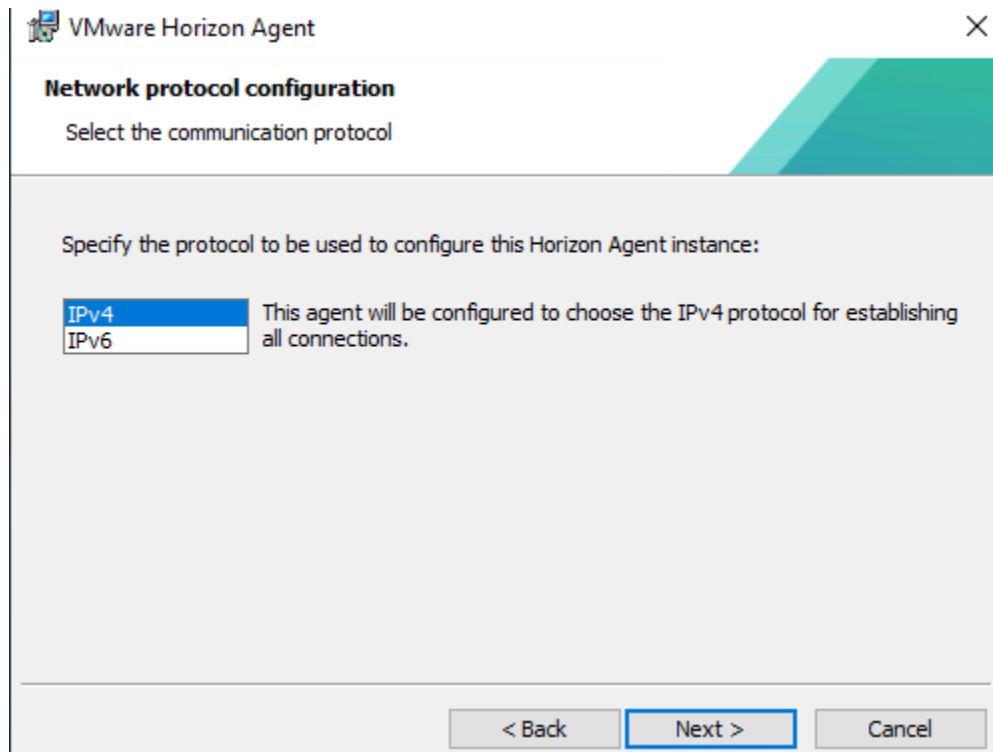
☒ I accept the terms in the license agreement

☐ I do not accept the terms in the license agreement

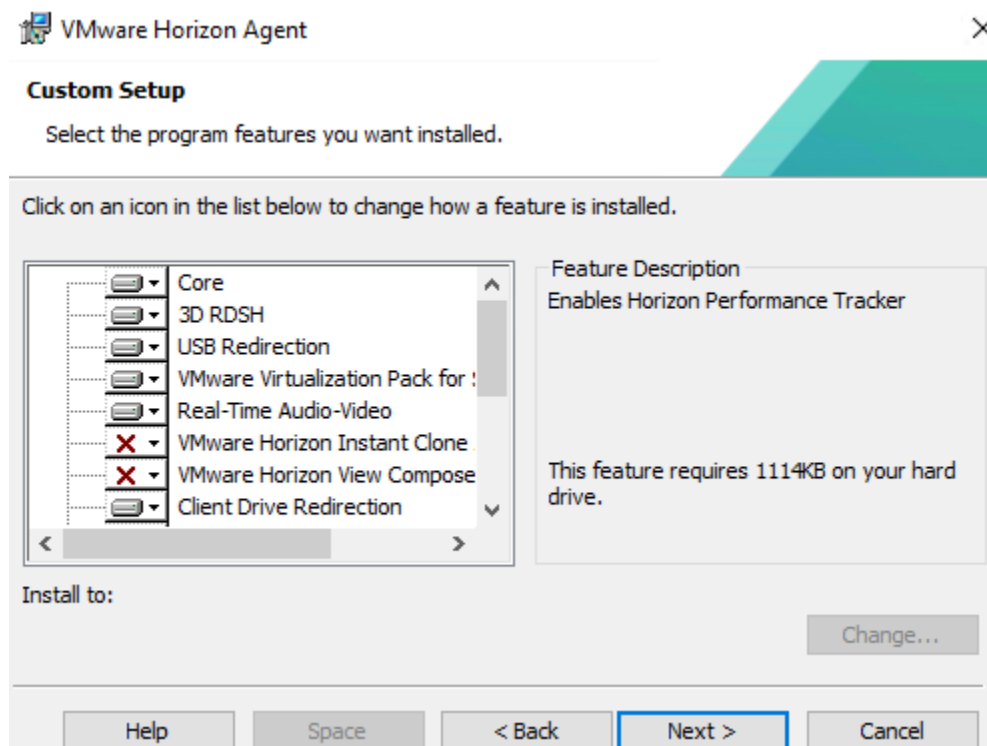
< Back

Next >

Cancel



Enable what is required to your organization. I have enabled few...





Refer to the VMware Horizon Security document for guidance on using USB redirection securely.

OK



VMware Horizon Agent

**Register with Horizon Connection Server**

Enter the Horizon Connection Server that this machine will connect to.

Enter the server name of a Horizon Connection Server (standard or replica instance) and administrator login credentials to register this machine with the Horizon Connection Server.

conn1.ramlan.ca (hostname or IP address)

Authentication: ☐ Authenticate as the currently logged on user
☒ Specify administrator credentials

Username:

ramlan\administrator (Domain\User)

Password:

••••••••

< Back

Next >

Cancel



VMware Horizon Agent

**Ready to Install the Program**

The wizard is ready to begin installation.

VMware Horizon Agent will be installed in:

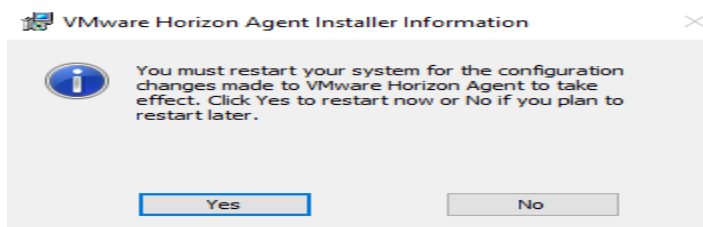
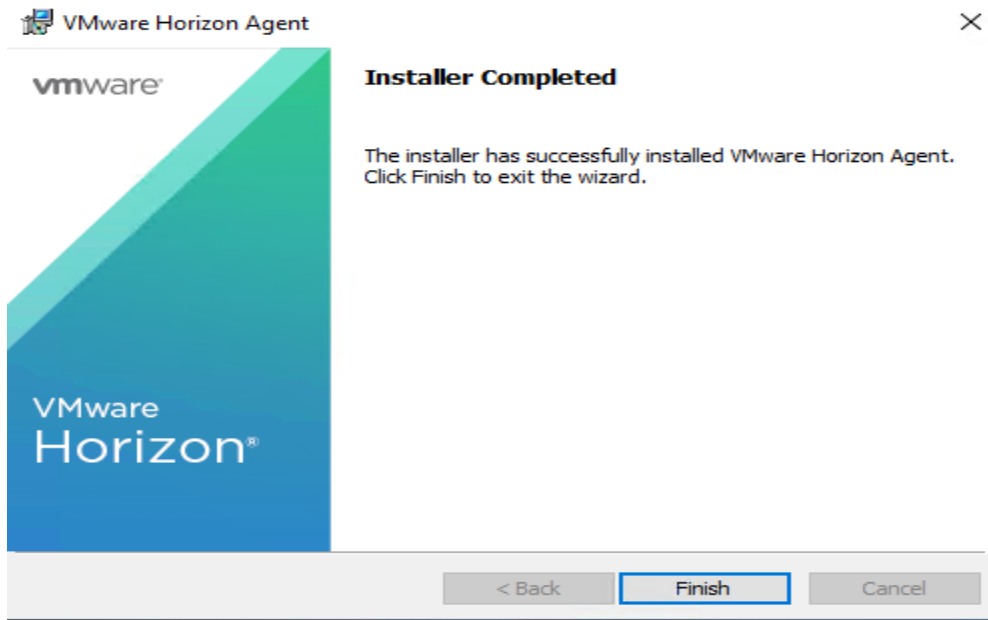
C:\Program Files\VMware\VMware View\Agent\

Click Install to begin the installation or Cancel to exit the wizard.

< Back

Install

Cancel



Below are list of applications installed on RDS Server.

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Organize ▾					
Name	Publisher	Installed On	Size	Version	
7-Zip 18.06 (x64 edition)	Igor Pavlov	20-Aug-20...	5.11 MB	18.06.00.0	
Adobe Acrobat Reader DC	Adobe Systems Incorporated	06-Sep-2020	318 MB	20.012.20043	
Classic Shell	IvoSoft	20-Aug-20...	13.1 MB	4.3.0	
Google Chrome	Google LLC	06-Sep-2020		85.0.4183.83	
Google Toolbar for Internet Explorer	Google Inc.	20-Aug-20...		7.5.8231.2252	
Microsoft Edge	Microsoft Corporation	06-Sep-2020	73.7 MB	85.0.564.44	
Microsoft Office Professional Plus 2019 - en-us	Microsoft Corporation	06-Sep-2020		16.0.10361.20002	
Microsoft Office Professional Plus 2019 - fa-ir-proof	Microsoft Corporation	06-Sep-2020		16.0.10361.20002	
Microsoft OneDrive	Microsoft Corporation	07-Sep-2020	145 MB	20.134.0705.0008	
Microsoft Visual C++ 2013 Redistributable (x64) - 12.0.40660	Microsoft Corporation	06-Sep-2020	20.5 MB	12.0.40660.0	
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.40660	Microsoft Corporation	06-Sep-2020	17.1 MB	12.0.40660.0	
Microsoft Visual C++ 2015-2019 Redistributable (x64) - 14.24.28127	Microsoft Corporation	06-Sep-2020	23.1 MB	14.24.28127.4	
Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.24.28127	Microsoft Corporation	06-Sep-2020	20.1 MB	14.24.28127.4	
VMware Horizon Agent	VMware, Inc.	07-Sep-2020	325 MB	8.0.0	
VMware Tools	VMware, Inc.	06-Sep-2020	124 MB	11.1.0.16036546	
WinRAR 5.00 beta 8 (64-bit)	win.rar GmbH	06-Sep-2020		5.00.8	

Guest OS

LAUNCH REMOTE CONSOLE ⓘ

LAUNCH WEB CONSOLE

Power Status Powered On

Guest OS Microsoft Windows Server 2019 (64-bit) - VBS true

Encryption Not encrypted

VMware Tools Running, version:11296 (Current) ⓘ

DNS Name (1) RDS.RAMLAN.CA

IP Addresses (1) 192.168.0.135

Capacity and Usage

CPU 2.82 GHz used 2 CPU(s) allocated

Memory 3.56 GB used 4 GB allocated

Storage 27.28 GB used 250 GB allocated

VM Hardware

CPU 2 CPU(s), 2815 MHz used

Memory 4 GB, 4 GB memory active

Hard disk 1 250 GB | Thin Provision ⓘ
DTENVME

Network adapter 1 VM Network (connected) | 00:50:56:83:7a:7d

CD/DVD drive 1 Disconnected ⓘ

Compatibility ESXi 7.0 and later (VM version 17)

From below screen you can see RDS Server is not listed on Connection Server. We will add a farm first and then it will show up.

Cluster-CONN1

Machines

[vCenter](#)[RDS Hosts](#)[Others](#)

Recover

Remove From Farm

Machine

All

RDS Host	Farm	Desktop Pool	Agent Version
No records available.			

Farms

Add

Edit

Delete

More Commands

Access Group

Access Group

All

<input type="checkbox"/>	ID	Type	Source	RDS
No records available.				

Add Farm

1 Type

2 Identification and Settings

3 Load Balancing Settings

4 Select RDS Hosts

5 Ready to Complete

☐ Automated Farm ⓘ

☒ Manual Farm ⓘ

☐ Automated Farm ⓘ

☒ Manual Farm ⓘ

More Information

Manual Farm

A manual RDS farm is a container for RDSH servers hosted on physical or virtual machines. The machines have to be manually added during farm creation.

Supported Features

Instant Clone (License)

✓ vCenter virtual machines

✓ Physical computers

✓ Microsoft RDS Hosts

View Composer Servers

✓ VMware Blast

✓ PCoIP

☐ Automated Farm ⓘ

☒ Manual Farm ⓘ

More Information

Automated Farm

An automated RDS farm uses virtual machines. The machines can be created when the farm is created or resized.

Supported Features

✓ Instant Clone (License)

✓ vCenter virtual machines

Physical computers

✓ Microsoft RDS Hosts

✓ View Composer Servers

✓ VMware Blast

✓ PCoIP

Add Farm - RDSFARM

✓ Type

2 Identification and Settings

3 Load Balancing Settings

4 Select RDS Hosts

5 Ready to Complete

* ID

RDSFARM

Description

Demo lab for RDS

Access Group

/

Farm Settings

Default Display Protocol ⓘ

VMware Blast

Allow Users to Choose Protocol

Yes

Pre-launch Session Timeout (Applications Only) ⓘ

After

10

minutes

Empty Session Timeout (Applications Only) ⓘ

After

1

minutes

When Timeout Occurs

Cancel

Previous

Next

After

1

minutes

When Timeout Occurs

Disconnect

Logoff Disconnected Sessions

Never

Allow Session Collaboration ☒ Enabled ⓘ

Requires VMware Blast Protocol.

Add Farm - RDSFARM

✓ Type

✓ Identification and Settings

3 Load Balancing Settings

4 Select RDS Hosts

5 Ready to Complete

Use Custom Script ☐ Enabled ⓘ

Include Session Count ☒ Enabled ⓘ

* CPU Usage Threshold

0 ⓘ

* Memory Usage Threshold

0 ⓘ

* Disk Queue Length Threshold

0 ⓘ

* Disk Read Latency Threshold

0 ⓘ

* Disk Write Latency Threshold

0 ⓘ

Add Farm - RDSFARM

- ✓ Type
- ✓ Identification and Settings
- ✓ Load Balancing Settings
- 4 Select RDS Hosts
- 5 Ready to Complete

Select RDS hosts to add to the farm RDSFARM

<input type="checkbox"/>	DNS Name	Type	Max Number of Conne...	Status
<input checked="" type="checkbox"/>	rds.ramlan.ca	Windows Server 2016 or above	150	Available

Add Farm - RDSFARM

- ✓ Type
- ✓ Identification and Settings
- ✓ Load Balancing Settings
- ✓ Select RDS Hosts
- 5 Ready to Complete

ID	RDSFARM
Description	Demo lab for RDS
Access Group	/
Farm Settings	
Default Display Protocol	VMware Blast
Allow Users to Choose Protocol	Yes
Pre-launch Session Timeout (Applications Only)	10 minutes
Empty Session Timeout (Applications Only)	1 minute
When Timeout Occurs	Disconnect
Logoff Disconnected Sessions	Never
Allow Session Collaboration	Enabled
Number of RDS Hosts in the Farm	1
Load Balancing Settings	
Use Custom Script	Disabled

Cancel Previous **Submit**

Include Session Count	Enabled
CPU Usage Threshold	0
Memory Usage Threshold	0
Disk Queue Length Threshold	0
Disk Read Latency Threshold	0
Disk Write Latency Threshold	0

Cancel Previous **Submit**

Farms

Add Edit Delete More Commands Access Group

Access Group All

Filter

<input type="checkbox"/>	ID	Type	Source	RDS Hosts	Desktop Pool	Application Pools	Sessions	Max Number of Con...	Enabled
<input type="checkbox"/>	RDSFARM	Manual	vCenter	1	0	0	0	150	✓

Machines

vCenter RDS Hosts Others					
Recover Remove From Farm					
Machine All Filter					
RDS Host	Farm	Desktop Pool	Agent Version	Sessions	Status
rds.ramlan.ca	RDSFARM		8.0.0-16530789	0	Available

Now we will add Application Pools that will be available for the client later.

Application Pools

Add Edit Duplicate Delete Entitlements Application Icon

Access Group All

✓ ID	Display Name	Pool or Farm	Version	Publisher
No records available.				

Application Pools

Add Edit Duplicate

Add Manually
Add from Installed Applications



Add Application Pool

1 Select Applications

2 Edit Applications

Select installed applications Filter

<input type="checkbox"/>	Name	Path
<input type="checkbox"/>	Windows PowerShell ISE	C:\Users\Default\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Windows PowerShell\Windows PowerShell ISE.lnk
<input type="checkbox"/>	Windows PowerShell	C:\Users\Default\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Windows PowerShell\Windows PowerShell.lnk
<input checked="" type="checkbox"/>	Internet Explorer	C:\Program Files\Internet Explorer\iexplore.exe
<input checked="" type="checkbox"/>	Internet Explorer	C:\Program Files (x86)\Internet Explorer\iexplore.exe

☐ Pre-Launch

Connection Server Restrictions
None Browse

Category Folder
None Browse

☐ Client Restrictions

☒ Entitle Users After Adding Pool

Multi-Session Mode Disabled

Cancel Previous Next

Add Application Pool

✓ Select Applications

2 Edit Applications

Edit the ID and display name for selected applications.

ID	Display Name	Path
7-Zip_File_Manager	7-Zip File Manager	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\7-Zip\7-Zip File Manager.Ink
Calculator	Calculator	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Accessories\Calculator.Ink
Paint	Paint	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Accessories\Paint.Ink
Snipping_Tool	Snipping Tool	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Accessories\Snipping Tool.Ink
WordPad	WordPad	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Accessories\Wordpad.Ink
Acrobat_Reader_DC	Acrobat Reader DC	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Acrobat Reader DC.Ink
Excel	Excel	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Excel.Ink
Google_Chrome	Google Chrome	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Google Chrome.Ink
Microsoft_Edge	Microsoft Edge	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Microsoft Edge.Ink
Skype_for_Business_Recorc	Skype for Business Recordi	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Microsoft Office Tools\Skype for Business Recording Manager.Ink
OneNote_2016	OneNote 2016	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\O

Cancel

Previous

Submit

Add Application Pool

✓ Select Applications

2 Edit Applications

Skype_for_Business_Recorc	Skype for Business Recordi	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Microsoft Office Tools\Skype for Business Recording Manager.Ink
OneNote_2016	OneNote 2016	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\OneNote 2016.Ink
Outlook	Outlook	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Outlook.Ink
PowerPoint	PowerPoint	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\PowerPoint.Ink
Skype_for_Business	Skype for Business	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Skype for Business.Ink
WinRAR	WinRAR	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\WinRAR\WinRAR.Ink
Word	Word	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Word.Ink
Notepad	Notepad	C:\Users\Default\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Accessories\Notepad.Ink
Command_Prompt	Command Prompt	C:\Users\Default\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\System Tools\Command Prompt.Ink
Windows_PowerShell_x86	Windows PowerShell (x86)	C:\Users\Default\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Windows PowerShell\Windows PowerShell (x86).Ink
Internet_Explorer	Internet Explorer	C:\Program Files\Internet Explorer\iexplore.exe
Internet_Explorer-1	Internet Explorer	C:\Program Files (x86)\Internet Explorer\iexplore.exe

Cancel

Previous

Submit

Add Entitlements



Add new users and groups who can use the selected pool(s).

Add

Remove

<input type="checkbox"/>	Name	Domains	Email
No records available.			

Cancel

OK

Find User or Group



Type



Users



Groups



Unauthenticated Users

Domain

Entire Directory

Name/User Name

Contains

domain users

Description

Contains

Find

<input checked="" type="checkbox"/>	Name	User Name	Email	Description	In Folder
<input checked="" type="checkbox"/>	Domain Users	Domain Users/RAMLAN.CA		All domain users	RAMLAN.CA/Users

««

«

1

»

»»

Cancel

OK

Add Entitlements



Add new users and groups who can use the selected pool(s).

Add

Remove

<input type="checkbox"/>	Name	Domains	Email
<input type="checkbox"/>	Domain Users/RAMLAN.CA	RAMLAN.CA	

Cancel

OK

Application Pools

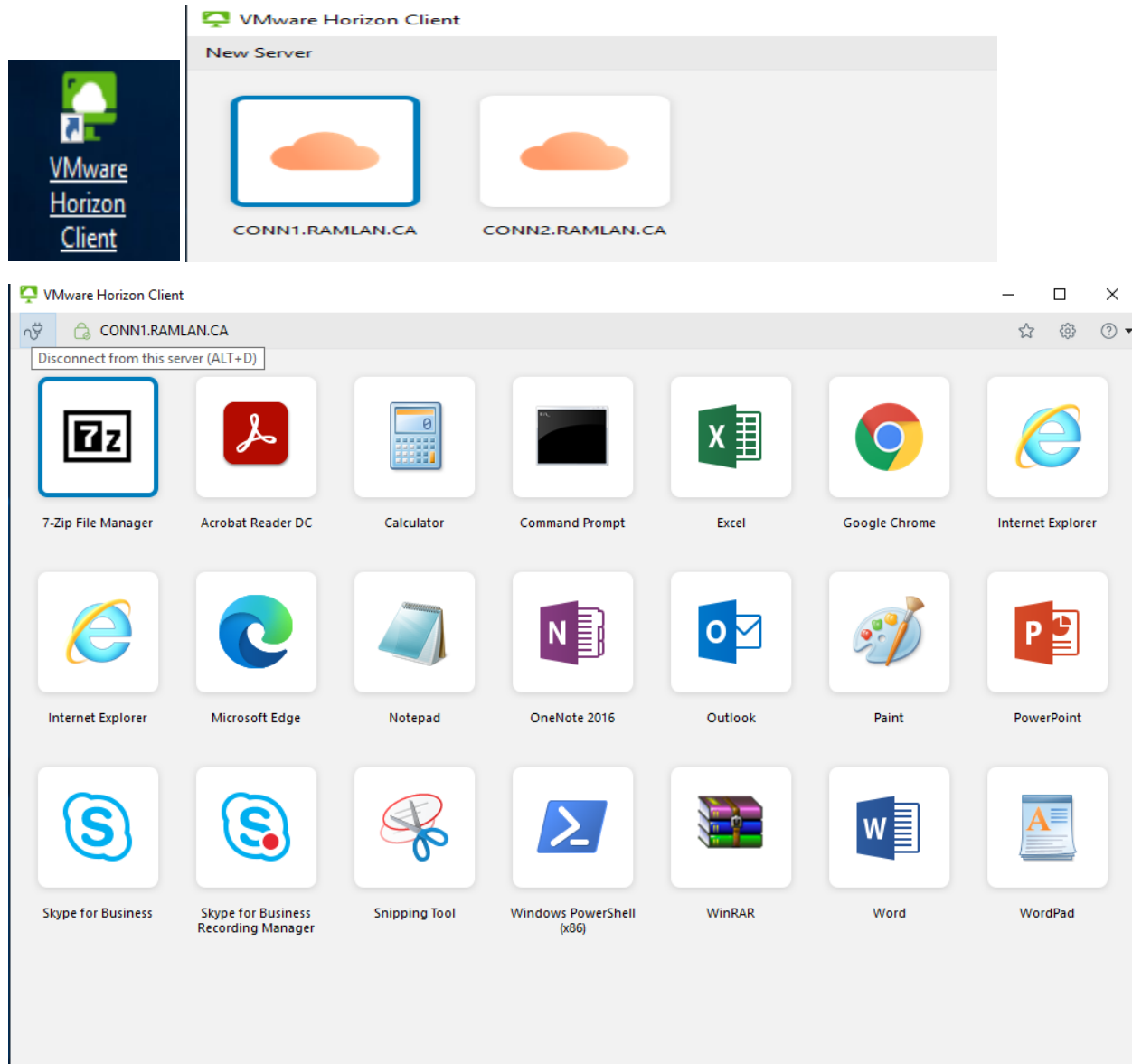
Add Edit Duplicate Delete Entitlements Application Icon

Access Group All

Filter

<input type="checkbox"/>	ID	Display Name	Pool or Farm	Version	Publisher	User Count	App Shortcuts	Pre-Launch	Multi-Session Mode	Status
<input type="checkbox"/>	7-Zip File Manager	7-Zip File Manager	RDSFARM	18.06	Igor Pavlov				Disabled	✓ Available
<input type="checkbox"/>	Acrobat Reader DC	Acrobat Reader DC	RDSFARM	20.12.20043.39643 3	Adobe Systems Incorporated				Disabled	✓ Available
<input type="checkbox"/>	Calculator	Calculator	RDSFARM	10.0.17763.771	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Command Prompt	Command Prompt	RDSFARM	10.0.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Excel	Excel	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Google Chrome	Google Chrome	RDSFARM	85.0.4183.83	Google LLC				Disabled	✓ Available
<input type="checkbox"/>	Internet Explorer	Internet Explorer	RDSFARM	11.00.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Internet Explorer-1	Internet Explorer	RDSFARM	11.00.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Microsoft Edge	Microsoft Edge	RDSFARM	85.0.564.44	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Notepad	Notepad	RDSFARM	10.0.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	OneNote 2016	OneNote 2016	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Outlook	Outlook	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Paint	Paint	RDSFARM	10.0.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	PowerPoint	PowerPoint	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Skype for Business	Skype for Business	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Skype for Business Recording Manager	Skype for Business Recording Manager	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Snipping Tool	Snipping Tool	RDSFARM	10.0.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	WinRAR	WinRAR	RDSFARM	5.0.8	Alexander Roshal				Disabled	✓ Available
<input type="checkbox"/>	Windows PowerShell x86	Windows PowerShell (x86)	RDSFARM	10.0.17763.1	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	Word	Word	RDSFARM	16.0.10361.20002	Microsoft Corporation				Disabled	✓ Available
<input type="checkbox"/>	WordPad	WordPad	RDSFARM	10.0.17763.1075	Microsoft Corporation				Disabled	✓ Available

Open Horizon Client from a workstation – Login to Connection Server – You will see the list of application in the pool ready for use.



Instant Clone Domain Accounts:

Instant Clone Domain Accounts

If you plan to use Instant-Clone to create non-persistent virtual desktops, then add an administrator account that can join machines to the domain.

Instant Clone Engine Domain Accounts

Add Domain Admin



Full domain name

RAMLAN.CA

* User Name

administrator

* Password

.....

Cancel

OK

Instant Clone Engine Domain Accounts

Add

Edit

Remove

Domain	User
RAMLAN.CA	administrator

Restrict Remote Access:

The **Users and Groups** node has a **Remote Access** tab. If you add groups or users to this tab, then only these groups and users can login through Unified Access Gateway (UAG).

Users and Groups

Entitlements

Remote Access

Unauthenticated Ac...

Add

Delete

Find User or Group



Type

☐ Users ☒ Groups

Domain

Entire Directory

Name/User Name

Contains

domain users

Description

Contains

Find

Name	User Name	Email	Description	In Folder
Domain Users	Domain Users/RAMLAN.CA		All domain users	RAMLAN.CA/Users

1

Users and Groups

Entitlements Remote Access Unauthenticated Ac...

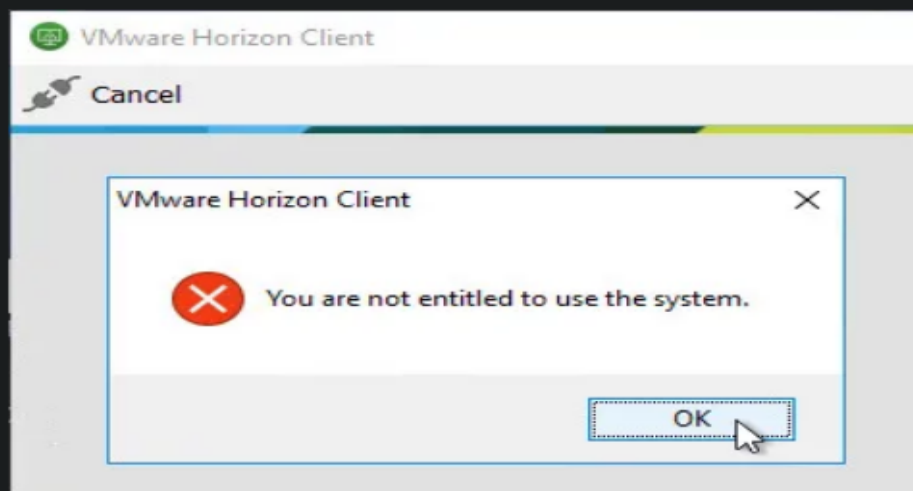
Add

Delete

Filter

User Name	Domains	Group	Email
Administrator	RAMLAN.CA	false	Administrator@ramlan.ca
Ram	RAMLAN.CA	false	ram@ramlan.ca
Domain Users	RAMLAN.CA	true	

Users not in the list can't login through Unified Access Gateway (UAG).



Disable Secure Tunnel:

By default, internal Horizon Clients connect to Horizon Agents by tunneling (proxying) Blast or PCoIP through a Horizon Connection Server. It would be more efficient if the internal Horizon Clients connect directly to the Horizon Agents instead of going through a Connection Server.

- If the tunnels are enabled, and if you reboot the Connection Server, then user connections will drop.
- If the tunnels are disabled, then rebooting the Connection Server will not affect existing connections.

Select the server – Click Edit

Servers

vCenter Servers Gateways **Connection Servers**

Enable Disable **Edit** Backup Now

Filter

Connection Server	Version	PCoIP Secure Gateway	State	Settings	Last Backup
CONN1	8.0.0-16592062	Installed	Enabled	Secure tunnel connection, Smart card authentication: Optional, Automatic backup	✓ 09/07/2020, 12:00 AM
CONN2	8.0.0-16592062	Installed	Enabled	Secure tunnel connection, Smart card authentication: Optional,	✓ 09/07/2020, 12:00 AM

On the *General* tab, uncheck the boxes next to **HTTP(S) Secure Tunnel** and the **PCoIP Secure Gateway**. For Blast Secure Gateway, change it to **Use Blast Secure Gateway for only HTML Access connections to machine**. Click **OK**.

HTTP(s) Secure Tunnel

☒ Use Secure Tunnel connection to machine ⓘ

* External URL

https://CONN1.RAMLAN.CA:443 ⓘ

Example: https://myserver.com:443

PCoIP Secure Gateway

☐ Use PCoIP Secure Gateway for PCoIP connections to machine ⓘ

* PCoIP External URL

192.168.0.132:4172 ⓘ

Example: 10.0.0.1:4172

Blast Secure Gateway

☒ Use Blast Secure Gateway for all Blast connections to machine ⓘ

☐ Use Blast Secure Gateway for only HTML Access connections to machine ⓘ

☐ Do not use Blast Secure Gateway ⓘ

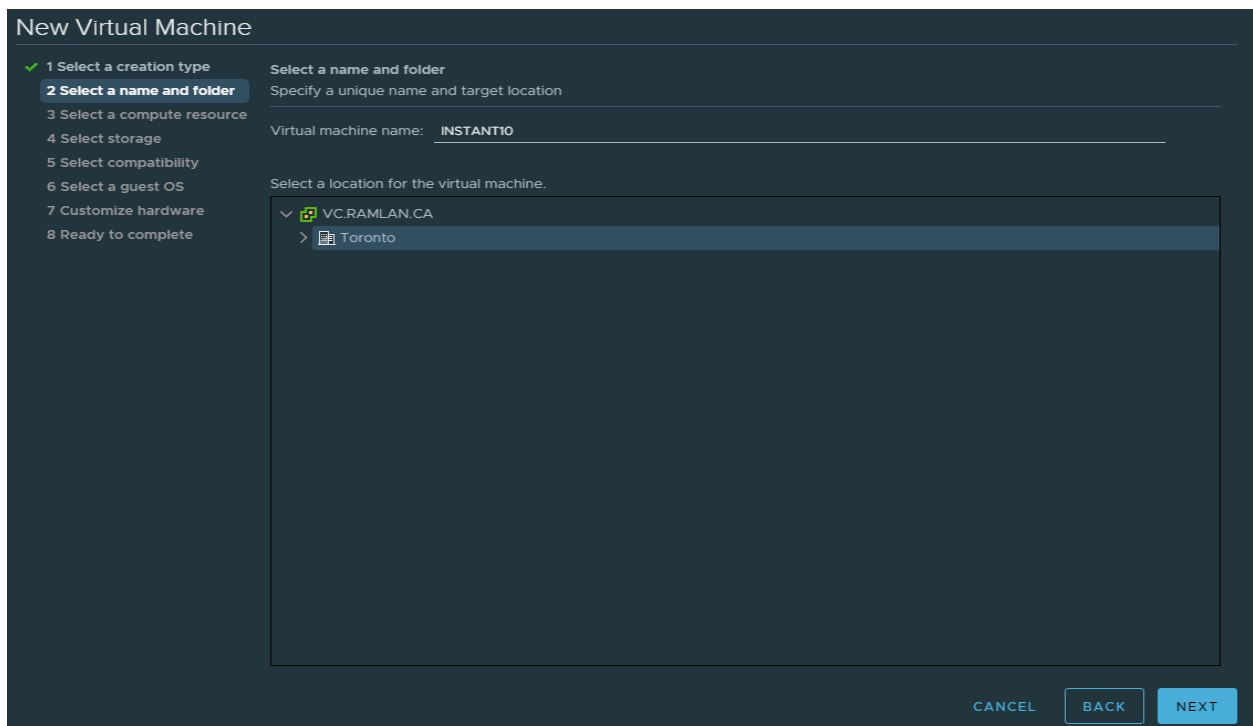
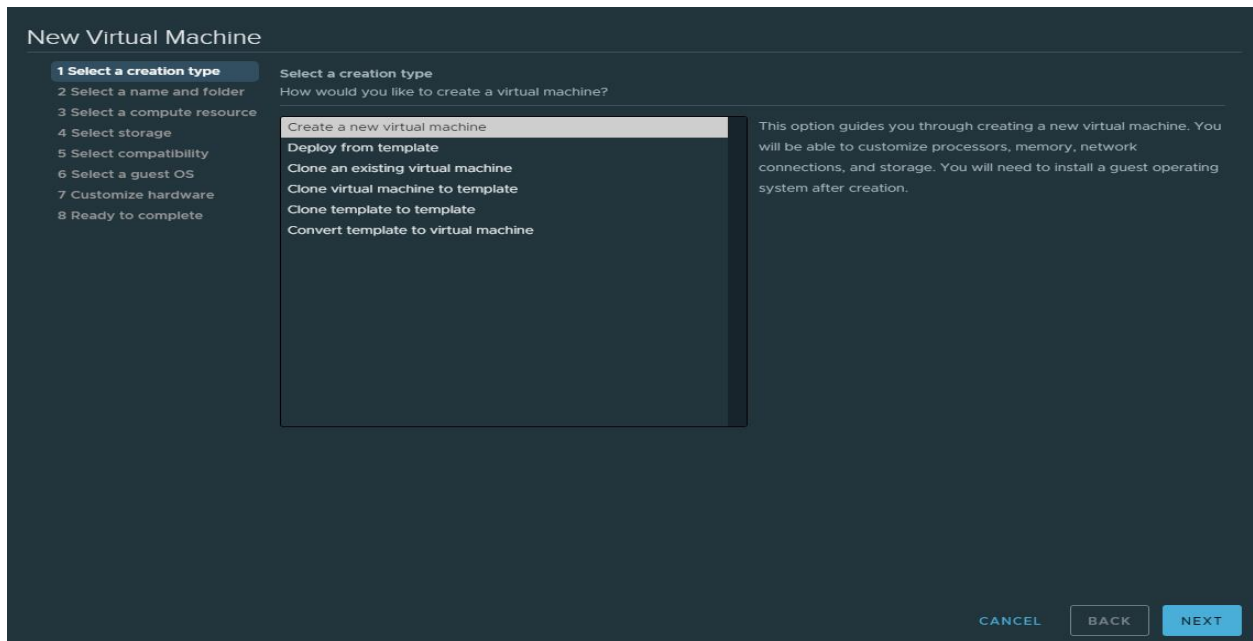
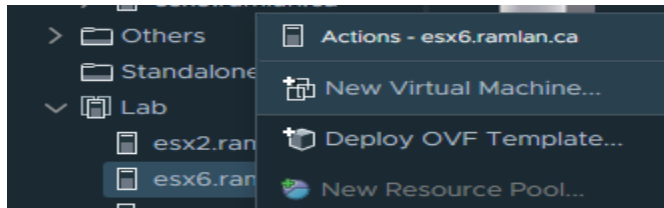
* Blast External URL

https://CONN1.RAMLAN.CA:8443 ⓘ

Example: https://myserver.com:8443

Master Image – Windows 10 x64 – For Instant Clone & Linked Clone:

We will create a master image for Instant Clone & Linked Clone. The workstation name will be INSTANT10 + LINKED10



New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- 3 Select a compute resource**
- 4 Select storage
- 5 Select compatibility
- 6 Select a guest OS
- 7 Customize hardware
- 8 Ready to complete

Select a compute resource

Select the destination compute resource for this operation

✓ Toronto

> Nested

> Others

> Standalone

✓ Lab

esx2.ramlan.ca

esx6.ramlan.ca

> vSAN

Compatibility

✓ Compatibility checks succeeded.

CANCEL

BACK

NEXT

New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- 4 Select storage**
- 5 Select compatibility
- 6 Select a guest OS
- 7 Customize hardware
- 8 Ready to complete

Select storage

Select the storage for the configuration and disk files

☐ Encrypt this virtual machine (Requires Key Management Server)

VM Storage Policy:

Datastore Default

Name	Capacity	Provisioned	Free	Type	Cluster
datastore1 (f)	337.5 GB	1.41 GB	336.09 GB	VMFS 6	
Datastore5	999.75 GB	29.45 GB	970.3 GB	VMFS 6	
DTENVME	931.25 GB	255.5 GB	902.12 GB	VMFS 6	

Compatibility

✓ Compatibility checks succeeded.

CANCEL

BACK

NEXT

New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- 5 Select compatibility**
- 6 Select a guest OS
- 7 Customize hardware
- 8 Ready to complete

Select compatibility

Select compatibility for this virtual machine depending on the hosts in your environment

The host or cluster supports more than one VMware virtual machine version. Select a compatibility for the virtual machine.

Compatible with: ⓘ

This virtual machine uses hardware version 17, which provides the best performance and latest features available in ESXi 7.0

CANCEL

BACK

NEXT

New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- ✓ 5 Select compatibility
- 6 Select a guest OS**
- 7 Customize hardware
- 8 Ready to complete

Select a guest OS

Choose the guest OS that will be installed on the virtual machine

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Guest OS Family:

Guest OS Version:

☐ Enable Windows Virtualization Based Security ⓘ

Compatibility: ESXi 7.0 and later (VM version 17)

CANCEL

BACK

NEXT

Below are some of the hardware customization

Memory *	03	GB
Reservation	3	GB
	<input checked="" type="checkbox"/> Reserve all guest memory (All locked)	
Limit	Unlimited	MB
Shares	Normal	30720
Memory Hot Plug	<input type="checkbox"/> Enable	


New Hard disk *	48	GB
Maximum Size	902.12 GB	
VM storage policy	Datastore Default	
Location	Store with the virtual machine	
Disk Provisioning	Thin Provision	
Sharing	Unspecified	
Shares	Normal	1000
Limit - IOPs	Unlimited	
Disk Mode	Dependent	
Virtual Device Node	New SCSI controller	SCSI(0:0) New Hard disk

New Network *	VM Network	
Status	<input checked="" type="checkbox"/> Connect At Power On	
Adapter Type	VMXNET 3	
DirectPath I/O	<input checked="" type="checkbox"/> Enable	
MAC Address	Automatic	

New CD/DVD Drive *	Datastore ISO File	
Status	<input checked="" type="checkbox"/> Connect At Power On	
CD/DVD Media	[Datastore5] ISO/en_winc	BROWSE...
Device Mode	Passthrough CD-ROM	
Virtual Device Node	New SATA Controller	SATA(0:0) New CD/DVD Drive


Video card *	Specify custom settings	
Number of displays	4	
Total video memory	128	MB
3D Graphics	<input type="checkbox"/> Enable 3D Support	
3D Renderer	Automatic	
3D Memory	256	MB

▼ **Boot Options**


Firmware	<u>EFI (recommended)</u> ▼
Secure Boot	<input checked="" type="checkbox"/> Enabled
Boot Delay	When powering on or resetting, delay boot order by <u>0</u> milliseconds
Force EFI setup	 <input checked="" type="checkbox"/> During the next boot, force entry into the EFI setup screen
Failed Boot Recovery	<input type="checkbox"/> If the VM fails to find boot device, automatically retry after <u>10</u> seconds


▼ **Advanced**


Settings	<input type="checkbox"/> Disable acceleration
	<input checked="" type="checkbox"/> Enable logging

Configuration Parameters  [EDIT CONFIGURATION...](#)

Configuration Parameters ×

 Modify or add configuration parameters as needed for experimental features or as instructed by technical support. Empty values will be removed (supported on ESXi 6.0 and later).

 [ADD CONFIGURATION PARAMS](#)

Name ▼	Value ▼
devices.hotplug	<u>false</u> 

[CANCEL](#) [OK](#)

Below you see the completion for both master images (Instant & Linked Clone)

New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- ✓ 5 Select compatibility
- ✓ 6 Select a guest OS
- ✓ 7 Customize hardware
- 8 Ready to complete**

Virtual machine name	INSTANT10
Folder	Toronto
Host	esx6.ramlan.ca
Datastore	DTENVME
Guest OS name	Microsoft Windows 10 (64-bit)
Virtualization Based Security	Disabled
CPUs	2
Memory	3 GB
NICs	1
NIC 1 network	VM Network
NIC 1 type	VMXNET 3
SCSI controller 1	LSI Logic SAS
Create hard disk 1	New virtual disk
Capacity	48 GB
Datastore	DTENVME
Virtual device node	SCSI(0:0)
Mode	Dependent

Compatibility: ESXi 7.0 and later (VM version 17)

CANCEL BACK FINISH

New Virtual Machine

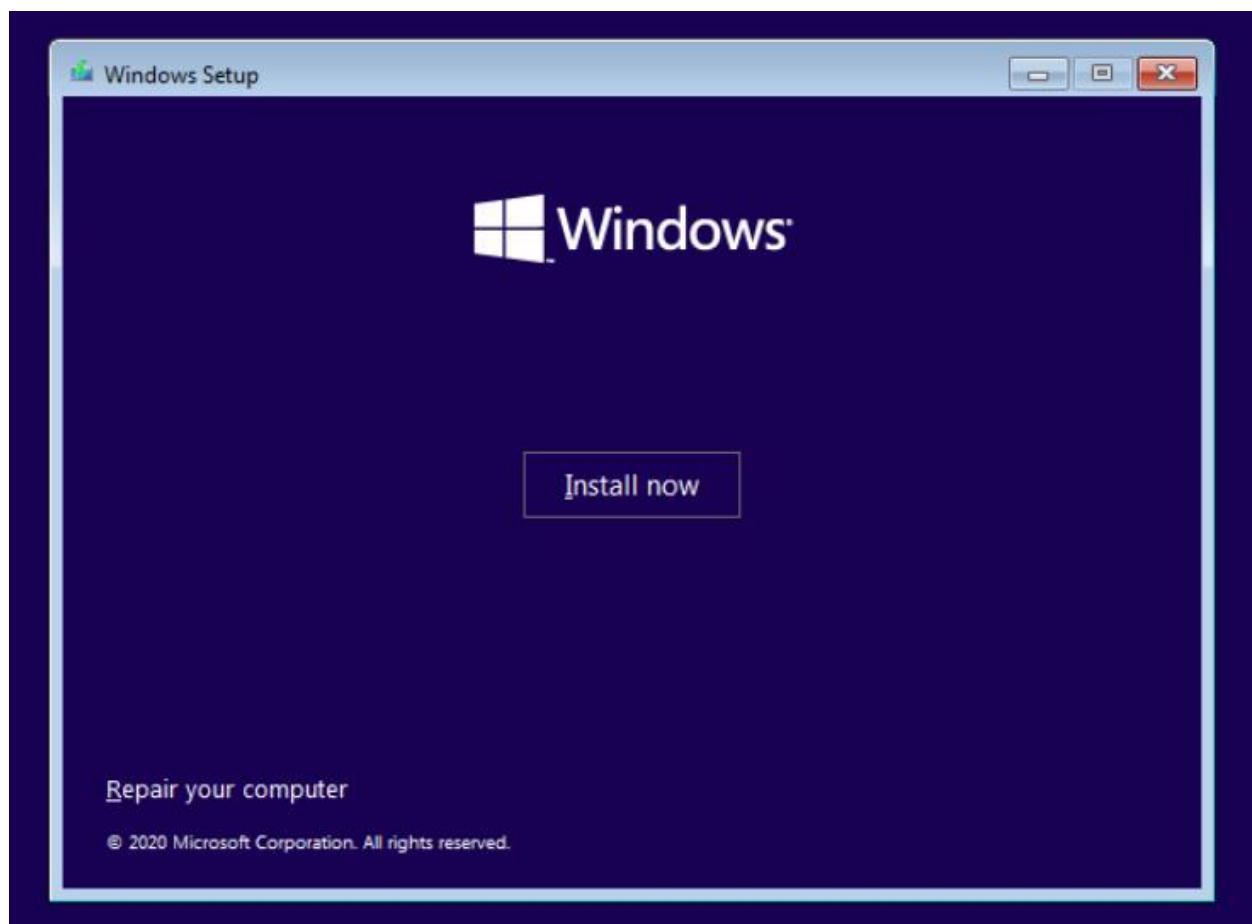
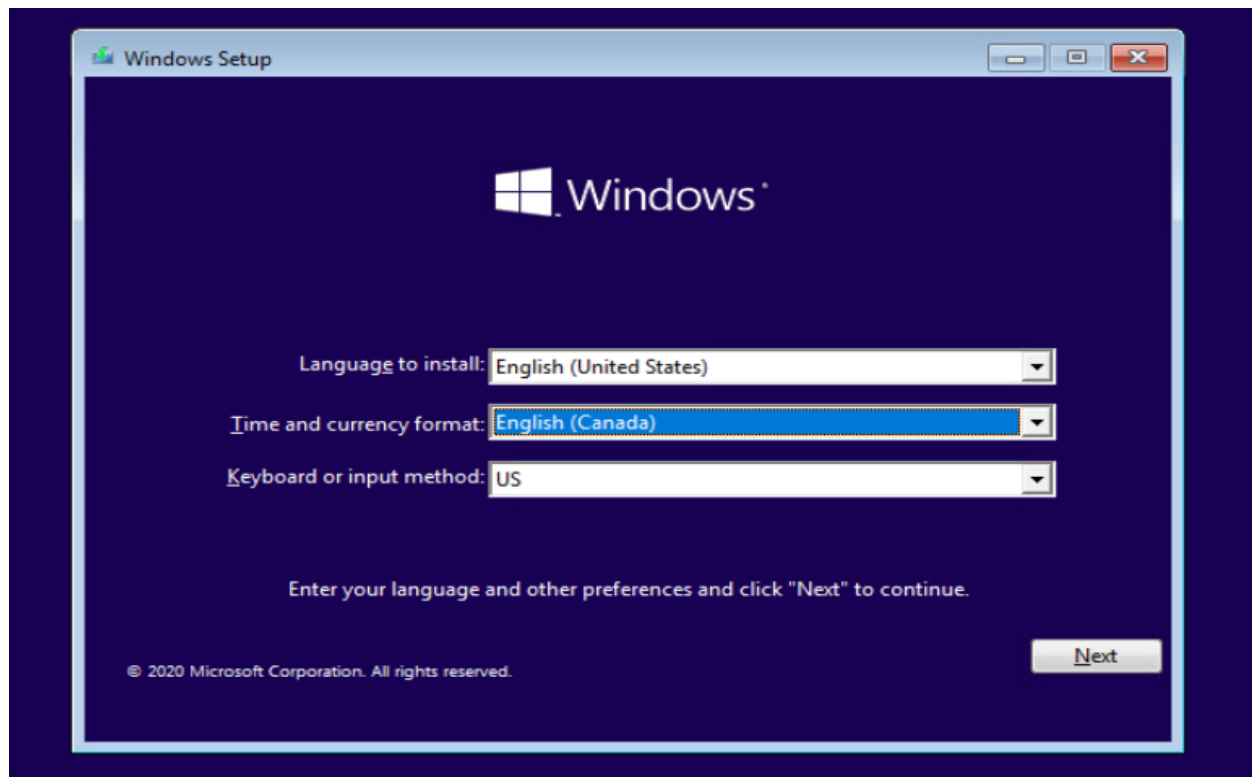
- ✓ 1 Select a creation type
- 2 Select a name and folder**
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- ✓ 5 Select compatibility
- ✓ 6 Select a guest OS
- ✓ 7 Customize hardware
- 8 Ready to complete**

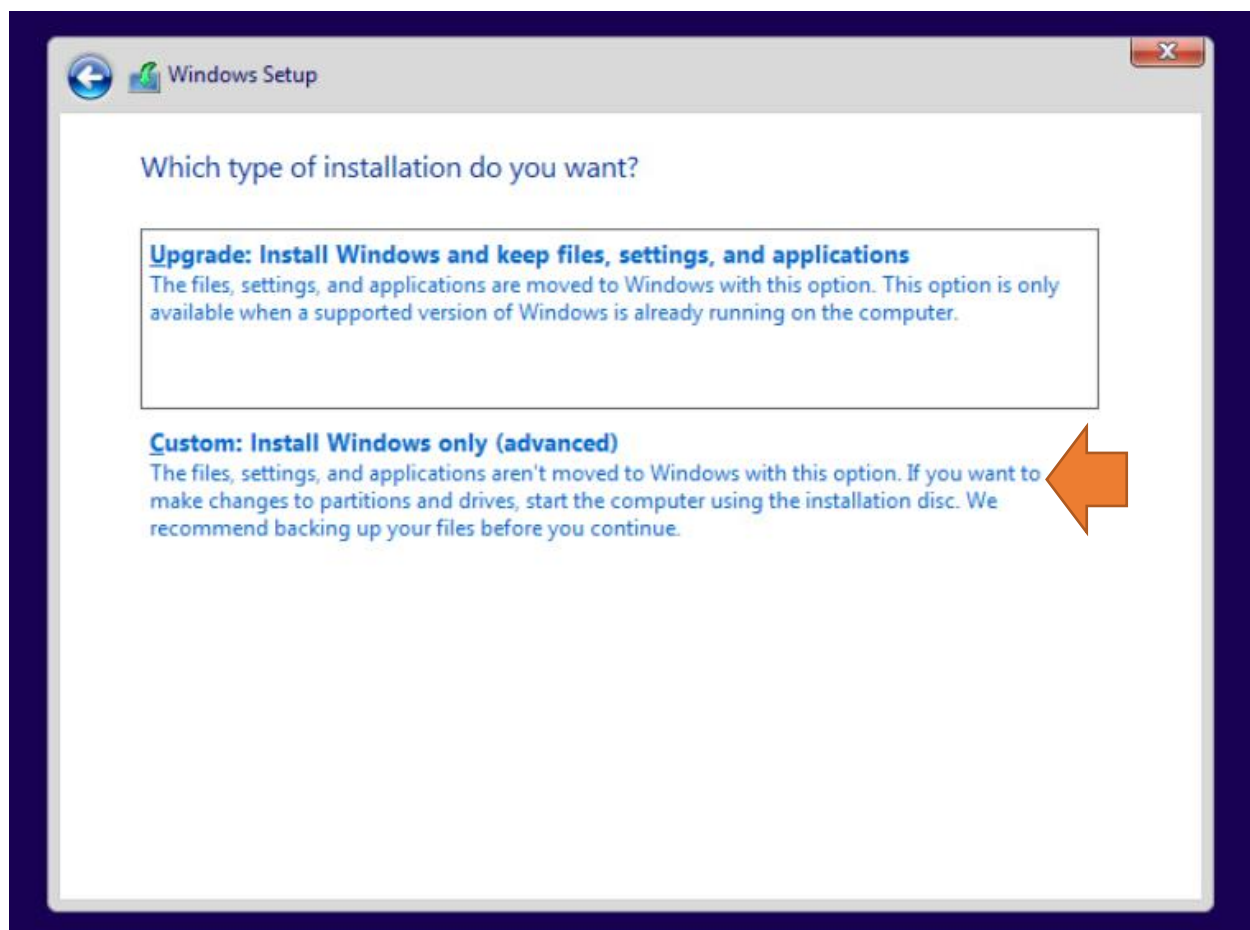
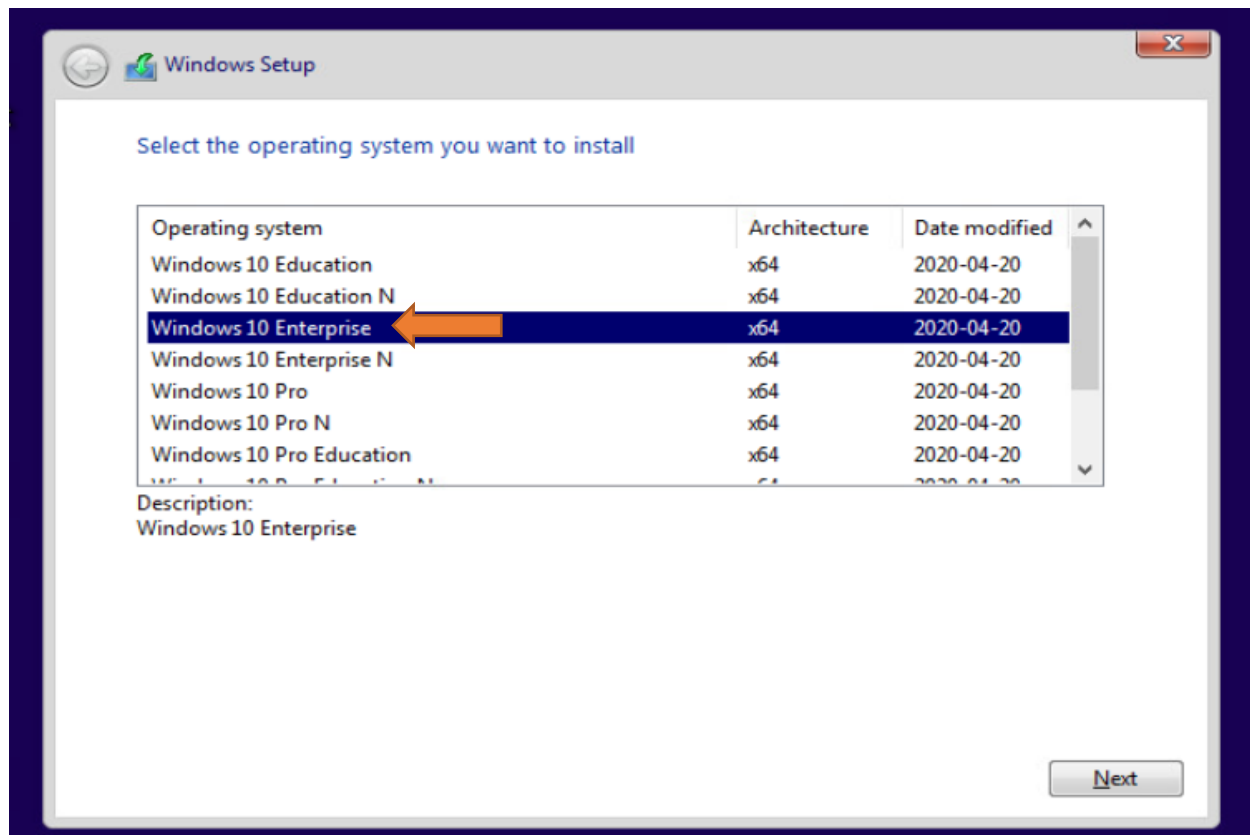
Virtual machine name	LINKED10
Folder	Toronto
Host	esx6.ramlan.ca
Datastore	DTENVME
Guest OS name	Microsoft Windows 10 (64-bit)
Virtualization Based Security	Disabled
CPUs	2
Memory	3 GB
NICs	1
NIC 1 network	VM Network
NIC 1 type	VMXNET 3
SCSI controller 1	LSI Logic SAS
Create hard disk 1	New virtual disk
Capacity	48 GB
Datastore	DTENVME
Virtual device node	SCSI(0:0)
Mode	Dependent

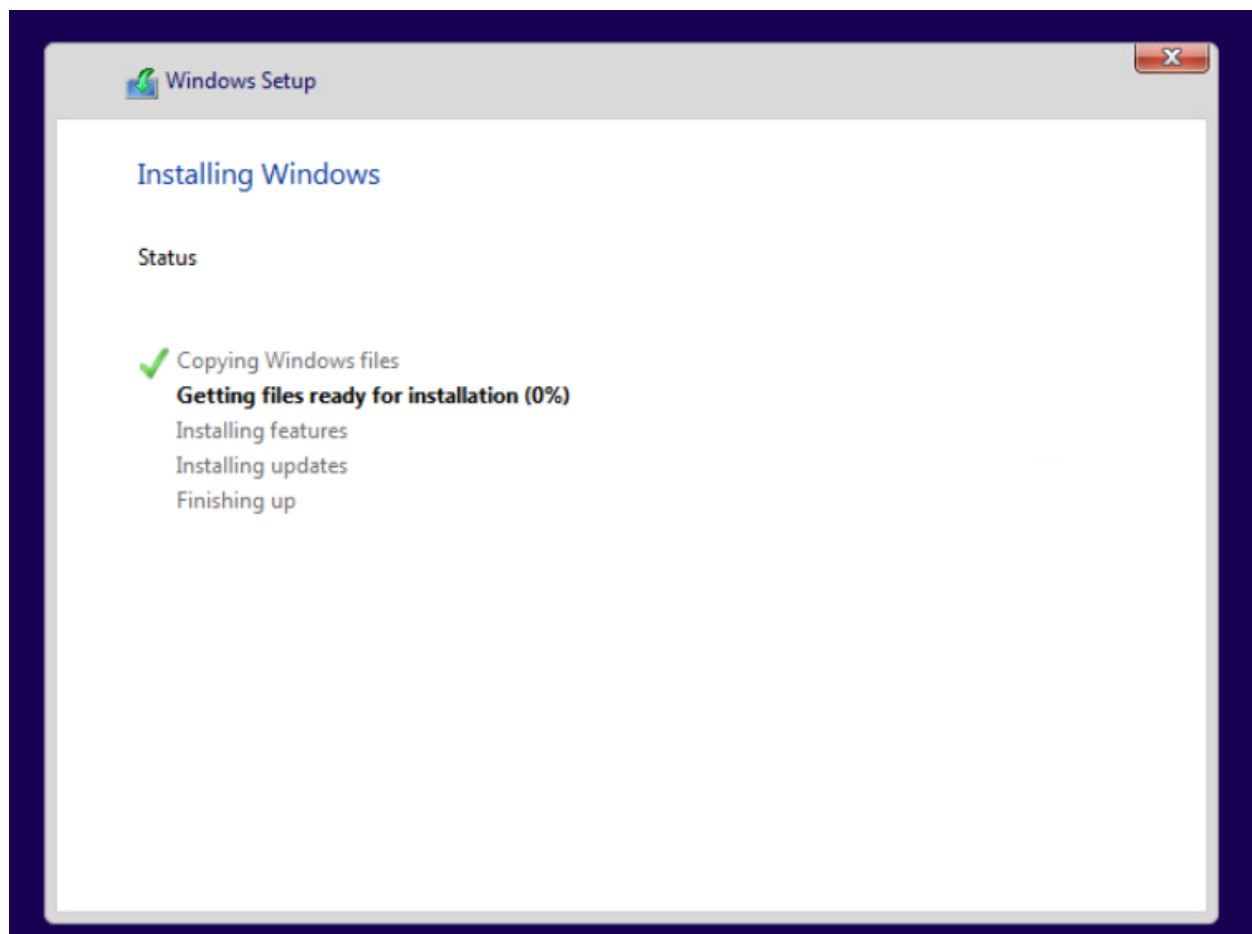
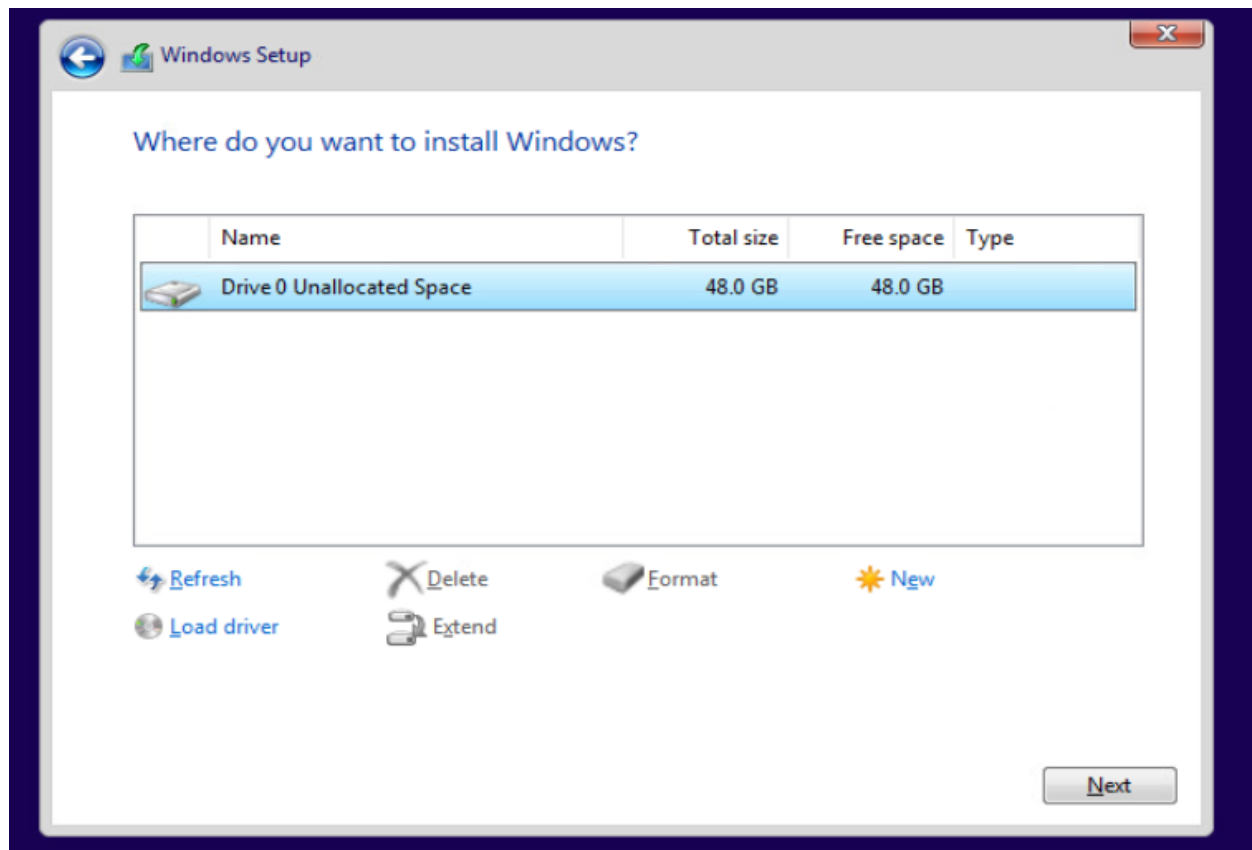
Compatibility: ESXi 7.0 and later (VM version 17)

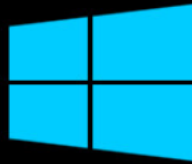
CANCEL BACK FINISH

Now build the machine and we will do further customization after first login.









Getting ready

Basics

Let's start with region. Is this right?

Bulgaria
Burkina Faso
Burundi
Cabo Verde
Cambodia
Cameroon
Canada



Yes

Is this the right keyboard layout?

If you also use another keyboard layout, you can add that next.

US

Canadian Multilingual Standard

English (India)

Irish

Scottish Gaelic

United Kingdom

United States-Dvorak

Yes



Want to add a second keyboard layout?



Add layout

Skip

Who's going to use this PC?

What name do you want to use?

[Next](#)

Do more with your voice

Choose your settings, then select 'Accept' to save them. Check the 'Learn more' link for info on these settings, how to change them, how Microsoft Defender SmartScreen works, and the related data transfers and uses.



Use online speech recognition

Use your voice for dictation and to talk to Cortana and other apps that use Windows cloud-based speech recognition. Send Microsoft your voice data to help improve our speech services.



Don't use online speech recognition

You won't be able to use dictation or talk to Cortana or other apps that support Windows cloud-based speech recognition. You can still use the Windows Speech Recognition app and other speech services that don't rely on Windows cloud-based services.

[Learn more](#)[Accept](#)



Do more across devices with activity history



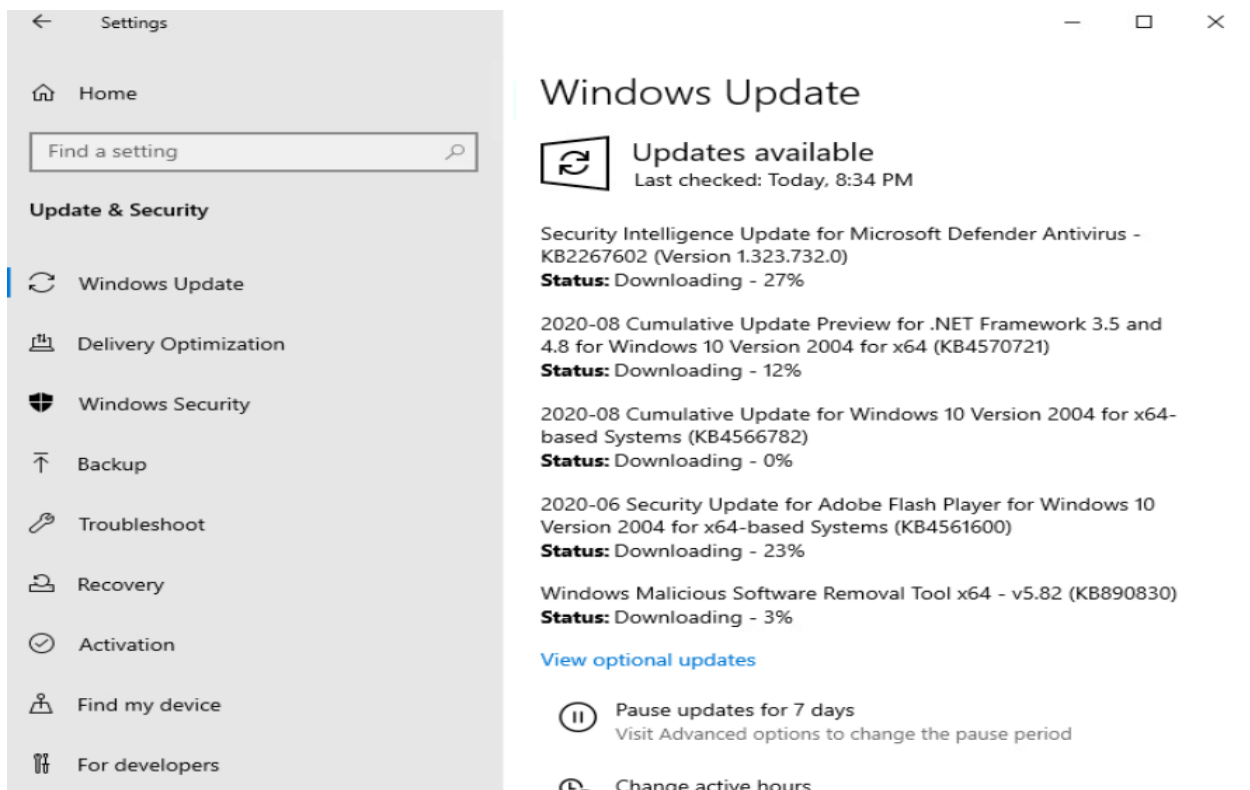
If you want timeline and other Windows features to help you continue what you were doing, even when you switch devices, send Microsoft your activity history, which includes info about websites you browse and how you use apps and services. Select **Learn more** to find out how Microsoft products and services use this data to personalize experiences while respecting your privacy.

[Learn more](#)[No](#)[Yes](#)

This might take several minutes

Don't turn off your PC

Now will install all the updates.



The screenshot shows the Windows Settings application with the 'Update & Security' section selected. The 'Windows Update' page displays the title 'Windows Update' and a status of 'Updates available'. It indicates the last check was at 8:34 PM today. A list of updates is shown, including a Security Intelligence Update for Microsoft Defender Antivirus (KB2267602) at 27% download, a .NET Framework update (KB4570721) at 12%, a Windows 10 cumulative update (KB4566782) at 0%, and an Adobe Flash Player update (KB4561600) at 23%. A 'View optional updates' link is present. At the bottom, there are options to 'Pause updates for 7 days' and 'Change active hours'.

Settings

Home

Find a setting

Update & Security

Windows Update

Delivery Optimization

Windows Security

Backup

Troubleshoot


Recovery

Activation

Find my device

For developers

Windows Update

 **Updates available**
Last checked: Today, 8:34 PM

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.323.732.0)
Status: Downloading - 27%


2020-08 Cumulative Update Preview for .NET Framework 3.5 and 4.8 for Windows 10 Version 2004 for x64 (KB4570721)
Status: Downloading - 12%


2020-08 Cumulative Update for Windows 10 Version 2004 for x64-based Systems (KB4566782)
Status: Downloading - 0%

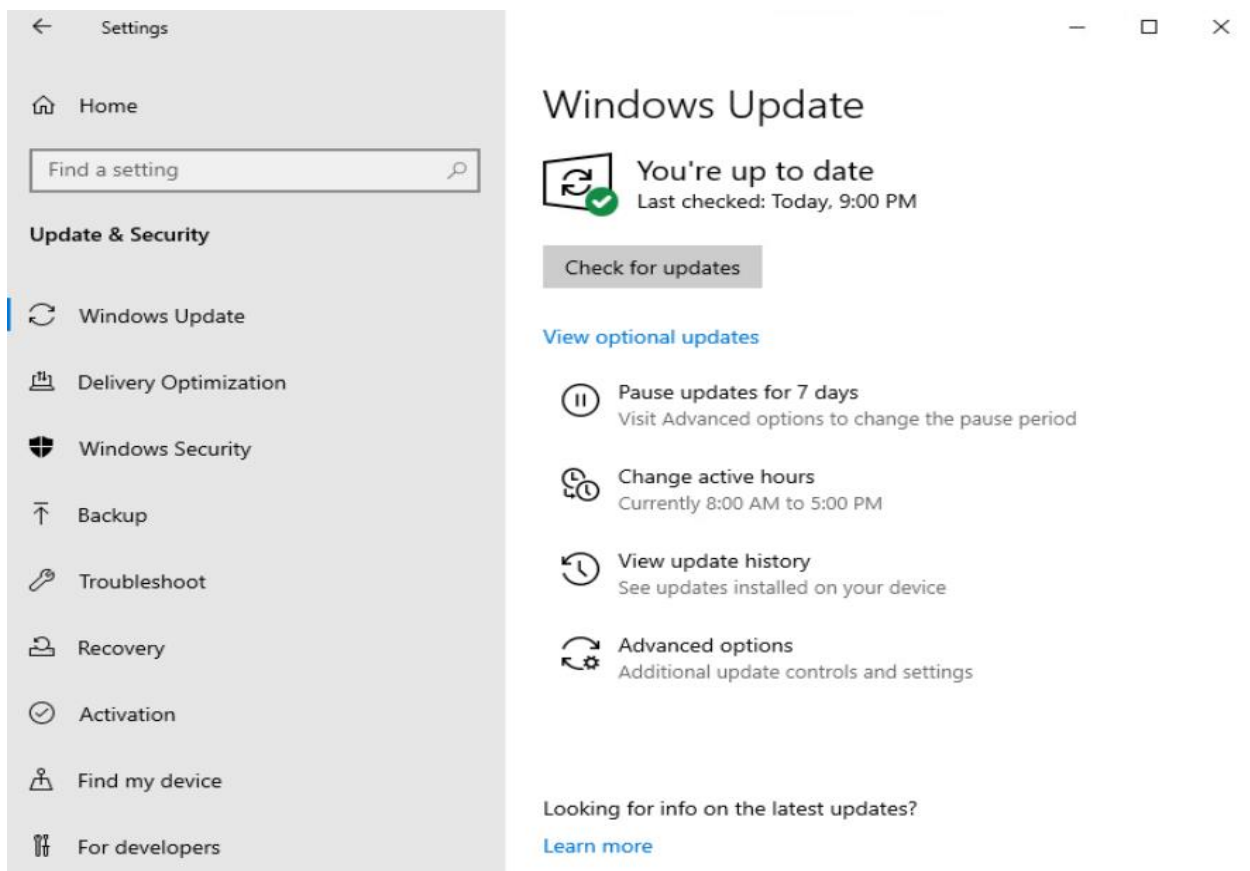
2020-06 Security Update for Adobe Flash Player for Windows 10 Version 2004 for x64-based Systems (KB4561600)
Status: Downloading - 23%

Windows Malicious Software Removal Tool x64 - v5.82 (KB890830)
Status: Downloading - 3%

[View optional updates](#)

 **Pause updates for 7 days**
Visit Advanced options to change the pause period

 **Change active hours**



The screenshot shows the Windows Settings application with the 'Update & Security' section selected. The 'Windows Update' page displays the title 'Windows Update' and a status of 'You're up to date'. It indicates the last check was at 9:00 PM today. A 'Check for updates' button is visible. Below this, there are links for 'View optional updates', 'Pause updates for 7 days', 'Change active hours' (showing 8:00 AM to 5:00 PM), 'View update history', and 'Advanced options'. At the bottom, there is a link to 'Learn more' for the latest updates.

Settings

Home

Find a setting

Update & Security

Windows Update

Delivery Optimization

Windows Security

Backup

Troubleshoot


Recovery

Activation

Find my device


For developers


Windows Update


 **You're up to date**
Last checked: Today, 9:00 PM


[Check for updates](#)

[View optional updates](#)

 **Pause updates for 7 days**
Visit Advanced options to change the pause period

 **Change active hours**
Currently 8:00 AM to 5:00 PM

 **View update history**
See updates installed on your device

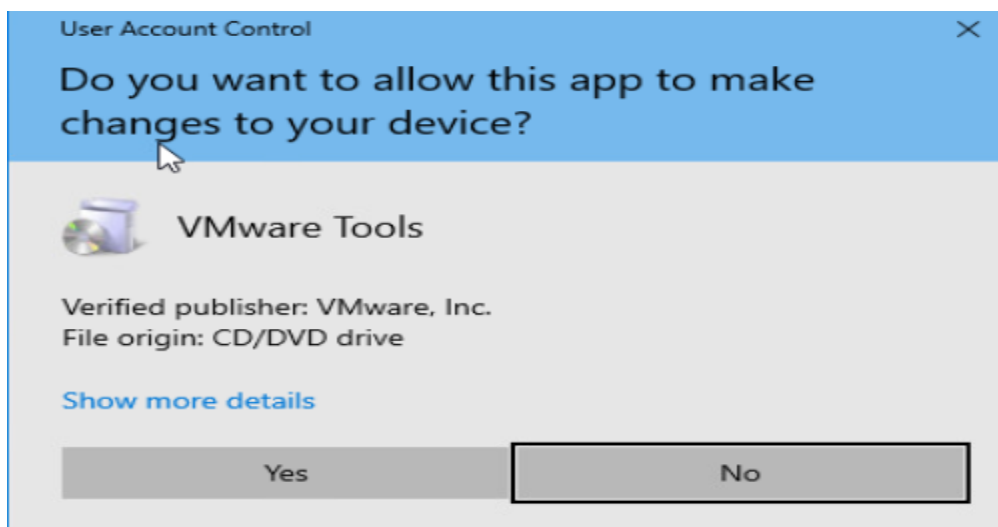
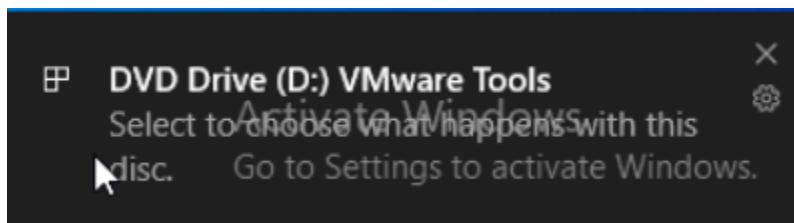
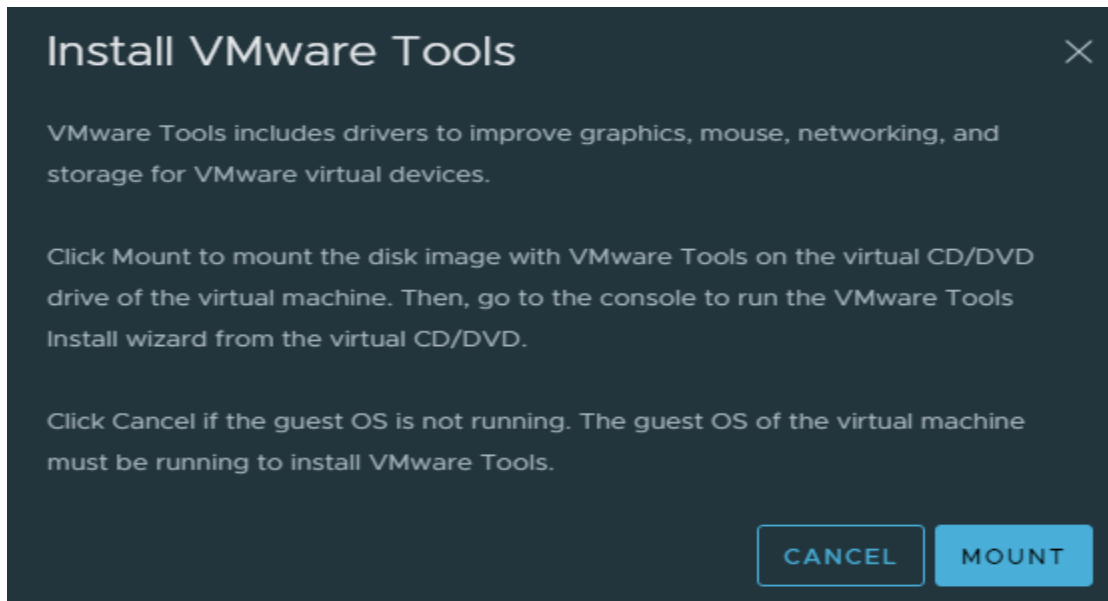
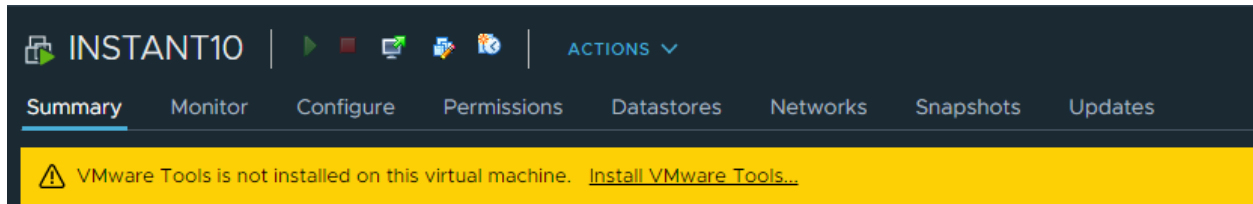
 **Advanced options**
Additional update controls and settings

Looking for info on the latest updates?
[Learn more](#)

Operating System Customization:

It is time to do all necessary tweaks and tunings to boost the performance of this precious golden image.

VMWare Tools:





VMware Tools Setup



Welcome to the installation wizard for VMware Tools

The installation wizard will install VMware Tools on your computer. To continue, click Next.

Copyright (c) 1998-2020 VMware, Inc. All rights reserved.
This product is protected by copyright and intellectual property laws in the United States and other countries as well as by international treaties. VMware products are covered by one or more patents listed at <http://www.vmware.com/go/patents>.

vmware

< Back

Next >

Cancel



VMware Tools Setup



Choose Setup Type

Choose the setup type that best suits your needs

vmware

Please select a setup type.

☐ Typical



Installs the program features used by this VMware product only. Select this option if you intend to run this virtual machine only with this VMware product.

☒ Complete



Installs all program features. Select this option if you intend to run this virtual machine on multiple VMware products.

☐ Custom

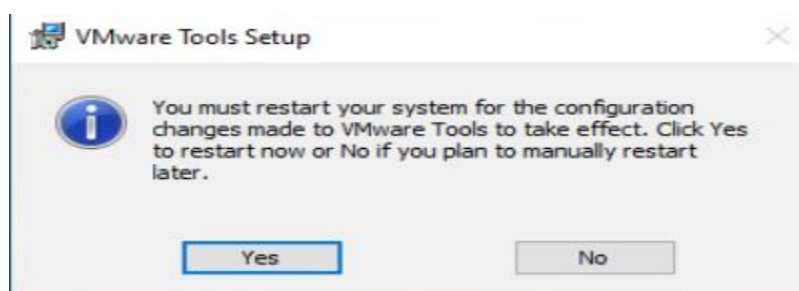
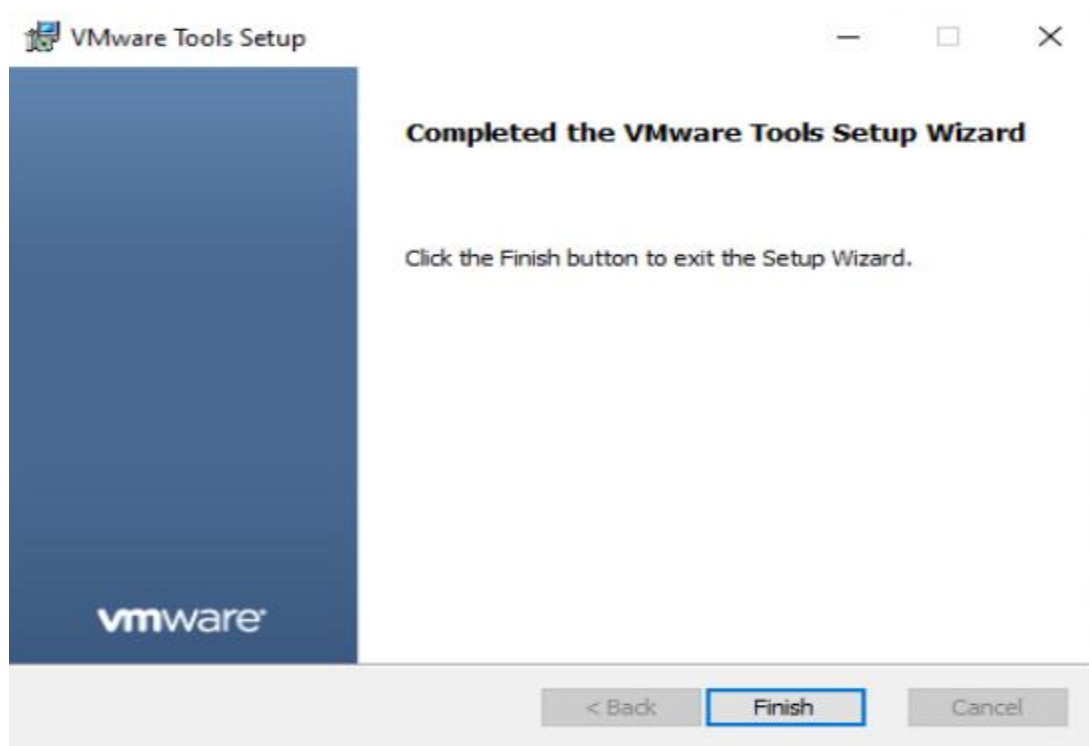
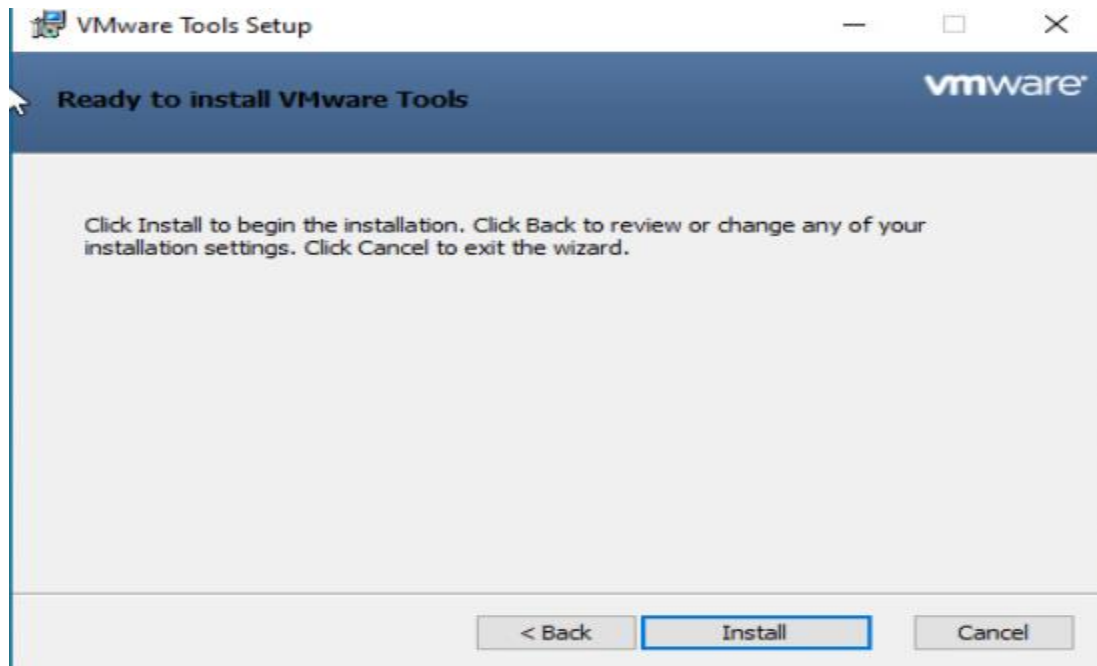


Lets you choose which program features to install and where to install them. Only advanced users should select this option.

< Back

Next >

Cancel



Activate Windows

Make sure the windows is activated. If you are using MAK or KMS then you can ignore this step. Within the lab, I do not have MAK or KMS. So, I will complete the activation before proceeding any further.

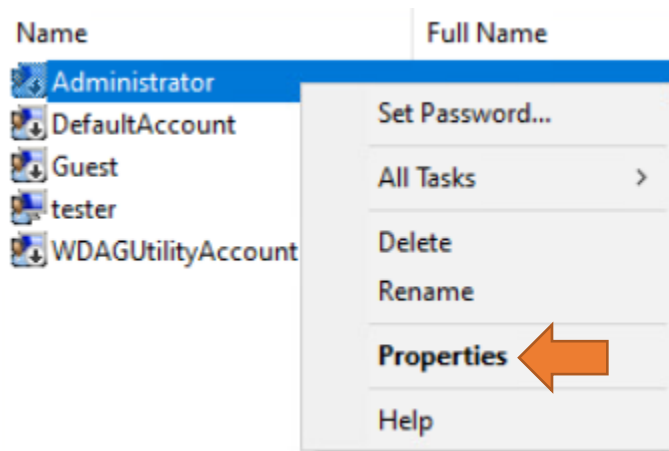
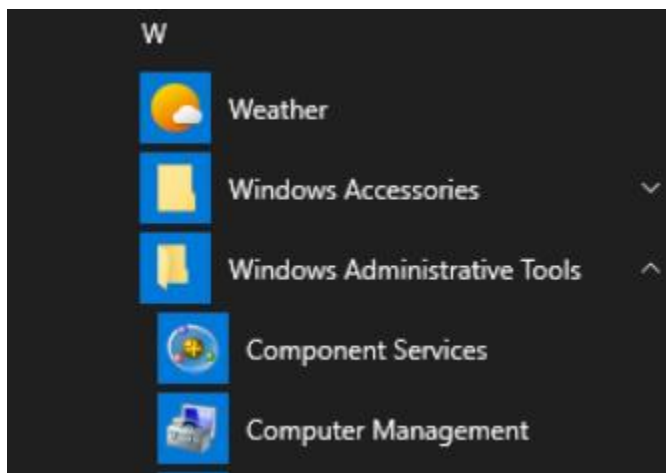
```
C:\> Administrator: KMS_VL_ALL Manual

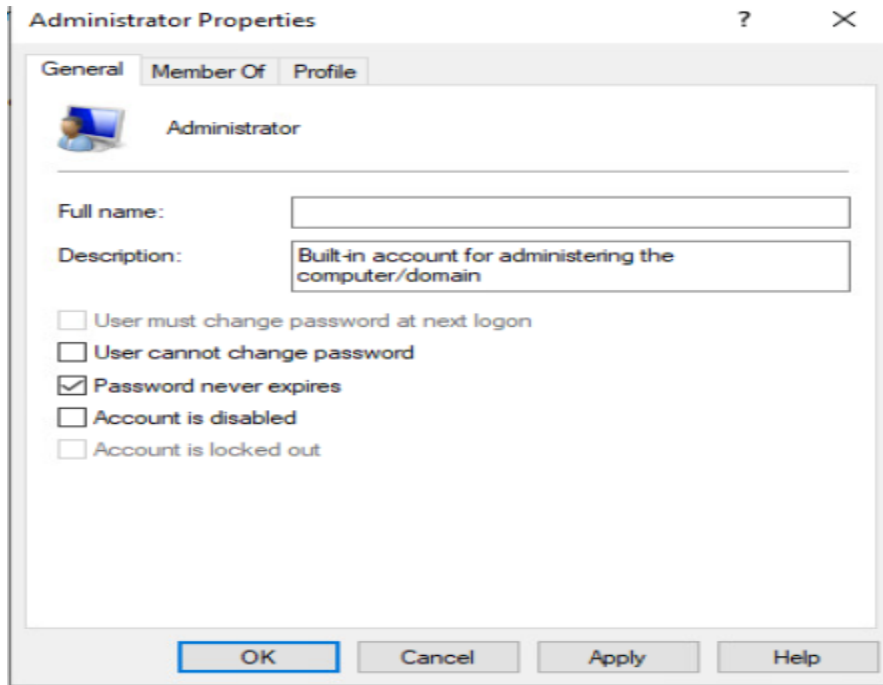
No Installed Office 2013/2016/2019 Product Detected...

Activating: Windows(R), Enterprise edition
Product Activation Successful
Remaining Period: 180 days (259200 minutes)
```

Enable Local Administrator Account

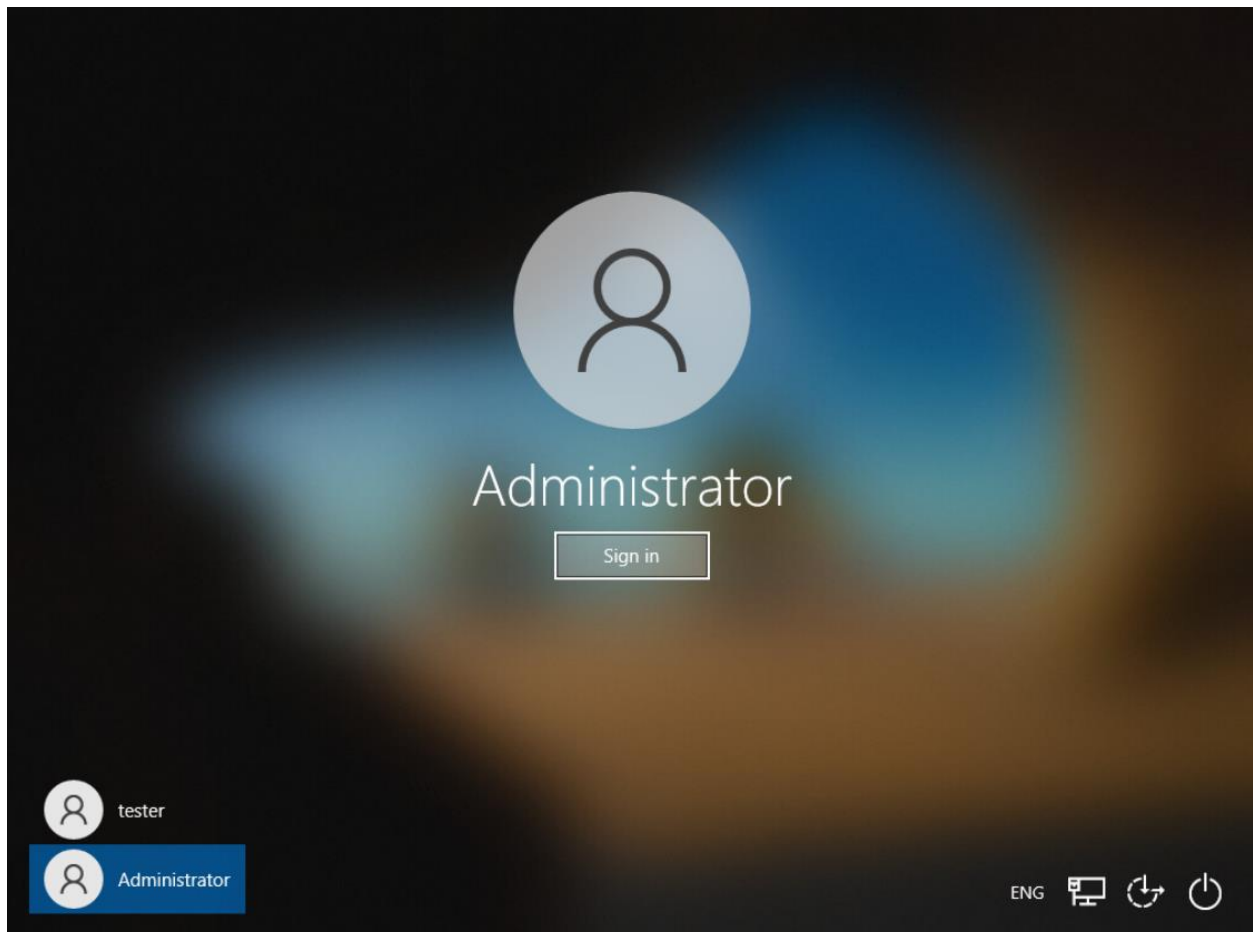
Click Start – Windows Administrative Tools – Computer Management

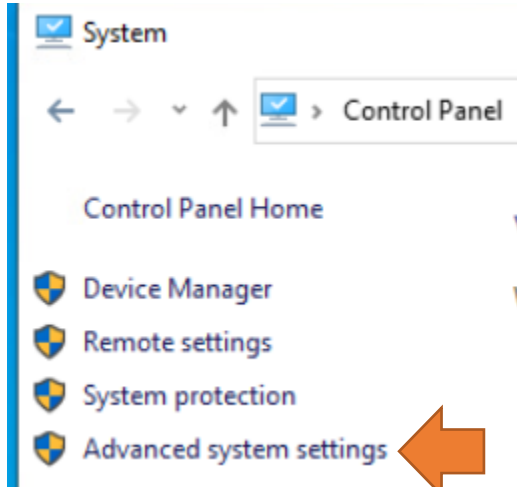
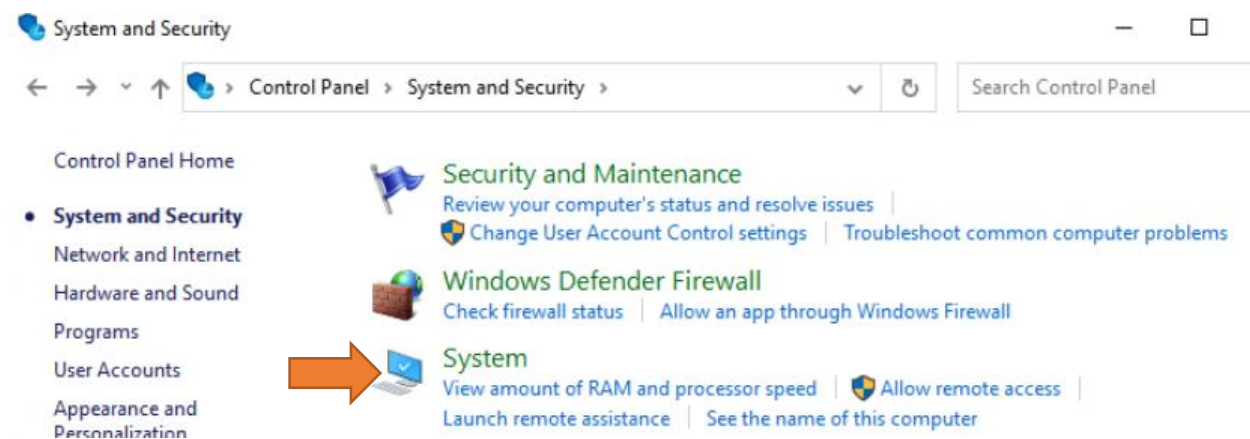
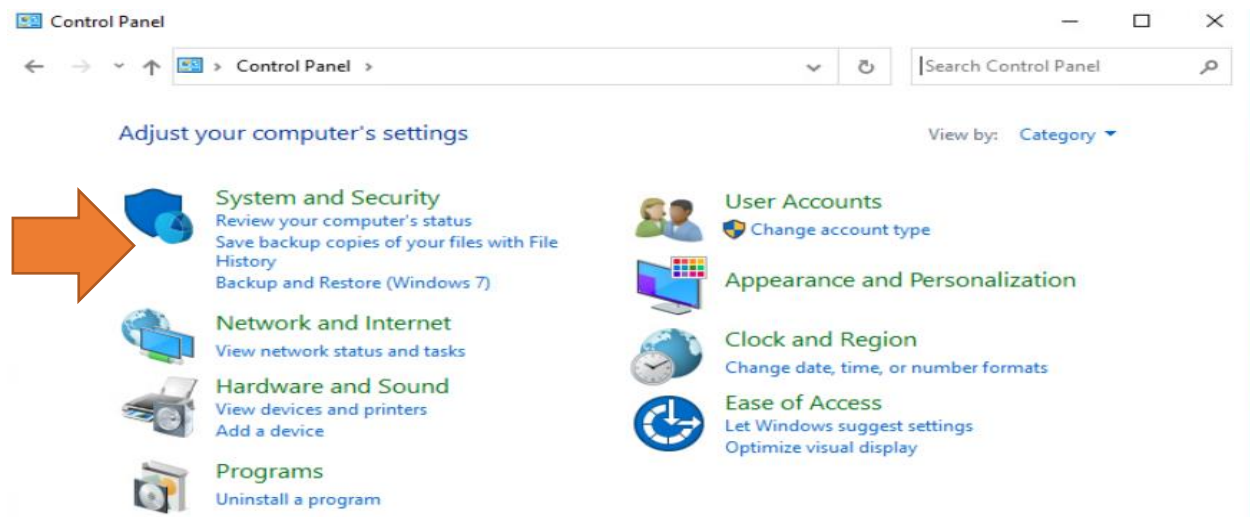
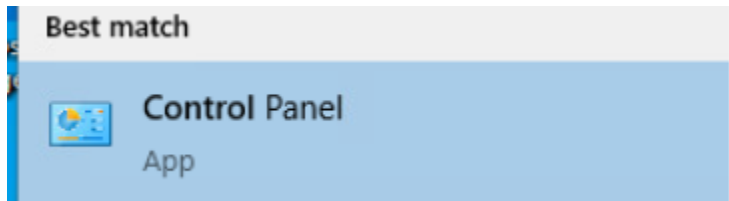




Delete User Profile

When we first completed Virtual Machine Operating System build, we did create a user called **TESTER**. We will delete this user now.





System Properties

Computer Name Hardware **Advanced** System Protection Remote

You must be logged on as an Administrator to make most of these changes.


Performance

Visual effects, processor scheduling, memory usage, and virtual memory

[Settings...](#)

User Profiles

Desktop settings related to your sign-in

 [Settings...](#)

User Profiles



User profiles store settings for your desktop and other information related to your user account. You can create a different profile on each computer you use, or you can select a roaming profile that is the same on every computer you use.

Profiles stored on this computer:

Name	Size	Type	Status	Mod...
Default Profile	1.50 MB	Local	Local	2020...
DESKTOP-OR3AV36\Admini...	1.26 MB	Local	Local	2020...
DESKTOP-OR3AV36\tester	414 MB	Local	Local	2020...

 [Change Type...](#)[Delete](#)[Copy To...](#)

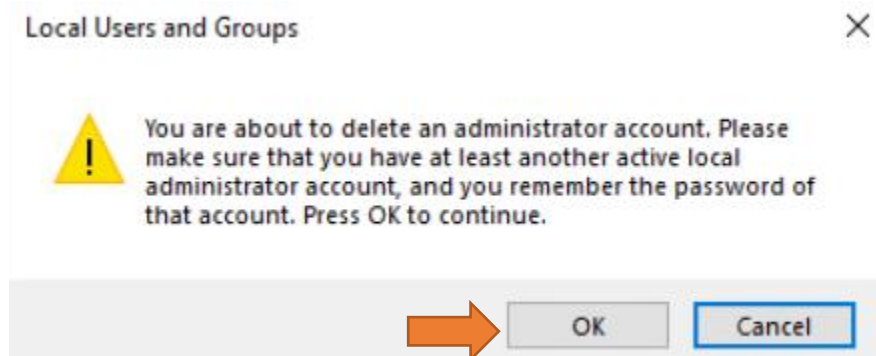
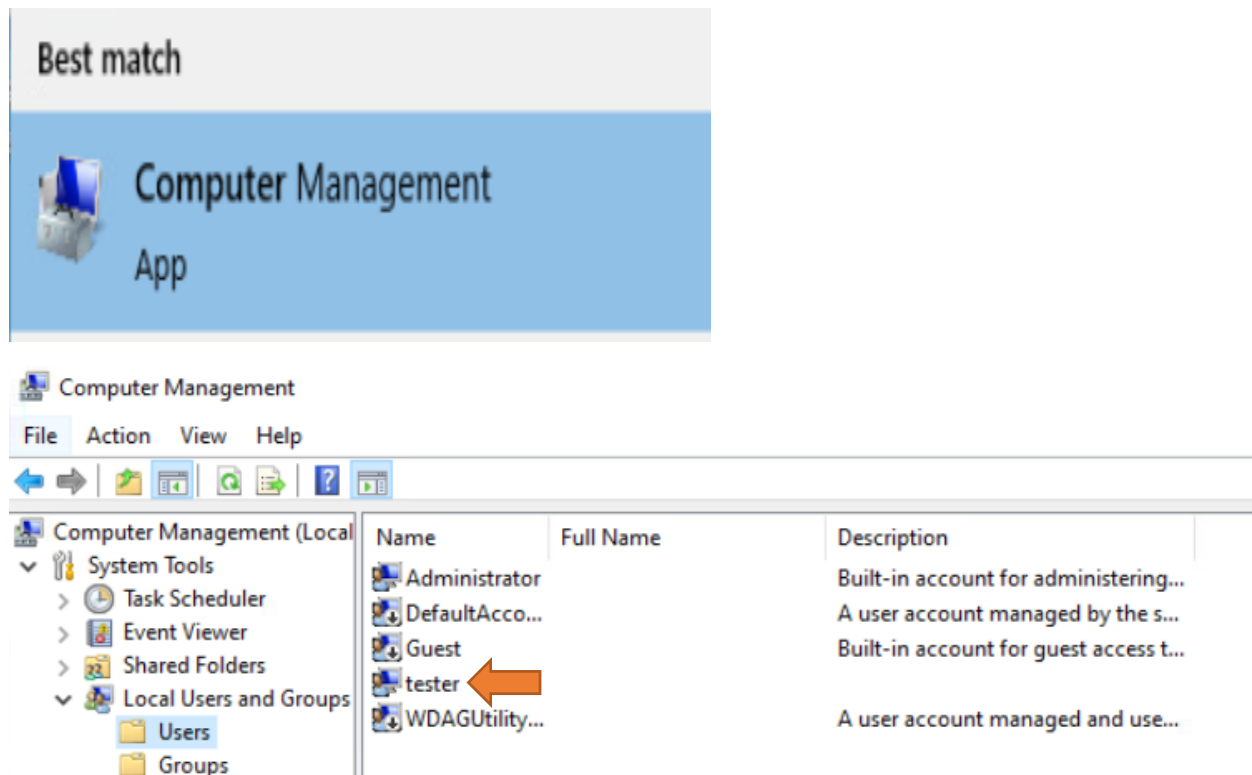
Confirm Delete



Are you sure you want to delete the profile for the following user: DESKTOP-OR3AV36\tester?

 [Yes](#)[No](#)


Go to Computer Management



Change Computer Name:

Right Click This PC - Properties

Best match

 **This PC**
App

System

Control Panel > System and Security > System


Control Panel Home

- Device Manager
- Remote settings
- System protection
- Advanced system settings

View basic information about your computer

Windows edition

Windows 10 Enterprise
© 2020 Microsoft Corporation. All rights reserved.

 **Windows 10**

System

Processor:	Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz 3.39 GHz
Installed memory (RAM):	3.00 GB
System type:	64-bit Operating System, x64-based processor
Pen and Touch:	No Pen or Touch Input is available for this Display

Computer name, domain, and workgroup settings

Computer name:	DESKTOP-OR3AV36	Change settings
Full computer name:	DESKTOP-OR3AV36	
Computer description:		
Workgroup:	WORKGROUP	

Windows activation


Windows is activated [Read the Microsoft Software License Terms](#)

Product ID: 00329-00000-00003-AA485 [Change product key](#)

See also
Security and Maintenance

System Properties

Computer Name Hardware Advanced System Protection Remote

 Windows uses the following information to identify your computer on the network.

Computer description:

For example: "Kitchen Computer" or "Mary's Computer".

Full computer name: DESKTOP-OR3AV36

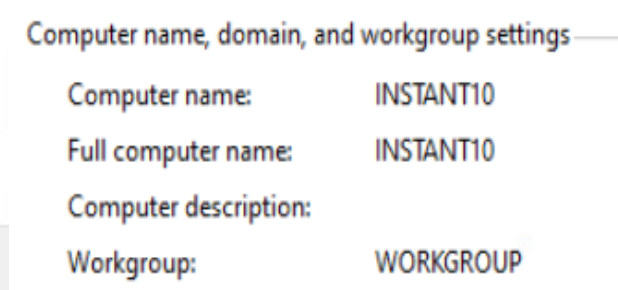
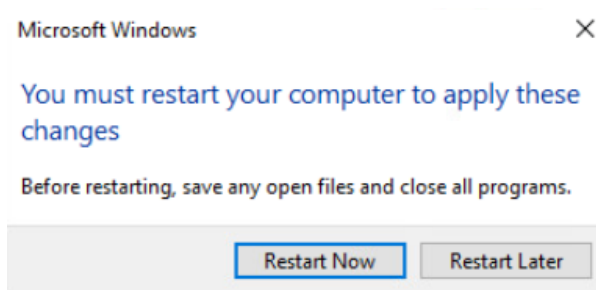
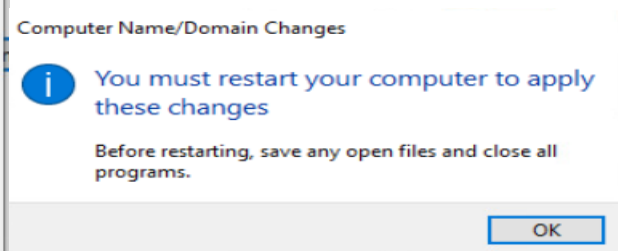
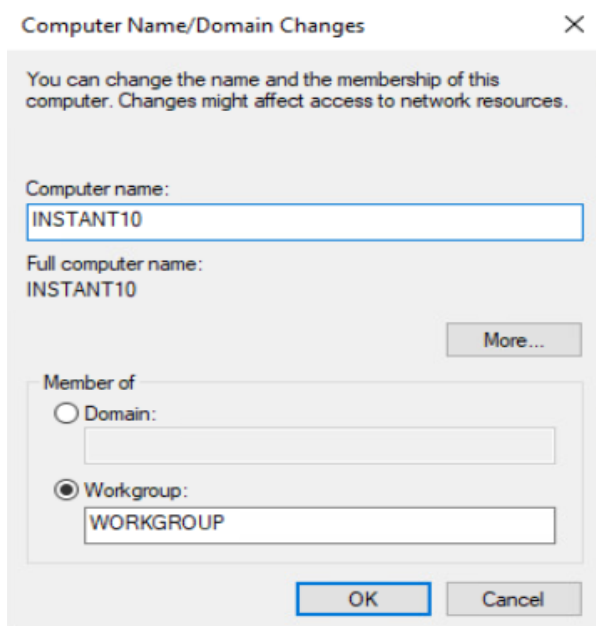
Workgroup: WORKGROUP

To use a wizard to join a domain or workgroup, click Network ID.

[Network ID...](#)

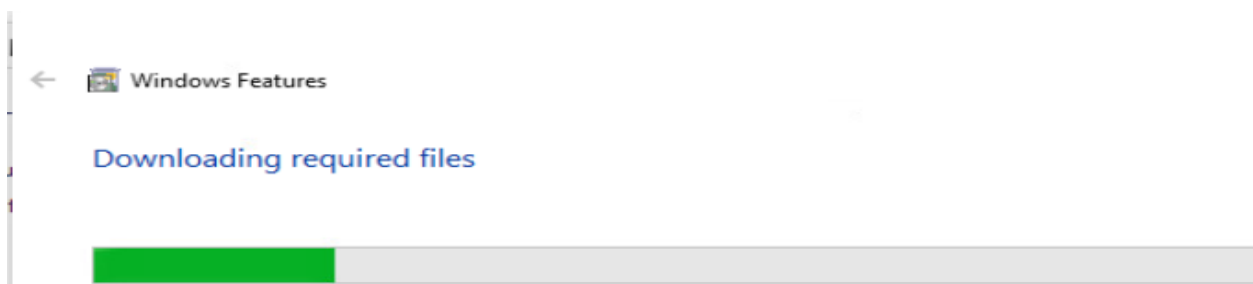
To rename this computer or change its domain or workgroup, click Change.

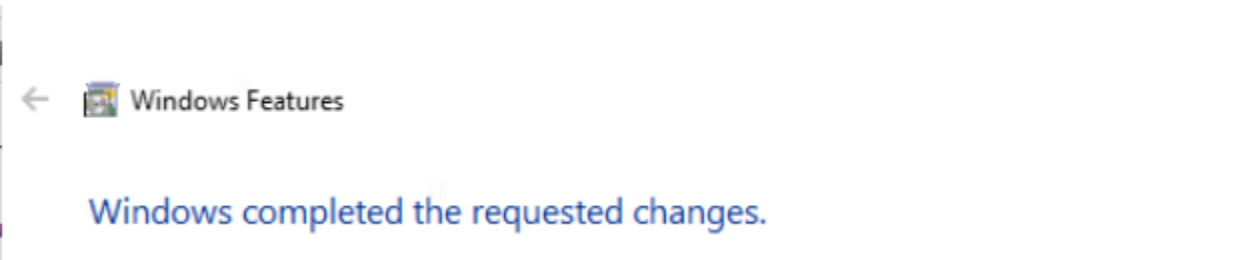
[Change...](#)



Install .NET Framework 3.5

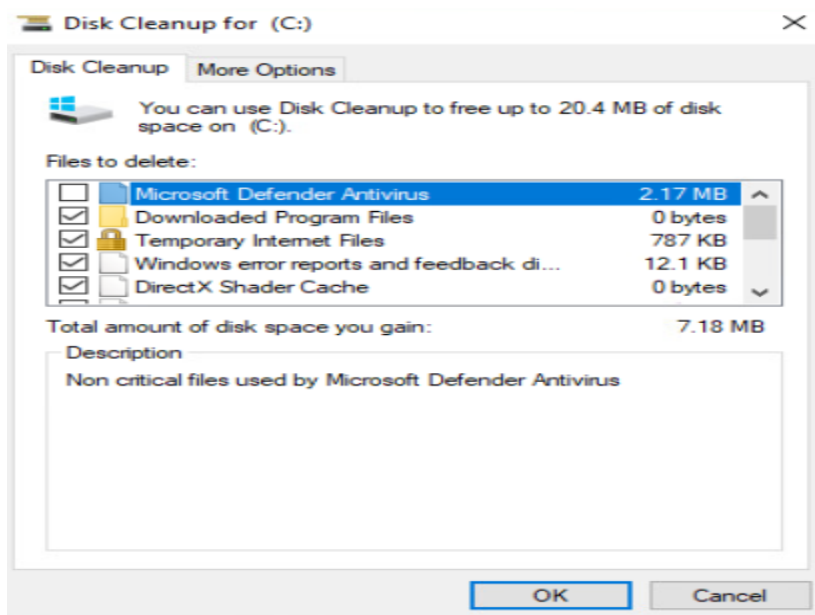
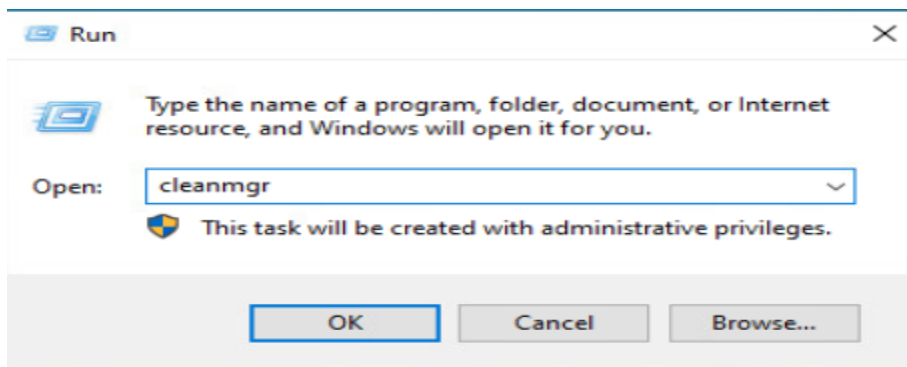
Go to: Control Panel – Programs – Programs and Features – Turn Windows Features on or off





Run Cleanup Manager

Click Start – Run



Set Power Option High

GO to: Control Panel – Hardware and Sound – Power Options.

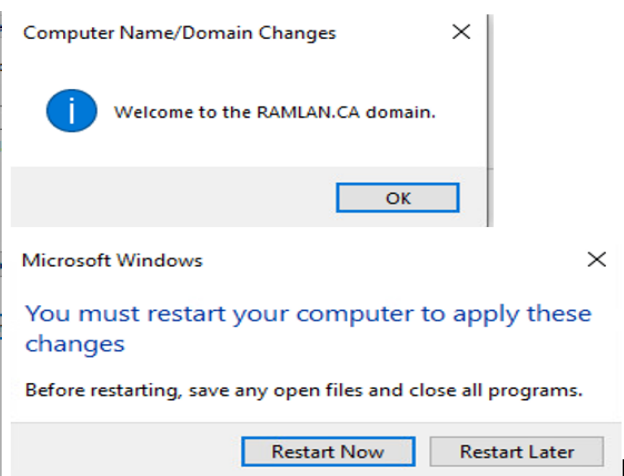
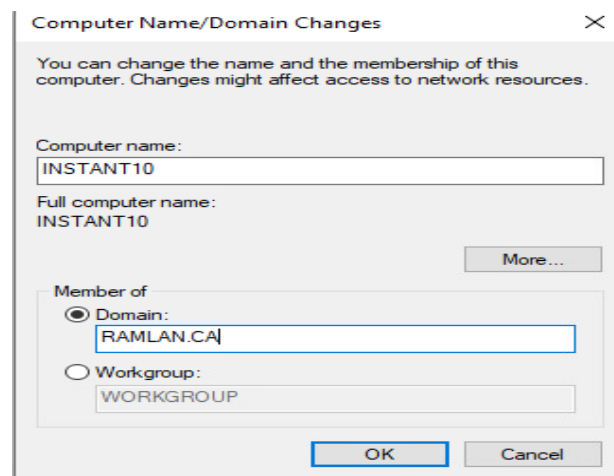
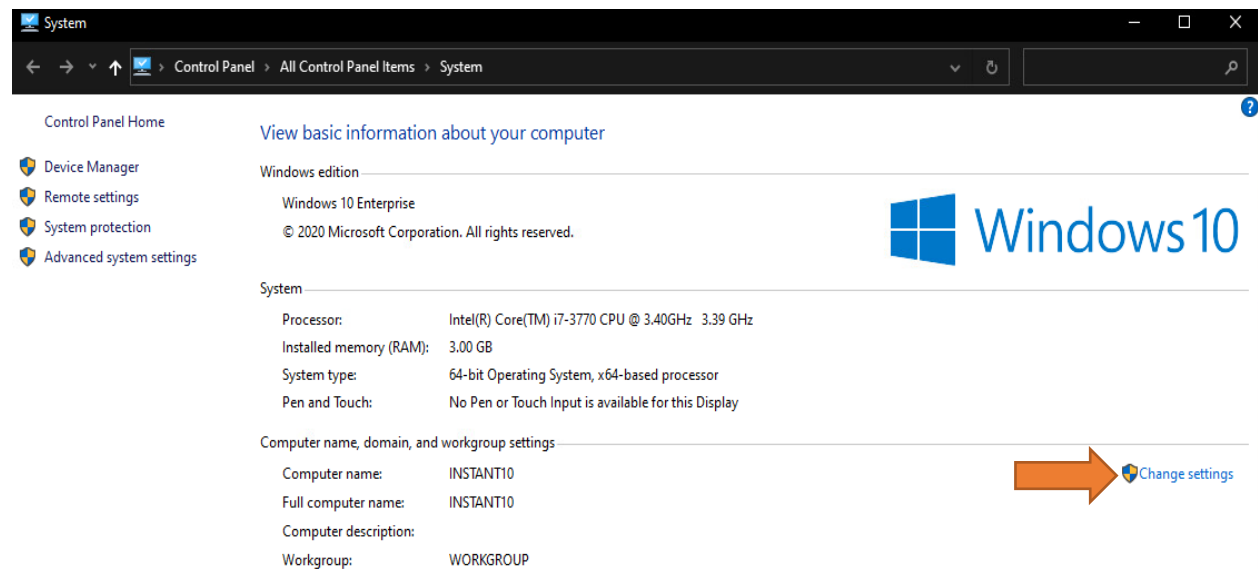
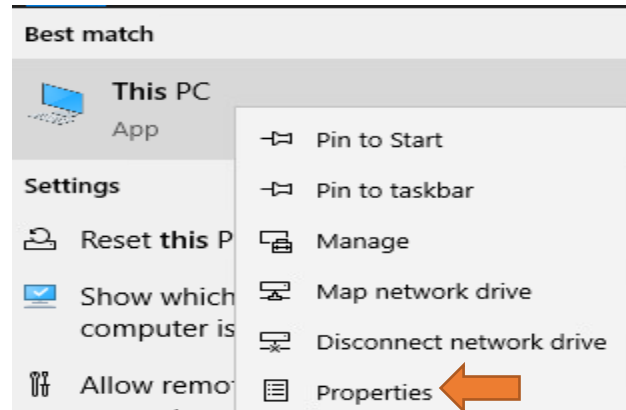
Click *Show Additional Power Plans*, Choose *High Performance*, and Click *Create a Power Plan*.

The screenshot shows the 'Create a Power Plan' window. The title bar reads 'Create a Power Plan'. The breadcrumb navigation shows '<< Power Options > Create a Power Plan'. Below the title, the heading is 'Create a power plan' with the instruction 'Start with an existing plan and give it a name.' There are three radio button options: 'Balanced (recommended)' (unselected), 'Power saver' (unselected), and 'High performance' (selected). Each option has a brief description. Below the options is a text box labeled 'Plan name:' containing the text 'VDI'. At the bottom right are 'Next' and 'Cancel' buttons.

The screenshot shows the 'Edit Plan Settings' window. The title bar reads 'Edit Plan Settings'. The breadcrumb navigation shows '<< Power Options > Edit Plan Settings'. The heading is 'Change settings for the plan: VDI' with the instruction 'Choose the sleep and display settings that you want your computer to use.' There are two settings: 'Turn off the display:' with a dropdown menu set to 'Never', and 'Put the computer to sleep:' with a dropdown menu set to 'Never'. At the bottom right are 'Create' and 'Cancel' buttons.

The screenshot shows the 'Power Options' window. The title bar reads 'Power Options'. The breadcrumb navigation shows '<< All Control Panel Items > Power Options'. The left sidebar has links: 'Control Panel Home', 'Choose what the power button does', 'Create a power plan', 'Choose when to turn off the display', and 'Change when the computer sleeps'. The main content area has the heading 'Choose or customize a power plan' and a paragraph explaining power plans. Below this is a section 'Preferred plans' with two radio button options: 'Balanced (recommended)' (unselected) and 'VDI' (selected). Each option has a 'Change plan settings' link to its right.

Join Machine to Domain

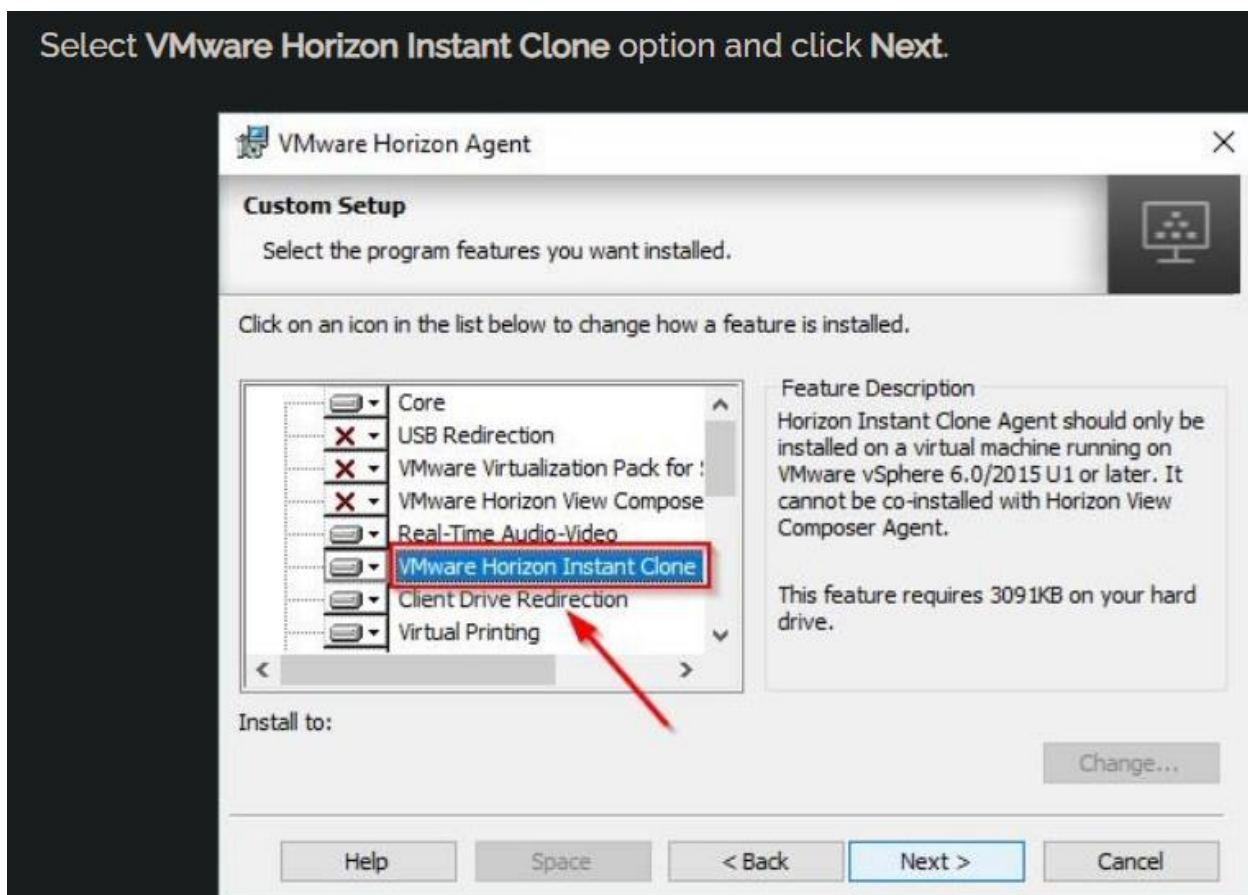


Install Required Applications

Name	Date modified
Office 2019 June 2020	2020-09-08 10:14 AM
03 VMware-Horizon-Agent-x86_64-8.0.0-16530789	2020-08-18 1:32 PM
04 VMware-Horizon-Agent-Direct-Connection-x86_64-8.0.0-16530789	2020-08-18 1:32 PM
05 VMware-Horizon-Client-2006-8.0.0-16531419	2020-08-28 9:46 AM
06 VMwareOSOptimizationTool	2020-08-25 3:46 AM
07 VMware-ThinApp-Enterprise-5.2.7-15851843	2020-08-18 2:07 PM
7z1806-x64	2019-01-13 9:24 AM
HorizonSessionRecordingAgent-2.1.10	2020-07-18 1:07 AM
sHaRewbb_winrar-x64-50b8Pre	2013-08-03 9:48 PM
vlc-3.0.5-win64	2018-12-30 12:40 PM
VMwareHorizonHelpDeskAgentMSI-1.5.0.21	2020-08-30 11:23 AM

I am going to install above applications in **ONE** go to reduce number of restarts. I will not provide screen shot as they are simple and straight forward. **I will install OS Optimization Tool at the end.**

When you install VMware Horizon Agent make sure you select this feature.



System Information

OS	Microsoft Windows 10 Enterprise	System Name	INSTANT10
Version	2004	User Name	Administrator
Processor	Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz	Windows Directory	C:\Windows
System Type	64-bit	System Directory	C:\Windows\system32
Physical Memory	3.00 GB	Windows Locale	Canada
Display Controller	VMware SVGA 3D	Display Adapter RAM	N/A
Network Adapter	Intel(R) 82574L Gigabit Network Connection		

Template VMware/Windows 10 and Server 2016 or later

Search

Modifications to Standard Image

- Apply HKKEY_USERS\temp(Default user profile) Settings
 - Change Explorer Default View
 - Cursor Blink
 - Cursor Blink Rate
 - Default Printer
 - Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU
 - Disable start screen for Office 2016/2019(1/3)
 - Disable first run screen for Office 2016/2019(2/3)
 - Disable first run screen for Office 2016/2019(3/3)
 - Disable animations for Office 2016/2019
 - Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU
 - Disable start screen for Office 2013(1/3)
 - Disable first run screen for Office 2013(2/3)
 - Disable first run screen for Office 2013(3/3)
 - Disable animations for Office 2013
 - Disable Hardware Acceleration (GPU Rendering) for Office 2013
 - Group policy - Do not add shares of recently opened documents

Analyze Common Options Optimize

Click Analyze button to review optimization items

Click Analyze

System Information

OS	Microsoft Windows 10 Enterprise	System Name	INSTANT10
Version	2004	User Name	Administrator
Processor	Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz	Windows Directory	C:\Windows
System Type	64-bit	System Directory	C:\Windows\system32
Physical Memory	3.00 GB	Windows Locale	Canada
Display Controller	VMware SVGA 3D	Display Adapter RAM	N/A
Network Adapter	Intel(R) 82574L Gigabit Network Connection		

Template VMware/Windows 10 and Server 2016 or later

Search

Modifications to Standard Image

- Apply HKKEY_USERS\temp(Default user profile) Settings
 - Change Explorer Default View
 - Cursor Blink
 - Cursor Blink Rate
 - Default Printer
 - Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU
 - Disable start screen for Office 2016/2019(1/3)
 - Disable first run screen for Office 2016/2019(2/3)
 - Disable first run screen for Office 2016/2019(3/3)
 - Disable animations for Office 2016/2019
 - Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU
 - Disable start screen for Office 2013(1/3)
 - Disable first run screen for Office 2013(2/3)
 - Disable first run screen for Office 2013(3/3)
 - Disable animations for Office 2013
 - Disable Hardware Acceleration (GPU Rendering) for Office 2013
 - Group policy - Do not add shares of recently opened documents

Analysis Summary

Optimization Not Applied Optimization Applied

Optimization	Description	Expected Result	Actual Result
Apply HKKEY_USERS\temp(Default user profile) Settings to Registry (194 items)			
Change Explorer Default View	Change explorer default view to This PC. Don't optimize the item when you use VMware Use	1	N/A
Cursor Blink	Disable cursor blink.	1	N/A
Cursor Blink Rate	Not set cursor blink rate.	-1	530
Default Printer	Set default printer to PrintShare.	1	4294967295
Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU	Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU	1	N/A
Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU	Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU	1	N/A
Disable start screen for Office 2016/2019(1/3)	Disable start screen for Office 2016/2019(1/3)	1	N/A
Disable first run screen for Office 2016/2019(2/3)	Disable first run screen for Office 2016/2019(2/3)	1	N/A
Disable first run screen for Office 2016/2019(3/3)	Disable first run screen for Office 2016/2019(3/3)	1	N/A
Disable animations for Office 2016/2019	Disable animations for Office 2016/2019	1	N/A
Disable Hardware Acceleration (GPU Rendering) for Office 2013(1/3)	Disable Hardware Acceleration (GPU Rendering) for Office 2013(1/3)	1	N/A
Disable first run screen for Office 2013(2/3)	Disable first run screen for Office 2013(2/3)	1	N/A
Disable first run screen for Office 2013(3/3)	Disable first run screen for Office 2013(3/3)	1	N/A
Disable animations for Office 2013	Disable animations for Office 2013	1	N/A
Disable Hardware Acceleration (GPU Rendering) for Office 2013	Disable Hardware Acceleration (GPU Rendering) for Office 2013	1	N/A
Group policy - Do not add shares of recently opened documents	Enable this policy, shared folders are not added to Network Locations automatically when you open a document in the shared folder.	1	N/A
Group policy - Maximum size of Active Directory search	Enable this policy, set Number of objects returned to 5000.	5000	N/A
Group policy - Clear the recent programs list for new users	Enable this policy, the recent programs list in the start menu will be blank for each new user.	1	N/A

Analyze Common Options **Optimize** Export Analysis Result

Click Optimize

Optimization Result

Optimization Result	Steps	Description	Expected Result	Actual Result
Apply HKKEY_USERS\temp(Default user profile) Settings to Registry (171 items)				
SUCCESS	Cursor Blink	Disable cursor blink.	1	N/A
SUCCESS	Cursor Blink Rate	Not set cursor blink rate.	-1	530
SUCCESS	Default Printer	Set default printer to PrintShare.	1	4294967295
SUCCESS	Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU	Disable Hardware Acceleration (GPU Rendering) for Microsoft Internet Explorer if there's no hardware GPU	1	N/A
SUCCESS	Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU	Disable Hardware Acceleration (GPU Rendering) for Microsoft Office 2010 if there's no hardware GPU	1	N/A
SUCCESS	Disable start screen for Office 2016/2019(1/3)	Disable start screen for Office 2016/2019(1/3)	1	N/A
SUCCESS	Disable first run screen for Office 2016/2019(2/3)	Disable first run screen for Office 2016/2019(2/3)	1	N/A
SUCCESS	Disable first run screen for Office 2016/2019(3/3)	Disable first run screen for Office 2016/2019(3/3)	1	N/A
SUCCESS	Disable animations for Office 2016/2019	Disable animations for Office 2016/2019	1	N/A
SUCCESS	Disable Hardware Acceleration (GPU Rendering) for Office 2013(1/3)	Disable Hardware Acceleration (GPU Rendering) for Office 2013(1/3)	1	N/A
SUCCESS	Disable first run screen for Office 2013(2/3)	Disable first run screen for Office 2013(2/3)	1	N/A
SUCCESS	Disable first run screen for Office 2013(3/3)	Disable first run screen for Office 2013(3/3)	1	N/A
SUCCESS	Disable animations for Office 2013	Disable animations for Office 2013	1	N/A
SUCCESS	Disable Hardware Acceleration (GPU Rendering) for Office 2013	Disable Hardware Acceleration (GPU Rendering) for Office 2013	1	N/A
SUCCESS	Group policy - Do not add shares of recently opened documents	Enable this policy, shared folders are not added to Network Locations automatically when you open a document in the shared folder.	1	N/A
SUCCESS	Group policy - Maximum size of Active Directory search	Enable this policy, set Number of objects returned to 5000.	5000	N/A
SUCCESS	Group policy - Clear the recent programs list for new users	Enable this policy, the recent programs list in the start menu will be blank for each new user.	1	N/A

Optimize Generalize Finalize Update Results History Remote Analysis My Templates Public Templates References

Export

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Organize	Uninstall	Change				
Name	Publisher	Installed On	Size	Version		
7-Zip 18.06 (x64 edition)	Igor Pavlov	2020-09-08	5.11 MB	18.06.00.0		
Adobe Acrobat Reader DC	Adobe Systems Incorporated	2020-09-08	315 MB	20.012.20043		
Classic Shell	IvoSoft	2020-09-08	13.1 MB	4.3.0		
Google Chrome	Google LLC	2020-09-08		85.0.4183.83		
Horizon HelpDesk Agent	VMware Inc. - Andrew Morgan	2020-09-08	136 MB	1.5.21		
Horizon Session Recording Agent	VMware	2020-09-08	3.12 MB	2.1.10		
Microsoft Edge	Microsoft Corporation	2020-09-08	73.7 MB	85.0.564.44		
Microsoft Office Professional Plus 2019 - en-us	Microsoft Corporation	2020-09-08		16.0.10361.20002		
Microsoft Office Professional Plus 2019 - fa-ir.proof	Microsoft Corporation	2020-09-08		16.0.10361.20002		
Microsoft OneDrive	Microsoft Corporation	2020-09-08	145 MB	20.134.0705.0008		
Microsoft Visual C++ 2013 Redistributable (x64) - 12....	Microsoft Corporation	2020-09-08	20.5 MB	12.0.40660.0		
Microsoft Visual C++ 2013 Redistributable (x86) - 12....	Microsoft Corporation	2020-09-08	17.1 MB	12.0.40660.0		
Microsoft Visual C++ 2015-2019 Redistributable (x64)...	Microsoft Corporation	2020-09-08	23.1 MB	14.24.28127.4		
Microsoft Visual C++ 2015-2019 Redistributable (x86)...	Microsoft Corporation	2020-09-08	20.1 MB	14.24.28127.4		
VLC media player	Videolan	2020-09-08		3.0.5		
VMware Horizon Agent	VMware, Inc.	2020-09-08	382 MB	8.0.0		
VMware Horizon Agent Direct-Connection Plugin	VMware, Inc.	2020-09-08	565 KB	8.0.0.16530789		
VMware Horizon Client	VMware, Inc.	2020-09-08	664 MB	8.0.0.13243		
VMware Tools	VMware, Inc.	2020-09-08	95.8 MB	11.1.0.16036546		
WinRAR 5.00 beta 8 (64-bit)	win.rar GmbH	2020-09-08		5.00.8		

```
C:\Windows\system32\cmd.exe
Administrator: C:\Windows\system32\cmd.exe

Windows IP Configuration

Host Name . . . . . : INSTANT10
Primary Dns Suffix . . . . . : RAMLAN.CA
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : RAMLAN.CA


Ethernet adapter Ethernet0:

Connection-specific DNS Suffix . : RAMLAN.CA
Description . . . . . : vmxnet3 Ethernet Adapter
Physical Address. . . . . : 00-50-56-83-F8-72
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::c0e8:a57c:7c89:8852%10(Preferred)
IPv4 Address. . . . . : 192.168.0.106(Preferred)
Subnet Mask . . . . . :
Lease Obtained. . . . . :
Lease Expires . . . . . :
Default Gateway . . . . . :
DHCP Server . . . . . :
DHCPv6 IAID . . . . . :
DHCPv6 Client DUID. . . . . :
DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Enabled
```

Run VDIWEAK batch script:

<https://www.plonius.com/single-post/2017/07/20/VDI-cleanup-script---the-decisive-factor>

1. Run a VDI clean-up script after all updates and configurations.

The VM will shut down after this (as you can see in the last lines)

Run this .bat every time the Windows is updated.

```
Administrator: Command Prompt

C:\Users\Administrator\Downloads\New folder>dir
Volume in drive C has no label.
Volume Serial Number is C46D-89FB

Directory of C:\Users\Administrator\Downloads\New folder

2020-09-08 11:38 AM <DIR> .
2020-09-08 11:38 AM <DIR> ..
2020-08-18 01:32 PM 240,659,008 03 VMware-Horizon-Agent-x86_64-8.0.0-16530789.exe
2020-08-18 01:32 PM 35,478,320 04 VMware-Horizon-Agent-Direct-Connection-x86_64-8.0.0-16530789.exe
2020-08-28 09:46 AM 233,240,536 05 VMware-Horizon-Client-2006-8.0.0-16531419.exe
2020-08-25 03:46 AM 15,792,176 06 VMwareOSOptimizationTool.exe
2020-08-18 02:07 PM 18,678,328 07 VMware-ThinApp-Enterprise-5.2.7-15851843.exe
2019-01-13 10:24 AM 1,742,848 7z1806-x64.msi
2020-09-08 11:15 AM 1,295,576 ChromeSetup.exe
2020-07-18 01:07 AM 6,312,600 HorizonSessionRecordingAgent-2.1.10.exe
2020-09-08 10:14 AM <DIR> Office 2019 June 2020
2013-08-03 09:48 PM 1,988,565 sHaRewbb_winrar-x64-50b8Pre.exe
2020-09-08 11:30 AM 2,513 VDITWEAK.BAT
2018-12-30 01:40 PM 41,898,072 vlc-3.0.5-win64.exe
2020-08-30 11:23 AM 63,321,600 VMwareHorizonHelpDeskAgentMSI-1.5.0.21.msi
12 File(s) 660,410,142 bytes
3 Dir(s) 19,813,752,832 bytes free

C:\Users\Administrator\Downloads\New folder>VDITWEAK.BAT
```

```
Administrator: Command Prompt - VDITWEAK.BAT

n=b03f5f7f11d50a3a' or one of its dependencies. The system cannot find the file specified. while compiling method VSTOCO
ntainerControl.EnsureMessageFilterHook
Could not load file or assembly 'Microsoft.VisualStudio.OLE.Interop, Version=7.1.40304.0, Culture=neutral, PublicKeyToke
n=b03f5f7f11d50a3a' or one of its dependencies. The system cannot find the file specified. while compiling method VSTOCO
ntainerControl.UninstallMessageFilterHook
Microsoft.VisualStudio.Tools.Office.ContainerControl.v10.0, Version=10.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11
d50a3a
Compiling assembly Microsoft.VisualStudio.Tools.Office.Excel.AddInProxy.v9.0, Version=9.0.0.00000000, Culture=neutra
l, PublicKeyToken=b03f5f7f11d50a3a (CLR v2.0.50727) ...
Microsoft.VisualStudio.Tools.Office.Excel.AddInProxy.v9.0, Version=9.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d5
0a3a
Compiling assembly Microsoft.VisualStudio.Tools.Office.Runtime.v10.0, Version=10.0.0.00000, Culture=neutral, Publick
eyToken=b03f5f7f11d50a3a (CLR v2.0.50727) ...
Microsoft.VisualStudio.Tools.Office.Runtime.v10.0, Version=10.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a
Compiling assembly Microsoft.VisualStudio.Tools.Office.Word.AddInProxy.v9.0, Version=9.0.0.00000000, Culture=neutral
, PublicKeyToken=b03f5f7f11d50a3a (CLR v2.0.50727) ...
Microsoft.VisualStudio.Tools.Office.Word.AddInProxy.v9.0, Version=9.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50
a3a
Compiling assembly Microsoft.WSMan.Management, Version=1.0.0.0, Culture=Neutral, PublicKeyToken=31bf3856ad364e35, pr
ocessorArchitecture=msil (CLR v2.0.50727) ...
Microsoft.WSMan.Management, Version=1.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
Compiling assembly Microsoft.WSMan.Runtime, Version=1.0.0.0, Culture=Neutral, PublicKeyToken=31bf3856ad364e35, proce
ssorArchitecture=msil (CLR v2.0.50727) ...
Microsoft.WSMan.Runtime, Version=1.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
Compiling assembly WindowsBase, Version=3.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35 (CLR v2.0.50727) .
..
WindowsBase, Version=3.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
Compiling assembly PresentationCore, Version=3.0.0.0, Culture=Neutral, PublicKeyToken=31bf3856ad364e35, processorArc
hitecture=amd64 (CLR v2.0.50727) ...
```

```
Administrator: Command Prompt - VDITWEAK.BAT

Total fragmented space = 10%
Average fragments per file = 1.05

Movable files and folders = 103323
Unmovable files and folders = 7

Files:
Fragmented files = 1554
Total file fragments = 4951

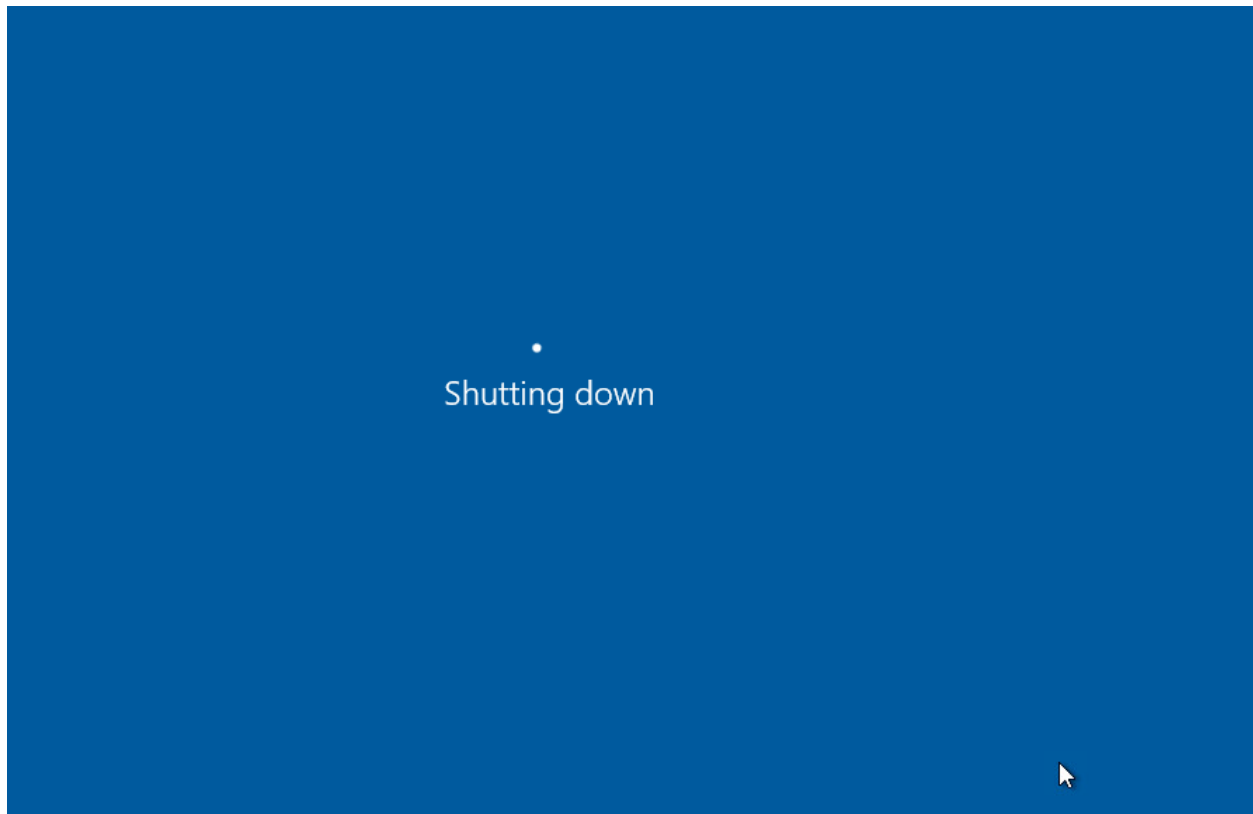
Folders:
Total folders = 6883
Fragmented folders = 171
Total folder fragments = 476

Free space:
Free space count = 3842
Average free space size = 7.58 MB
Largest free space size = 24.03 GB

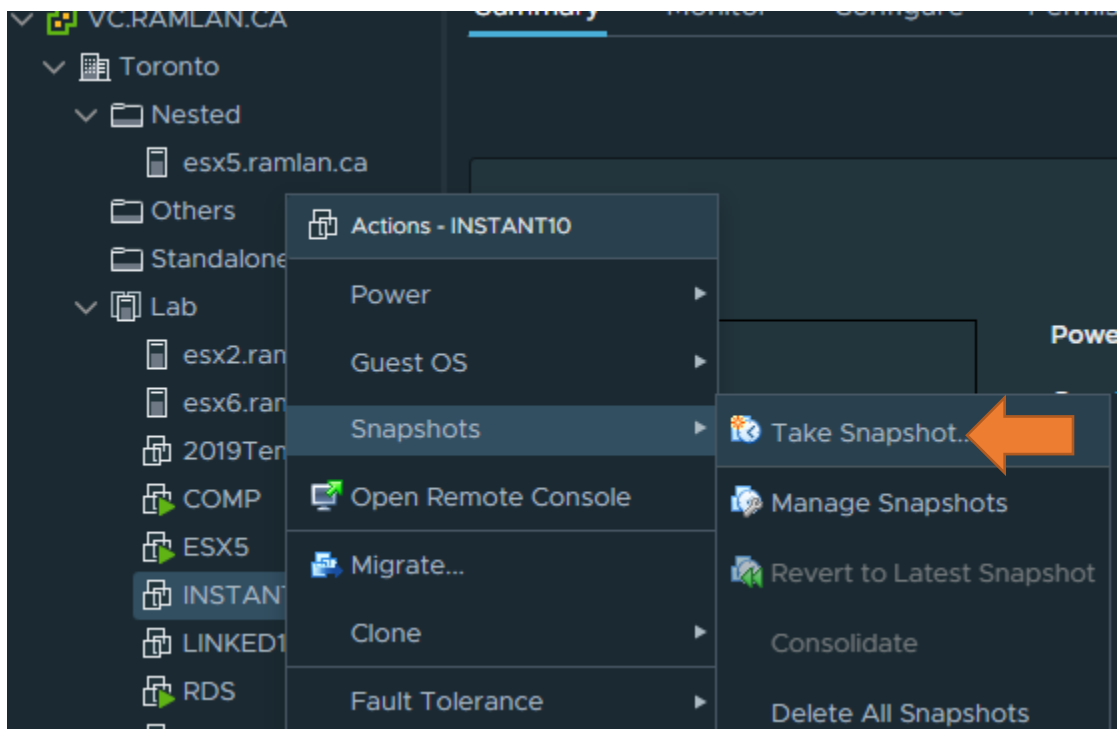
Master File Table (MFT):
MFT size = 166.75 MB
MFT record count = 170751
MFT usage = 100%
Total MFT fragments = 1

Note: File fragments larger than 64MB are not included in the fragmentation statistics.

Performing pass 1:
Defragmentation: 43% complete...
```

Take Snapshot:



Take Snapshot | INSTANT10

Name

Full Customization OS WIN 10

Description

This snapshot is taken after the OS is fully customized for linked clone deployment.

☐ Snapshot the virtual machine's memory

☐ Quiesce guest file system (Needs VMware Tools installed)

CANCEL

OK

Manage Snapshots | INSTANT10

INSTANT10

Full Customization OS WIN 10

You are here

Name

Full Customization OS WIN 10

Description

This snapshot is taken after the OS is fully customized for linked clone deployment.

Created

09/08/2020, 12:03:45 PM

Disk usage

18.14 GB

Snapshot the virtual machine's memory

No

Quiesce guest file system

No

DELETE ALL

DELETE

REVERT TO

EDIT

DONE

I will perform linked clone deployment in Part 5.

Thanks

Ram Lan

8th Sep 2020

<https://mulcas.com/vdi-lab-2018-part-11-create-a-windows-10-golden-image/>