OpenVPN Installation, Automatic Start and Automatic Connection using Windows 8.1

This presentation installs OpenVPN. The presentation configures OpenVPN to launch at startup and log into the M State mait VPN. The presentation joins the domain "mait.minnesota.edu".

OS: Windows 8.1

Preuss
9/1/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

The presentation logs into a virtual machine as non-administrator. This screen shows the virtual machine configuration.

Virtual Machine Settings

Hardware | Options

Device	Summary
Memory	4 GB
Processors	2
Hard Disk (SCSI)	60 GB
CD/DVD (SATA)	Using file D:\msdnaa\win8_1...
Network Adapter	Bridged (Automatic)
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

Add... Remove

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine: 4096 MB

64 GB
32 GB
16 GB
8 GB
4 GB
2 GB
1 GB
512 MB
256 MB
128 MB
64 MB
32 MB
16 MB
8 MB
4 MB

Maximum recommended memory
(Memory swapping may occur beyond this size.)
27.7 GB

Recommended memory
2 GB

Guest OS recommended minimum
1 GB

⚠ Changes to the amount of memory will not take effect until the virtual machine is powered off.

The virtual machine will use up to 1 GB of this memory for graphics memory. You can change this amount in the Display settings page.

OK Cancel Help

2:37 PM
3/31/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

Documents

File Home Share View

This PC ▸ Documents ▸

Search Documents

Favorites
Desktop
Downloads
Recent places

This PC

Network

Name	Date modified	Type	Size
Database1.accdb	9/1/2020 1:49 PM	Microsoft Access ...	348 KB
vpn-fall2020.zip	5/7/2020 11:01 AM	Compressed (zipp...	16,714 KB

The presentation downloads a copy of the current semester VPN zip file from the class D2L Bright Space page.

2 items

2:47 PM
9/1/2020

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Player

Recycle Bin

Compressed Folder Tools

Downloads

vpn-spring2020

File Home Share View

This PC ▸ Downloads ▸ vpn-spring2020 ▸

Search vpn-spring2020

Favorites
Desktop
Downloads
Recent places

Name	Date modified	Type	Size
vpn	3/31/2020 2:38 PM	File folder	

The presentation uncompresses the zip file. The presentation enters the folder shown.

1 item

2:38 PM
3/31/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

vpn-fall2020

File Home Share View

This PC ▸ Documents ▸ vpn-fall2020 ▸ vpn-fall2020 ▸

Search vpn-fall2020

Favorites
Desktop
Downloads
Recent places

This PC

Network

Name	Date modified	Type	Size
android	9/1/2020 2:48 PM	File folder	
ios	9/1/2020 2:48 PM	File folder	
linux	9/1/2020 2:48 PM	File folder	
mac	9/1/2020 2:48 PM	File folder	
old_windows	9/1/2020 2:48 PM	File folder	
windows	9/1/2020 2:48 PM	File folder	

The presentation opens the "old_windows" folder.

The "windows" folder is only for Windows 10 systems.

6 items

2:48 PM
9/1/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

old_windows

Application Tools

File Home Share View Manage

This PC ▸ Documents ▸ vpn-fall2020 ▸ vpn-fall2020 ▸ old_windows

Search old_windows

Favorites
Desktop
Downloads
Recent places

This PC

Network

Name	Date modified	Type	Size
openvpn-egypt-UDP4-1194-fall2020-student-install-2.3.18-I002-i686.exe	5/7/2020 10:59 AM	Application	1,934 KB
openvpn-egypt-UDP4-1194-fall2020-student-install-2.3.18-I002-x86_64.exe	5/7/2020 10:59 AM	Application	2,253 KB
openvpn-egypt-UDP4-1194-fall2020-student-install-2.3.18-I602-i686.exe	5/7/2020 10:59 AM	Application	1,945 KB
openvpn-egypt-UDP4-1194-fall2020-student-install-2.3.18-I602-x86_64.exe	5/7/2020 10:59 AM	Application	2,264 KB
openvpn-egypt-UDP4-1194-fall2020-student-install-2.4.9-I601-Win7.exe	5/7/2020 10:58 AM	Application	4,294 KB

The presentation launches the OpenVPN Windows 7 installer as shown above.

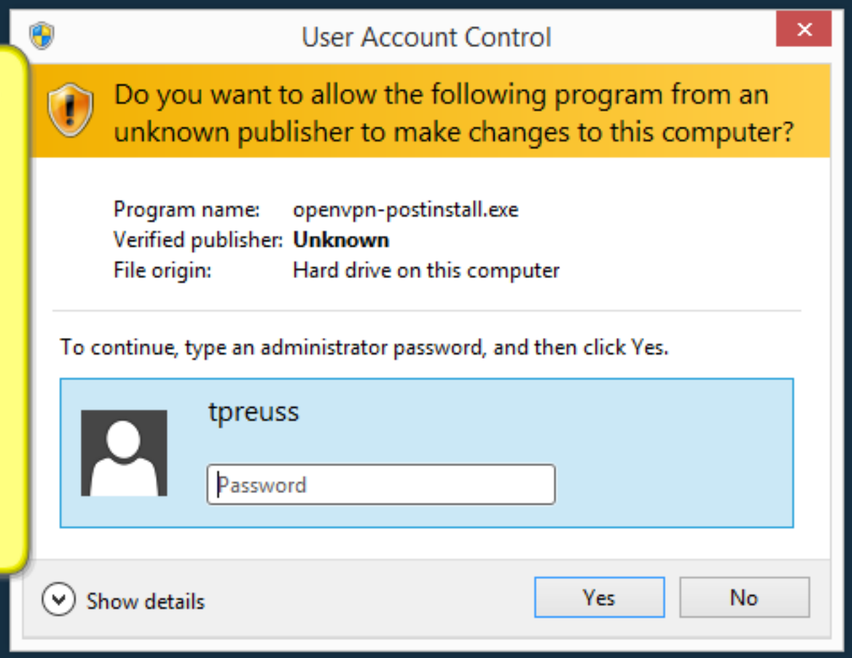
5 items 1 item selected 4.19 MB

2:49 PM
9/1/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

The presentation gives administration permission to the OpenVPN installer.



win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN Configuration Setup

Welcome to OpenVPN installer.

This wizard will guide you through the installation of the OpenVPN client and configuration.

This will automatically install the configuration files needed for your connection.

Install | Cancel

The presentation selects "Install" to continue.

2:39 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN 2.4.7-I603 Setup

Welcome to the OpenVPN 2.4.7-I603 Setup Wizard

This wizard will guide you through the installation of OpenVPN , an Open Source VPN package by James Yonan.

Note that the Windows version of OpenVPN will only run on Windows Vista, or higher.

Next >

Cancel

The presentation selects "Next" to continue

2:39 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN 2.4.7-I603 Setup

OPENVPN

License Agreement

Please review the license terms before installing OpenVPN 2.4.7-I603.

Press Page Down to see the rest of the agreement.

OpenVPN (TM) -- An Open Source VPN daemon

Copyright (C) 2002-2018 OpenVPN Inc <sales@openvpn.net>

This distribution contains multiple components, some
of which fall under different licenses. By using OpenVPN
or any of the bundled components enumerated below, you
agree to be bound by the conditions of the license for
each respective component.

OpenVPN trademark

If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install OpenVPN 2.4.7-I603.

Nullsoft Install System v2.51-1

< Back | I Agree | Cancel

The presentation reviews the license. The presentation selects "I Agree" to contnue.

2:39 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN 2.4.7-I603 Setup

Choose Components

Choose which features of OpenVPN 2.4.7-I603 you want to install.

Select the components to install/upgrade. Stop any OpenVPN processes or the OpenVPN service if it is running. All DLLs are installed locally.

Select components to install:

- OpenVPN User-Space Components
- OpenVPN Service
- TAP Virtual Ethernet Adapter
- OpenVPN GUI
- EasyRSA 2 Certificate Management Scripts
- **Advanced**

Space required: 14.1MB

Description

Position your mouse over a component to see its description.

Nullsoft Install System v2.51-1

< Back | Next > | Cancel

The presentation reviews the license. The presentation selects "I Agree" to contnue.

2:39 PM
3/31/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

You do not need to do anything under "Advance" option. The presentation shows you the settings used.

OpenVPN 2.4.9-I601-Win7 Setup

OPENVPN
The open source VPN

Choose Components

Choose which features of OpenVPN 2.4.9-I601-Win7 you want to install.

Select the components to install/upgrade. Stop any OpenVPN processes or the OpenVPN service if it is running. All DLLs are installed locally.

Select components to install:

- **Advanced**
  - OpenVPN File Associations
  - Add Shortcuts to Start Menu
  - Launch OpenVPN GUI on User Logon
  - Disable Password Save Feature in OpenVPN

Space required: 15.4MB

Description

Position your mouse over a component to see its description.

Nullsoft Install System v2.51-1

< Back | Next > | Cancel

2:50 PM
9/1/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN 2.4.7-I603 Setup

OPENVPN

Choose Install Location

Choose the folder in which to install OpenVPN 2.4.7-I603.

Setup will install OpenVPN 2.4.7-I603 in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.

Destination Folder

C:\Program Files\OpenVPN

Browse...

Space required: 14.1MB
Space available: 42.4GB

Nullsoft Install System v2.51-1

< Back | Install | Cancel

The presentation leaves the default options. The presentation does not make any changes. The presentation selects "Next" to continue.

2:39 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN 2.4.7-I603 Setup

Windows Security

Would you like to install this device software?

Name: TAP-Windows Provider V9 Network adapters
Publisher: OpenVPN Technologies, Inc.

Always trust software from "OpenVPN Technologies, Inc.".

Install | Don't Install

You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

Installing TAP (may need confirmation)...

Nullsoft Install System v2.51-1

< Back | Next > | Cancel

The presentation selects "Install" to install the device software.

2:40 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

OpenVPN 2.4.7-I603 Setup

OPENVPN

Installation Complete

Setup was completed successfully.

Completed

Output folder: C:\Program Files\OpenVPN
Extract: icon.ico
Output folder: C:\Program Files\OpenVPN\doc
Extract: license.txt
Created uninstaller: C:\Program Files\OpenVPN\Uninstall.exe
Starting OpenVPN Interactive Service
Checking .NET Framework version...
.NET Framework 4.0 Full found, no need to install.
Proceeding with remainder of installation.
Completed

Nullsoft Install System v2.51-1

< Back | Next > | Cancel

The presentation selects "Next" to continue.

2:40 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

OpenVPN 2.4.7-I603 Setup

Completing the OpenVPN 2.4.7-I603 Setup Wizard

OpenVPN 2.4.7-I603 has been installed on your computer.

Click Finish to close this wizard.

Show Readme

< Back | Finish | Cancel

The presentation selects "Finish" to continue.

2:40 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

INSTALL-win32 - Notepad

File Edit Format View Help

```
GENERAL QUICKSTART FOR WINDOWS

OpenVPN requires a configuration file and key/certificate files. You should
obtain these and save them to OpenVPN's configuration directory, usually
C:\Program Files\OpenVPN\config. Starting with OpenVPN 2.4-alpha1 you can also
put user-specific configurations to %USERPROFILE%\OpenVPN\config when using
OpenVPN GUI.

You can run OpenVPN as a Windows system service, by u
command-prompt. To use the OpenVPN GUI, double click
start menu icon. OpenVPN GUI is a system-tray applet,
will appear in the lower-right corner of the screen.
tray icon, and a menu should appear showing the names
configuration files, and giving you the option to con
2.4-alpha1 admin privileges are no longer required fo
connections using configuration files stored in the g
(usually C:\Program Files\OpenVPN\config). Users who
administrator group, or to the local "OpenVPN Adminis
store configuration files under %USERPROFILE%\OpenVPN
cases OpenVPN Interactive Service needs to be running
administrator privileges are still required to succes
connections. For further details please refer to Open

    https://github.com/OpenVPN/openvpn-gui

OpenVPN 2.4-alpha1 and later come bundled with three

    OpenVPNService (new, improved background service)
    OpenVPNServiceInteractive (required to run GUI as
    OpenVPNServiceLegacy (deprecated background servi
```

OpenVPN Configuration Setup

Installation Complete

Setup was completed successfully.

Completed

Pausing installation while OpenVPN installer runs.
Execute: ".\openvpn-install.exe"
Completed OpenVPN installation.
Installing configuration files ...
Installing certificate and key files ...
Completed

Nullsoft Install System v2.50-1

< Back | Close | Cancel

The presentation selects "Close" to continue. The presentation closes the "Notepad" window.

2:40 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Start

preuss

Sleep

Shut down

Restart

The presentation selects "Restart" to continue the installation.

Mail

Internet Explorer

Calendar

Help+Tips

OneDrive

Store

Photos

OneNote

Weather

Health & Fitness

Food & Drink

People

Skype

Maps

Reading List

Desktop

Hospitals firing workers who speak out about lack of gear

The NCAA basketball tourney is cancelled. ESP...

▼ DOW
▼ FTSE 100
▼ NIKKEI 225

Money

1 new app installed

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The presentation clicks on "^" symbol to show this screen.

The presentation right click on the computer with lock icon.

Customize...

2:41 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The presentation selects "Connect".

Connect
Disconnect
Reconnect
Show Status
View Log
Edit Config
Clear Saved Passwords
Import file...
Settings...
Exit

Customize...

2:41 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The virtual machine successfully connected to the M State mait vpn.

egypt-UDP4-1194-spring2020_student-config is now connected.
Assigned IP: 192.168.164.2, 2607:f930:1200:acff::1000

2:42 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Command Prompt

```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\preuss>cd documents

C:\Users\preuss\Documents>ping chile.mait.minnesota.edu

Pinging chile.mait.minnesota.edu [2607:f930:1200:ac00:60bc:5348:8891:b366] with
32 bytes of data:
Reply from 2607:f930:1200:ac00:60bc:5348:8891:b366: time=30ms
Reply from 2607:f930:1200:ac00:60bc:5348:8891:b366: time=31ms
Reply from 2607:f930:1200:ac00:60bc:5348:8891:b366: time=30ms
Reply from 2607:f930:1200:ac00:60bc:5348:8891:b366: time=32ms

Ping statistics for 2607:f930:1200:ac00:60bc:5348:8891:b366:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 30ms, Maximum = 32ms, Average = 30ms

C:\Users\preuss\Documents>
```

The presentation successfully tests the connection to the "mait.minnesota.edu" network over the vpn.

2:42 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Local Disk (C:)

File Home Share View

This PC ▸ Local Disk (C:)

Search Local Disk (C:)

Favorites
Desktop
Downloads
Recent places

This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
DVD Drive (D:) IR5_C

Network

Name	Date modified	Type	Size
PerfLogs	8/22/2013 10:22 AM	File folder	
Program Files	3/31/2020 2:39 PM	File folder	
Program Files (x86)	12/15/2019 5:56 PM	File folder	
Users	12/15/2019 6:18 PM	File folder	
Windows	3/31/2020 11:49 AM	File folder	
openvpn	3/31/2020 2:44 PM	File folder	

The presentation creates an "openvpn" folder on the root directory as shown.

Really this directory could be anywhere, but the root directory makes the folder easier to find later.

6 items 1 item selected

2:44 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The presentation opens "Notepad" and creates the batch file shown.

Remember to save the file as "openvpn_autostart.bat". It is important "Notepad" saves the file as all file types.

openvpn_autostart - Notepad

File Edit Format View Help

```
REM This is the OpenVPN Autostart batch file
REM https://www.ovpn.com/en/blog/windows-run-openvpn-automatically-on-computer-startup/
REM https://www.smarthomebeginner.com/auto-connect-to-openvpn-windows-10/
REM Task Scheduler setup: https://www.sevenforums.com/tutorials/67503-task-create-run-program-startup-log.html
REM Preuss 3/30/2020


echo "Starting VPN"
"c:\program files\openvpn\bin\openvpn-gui" --connect "egypt-UDP4-1194-spring2020_student-config.ovpn"
echo "VPN Connection should be ready"
```

2:46 PM
3/31/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

OpenVPN GUI

openvpn

Application Tools

File Home Share View Manage

This PC ▸ Local Disk (C:) ▸ openvpn

Search openvpn

Favorites
Desktop
Downloads
Recent places

Name	Date modified	Type	Size
openvpn_autostart.bat	9/1/2020 2:55 PM	Windows Batch File	1 KB

This PC

1 item 1 item sel

Open
Open file location
Run as administrator
Troubleshoot compatibility
Pin to Start
Pin to Taskbar
Send to
Cut
Copy
Create shortcut
Delete
Rename
Properties

The presentation right clicks on the "Openvpn Gui" icon. The presentation selects "Open file location".

openvpn_autostart.bat - Notepad

atically-on-computer-startup/
-windows-10/
ls/67503-task-create-run-program-startup-log.html

ot-UDP4-1194-fall2020-student-config.ovpn"

2:56 PM
9/1/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

bin

Application Tools

File Home Share View Manage

This PC ▸ Local Disk (C:) ▸ Program Files ▸ OpenVPN ▸ bin

This is the path to the "openvpn-gui" program.

Favorites
Desktop
Downloads
Recent places

This PC
Desktop
Documents
Downloads

Name	Date modified		
libcrypto-1_1-x64.dll	2/21/2019 2:42 PM		
liblzo2-2.dll	2/21/2019 2:42 PM		
libpkcs11-helper-1.dll	2/21/2019 2:42 PM		
libssl-1_1-x64.dll	2/21/2019 2:42 PM	Application extens...	650 KB
openssl	2/21/2019 2:42 PM	Application	1,179 KB
openvpn	2/21/2019 2:42 PM	Application	1,030 KB
openvpn-gui	2/21/2019 2:42 PM	Application	682 KB
openvpnserv	2/21/2019 2:42 PM	Application	73 KB

openvpn_autostart - Notepad

File Edit Format View Help

```
REM This is the OpenVPN Autostart batch file
REM https://www.ovpn.com/en/blog/windows-run-openvpn-automatically-on-computer-startup/
REM https://www.smarthomebeginner.com/auto-connect-to-openvpn-windows-10/
REM Task Scheduler setup: https://www.sevenforums.com/tutorials/67503-task-create-run-program-startup-log.html
REM Preuss 3/30/2020


echo "Starting VPN"
"c:\program files\openvpn\bin\openvpn-gui"                                    on"
echo "VPN Connection should be ready"
```

The text in blue comes from the information in the above window. This information must be in quotes because of the spaces in the folder names.

2:46 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

config

File Home Share View

Navigation pane | Preview pane | Details pane | Panes

Extra large icons | Large icons | Medium icons | Small icons | List | Details | Layout

Sort by | Current view

Item check boxes | File name extensions | Hidden items | Show/hide

Downloads
Recent places

This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
DVD Drive (D:) IR5_C

Network

egypt-UDP4-1194-spring2020_student-c...	12/23/2019 12:56 ...	OpenVPN Config ...
egypt-UDP4-1194-spring2020_student-tls...	12/23/2019 12:56 ...	KEY File
README.txt	3/31/2020 2:39 PM	Text Document

4 items

The presentation enables showning file name extension. This is a good idea.

File Edit Form

```
REM This is
REM https:/
REM https:/
REM Task Sc
REM Preuss


echo "Start
"c:\program
echo "VPN C
```

2:46 PM
3/31/2020

win81-csec2204 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

OpenVPN GUI

config

File Home Share View

This PC ▸ Local Disk (C:) ▸ Program Files ▸ OpenVPN ▸ config

Search config

Favorites
Desktop
Downloads
Recent places

This PC

Network

Name	Date modified	Type	Size
egypt-UDP4-1194-fall2020-student.p12	5/7/2020 10:58 AM	Personal Informati...	6 KB
egypt-UDP4-1194-fall2020-student-config.ovpn	5/7/2020 10:58 AM	OpenVPN Config ...	1 KB
egypt-UDP4-1194-fall2020-student-tls.key	5/7/2020 10:58 AM	KEY File	1 KB
README.txt	9/1/2020 2:50 PM	Text Document	1 KB

4 items

openvpn_autostart.bat - Notepad

File Edit Format View Help

```
REM This is the OpenVPN AutoStart batch file
REM https://www.openvpn.com/en/blog/Windows-run-openvpn-automatically-on-computer-startup/
REM https://www.smarthomebeginner.com/auto-connect-to-openvpn-windows-10/
REM Task Scheduler setup: https://www.sevenforums.com/tutorials/67503-task-create-run-program-startup-log.html
REM Preuss 9/1/2020

echo "Starting VPN"
"c:\program files\openvpn\bin\openvpn-gui" --connect "egypt-UDP4-1194-fall2020-student-config.ovpn"
```

The text in blue is the current semester openvpn configuration file. The current plan calls for this file to change every semester. It is important to use the current semester configuration file in the batch file.

2:57 PM
9/1/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Start

preuss

Sleep

Shut down

Restart

The presentation selects "Restart" to continue the installation.

Mail

Internet Explorer

Calendar

Help+Tips

OneDrive

Store

Photos

OneNote

Weather

Health & Fitness

Food & Drink

People

Skype

Maps

Reading List

Desktop

Hospitals firing workers who speak out about lack of gear

▼ DOW
▼ FTSE 100
▼ NIKKEI 225

Money

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The presentation log on as full administrator.

2:47 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Start

The presentation launches "Task Scheduler".

Search

Everywhere

task sch

Schedule tasks

Mail

DOW ▼ 26,047.80 -0.71
FTSE 100 ▼ 7,359.15 -39.30
NIKKEI 225 ▼ 21,129.72 -74.56
Money

The NCAA basketball tourney is cancelled. ESPN's Joe...

Weather

Hospitals firing workers who speak out about lack of gear

Store

People

Skype

Health & Fitness

Desktop

Internet Explorer

Maps

Calendar

Help+Tips

OneDrive

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
View
Refresh
Help

The presentation right clicks on "Task Scheduler Library" and selects "New Folder ..."

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author
	Ready	When computer is idle		Never		Microsoft Corpo
	Ready	When computer is idle		3/31/2020 12:08:59 PM	The operation completed successfully. (0x0)	Microsoft Corpo

4691694-1001

Location:
Author:
Descripti

It is enabled only when the cache files are not optimally

Security options

When running the task, use the following user account:

tpreuss

Run only when user is logged on

Run whether user is logged on or not

Do not store password. The task will only have access to local resources

Actions

Task Scheduler Library

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
View
Refresh
Help

Selected Item

Run
End
Disable
Export...
Properties
Delete
Help

Create a task from the selected task file.

2:48 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author
Optimize Sta...	Ready	When computer is idle		Never		Microsoft Corpo
Optimize Sta...	Ready	When computer is idle		3/31/2020 12:08:59 PM	The operation completed successfully. (0x0)	Microsoft Corpo

General Triggers Actions Conditions Settings

Name: Optimize Start Menu Cache Files-S-1

Location: \

Author: Microsoft Corporation

Description: This idle task reorganizes th... not optimally organized.

Security options

When running the task, use the following

tpreuss

Run only when user is logged on

Run whether user is logged on or not

Do not store password. The task

Enter name of the new folder

Name

openvpn

OK Cancel

Actions

Task Scheduler Library

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
View
Refresh
Help

Selected Item

Run
End
Disable
Export...
Properties
Delete
Help

The presentation creates a new folder named "openvpn". The presentation selects "OK" to continue.

2:48 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Created

The presentation selects "Create Task ..." to continue.

Actions

openvpn

- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks
- Enable All Tasks History
- New Folder...
- Delete Folder
- View
- Refresh
- Help

2:49 PM
3/31/2020

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Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status

Create Task

General Triggers Actions Conditions Settings

Name: openvpn_autostart

Location: \openvpn

Author: win81-10\tpreuss

Description: This will launch openvpn and connect to the M State mait vpn at startup.

Security options

When running the task, use the following user account:

win81-10\tpreuss Change User or Group...

Run only when user is logged on

Run whether user is logged on or not

Do not store password. The task will only have access to local computer resources.

Run with highest privileges

Hidden Configure for: Windows 8.1

OK Cancel

Actions

openvpn

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

Under the "General" tab, the presentation configures the screen as shown. The presentation selects "Triggers" tab to continue.

2:50 PM
3/31/2020

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Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status

Create Task

General Triggers Actions Conditions Settings

When you create a task, you can specify the conditions that will trigger the task.

Trigger	Details	Status

New... Edit... Delete

OK Cancel

Actions

openvpn

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

The presentation selects "New" to continue on the "Tiggers" tab.

2:50 PM
3/31/2020

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Player

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Create
openv						MAIT-81\tpreuss	3/31/2

openvpn_autostart Properties (Local Computer)

General | Trigge

When you crea

Trigger
At startup

New...

General

Name:

Locatior

Author:

Descript

Securit

When

MAIT-

Ru

Run whether user is logg

Do r

Edit Trigger

Begin the task: At startup

Settings

No additional settings required.

Advanced settings

Delay task for: 30 seconds

Repeat task every: 1 hour for a duration of: 1 day

Stop all running tasks at end of repetition duration

Stop task if it runs longer than: 3 days

Activate: 3/31/2020 8:14:20 PM Synchronize across time zones

Expire: 3/31/2021 8:14:20 PM Synchronize across time zones

Enabled

OK Cancel

Actions

openvpn

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Disable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

Selected Item

Run
End
Disable
Export...
Properties
Delete
Help

The presentation configures "At startup" trigger as shown. The presentation selects "OK" to continue.

Under this configuration, you must wait at least 30 seconds after booting the virtual machine before the vpn connection is made.

8:14 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status

Create Task

General Triggers Actions Conditions Settings

When you create a task, you can specify the conditions that will trigger the task.

Trigger	Details	Status
At startup	At system startup	Enabled

New... Edit... Delete

OK Cancel

Actions

openvpn

- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks
- Enable All Tasks History
- New Folder...
- Delete Folder
- View
- Refresh
- Help

The presentation selects the "Actions" tab to continue.

2:51 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status

Create Task

General Triggers Actions Conditions Settings

When you create a task, you must specify the action that will occur when your task starts.

Action	Details

New... Edit... Delete

OK Cancel

Actions

openvpn

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

The presentation selects "New" to continue.

2:51 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Create
openv						MAIT-81\tpreuss	3/31/2

openvpn_autostart Properties (Local Computer)

General Triggers Actions

When you create a task, yo

Action	Det
Start a program	C:\

General
Name:
Locatior
Author:
Descript

Edit Action

You must specify what action this task will perform.

Action: Start a program

Settings

Program/script: C:\openvpn\openvpn_autostart.bat Browse...

Add arguments (optional):

Start in (optional):

OK Cancel

Actions

openvpn

- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks
- Disable All Tasks History
- New Folder...
- Delete Folder
- View
- Refresh
- Help

Selected Item

- Run
- End
- Disable
- Export...
- Properties
- Delete
- Help

The presentation uses the "Browse" button to select the batch file created earlier. The presentation selects "OK" to continue.

8:14 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status

Create Task

General Triggers Actions Conditions Settings

When you create a task, you must specify the action that will occur when your task starts.

Action	Details
Start a program	C:\openvpn\openvpn_autostart.bat

New... Edit... Delete

OK Cancel

Actions

openvpn

Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

The presentation selects the "Conditions" tab to continue.

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3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Create
openv						MAIT-81\tpreuss	3/31/2

openvpn_autostart Properties (Local Computer)

General | Triggers | Actions | Conditions | Settings | History

Specify the conditions that, along with the trigger, determine whether the task should run. The task will not run if any condition specified here is not true.

Idle
- Start the task only if the computer is idle for: 10 minutes
  - Wait for idle for: 1 hour
  - Stop if the computer ceases to be idle
  - Restart if the idle state resumes

Power
- Start the task only if the computer is on AC power
  - Stop if the computer switches to battery power
- Wake the computer to run this task

Network
- Start only if the following network connection is available: Any connection

OK Cancel

General
Name:
Location:
Author:
Description:

Actions
openvpn
- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks
- Disable All Tasks History
- New Folder...
- Delete Folder
- View
- Refresh
- Help

Selected Item
- Run
- End
- Disable
- Export...
- Properties
- Delete
- Help

The presentation sets the "Conditions" tab as shown. The presentation selects "Settings" tab to continue.

8:14 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Create
openv						MAIT-81\tpreuss	3/31/2

openvpn_autostart Properties (Local Computer)

General | Triggers | Actions | Conditions | Settings | History

Specify additional settings that affect the behavior of the task.

- [x] Allow task to be run on demand
- [ ] Run task as soon as possible after a scheduled start is missed
- [ ] If the task fails, restart every: 1 minute
  - Attempt to restart up to: 3 times
- [x] Stop the task if it runs longer than: 3 days
- [x] If the running task does not end when requested, force it to stop
- [ ] If the task is not scheduled to run again, delete it after: 30 days

If the task is already running, then the following rule applies:

Do not start a new instance

OK Cancel

General
Name:
Location:
Author:
Description:
Security:

Actions

openvpn

- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks
- Disable All Tasks History
- New Folder...
- Delete Folder
- View
- Refresh
- Help

Selected Item

- Run
- End
- Disable
- Export...
- Properties
- Delete
- Help

The presentation configures the "Settings" tab as shown. The presentation selects "OK" to continue.

8:15 PM
3/31/2020

mait01 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

Microsoft Edge

OpenVPN GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name Status Triggers Next Run Time Last Run Time Last Run Result Author Created

Actions
openvpn
Create Basic Task...
Create Task...
Import Task...
Display All Running Tasks
Enable All Tasks History
New Folder...
Delete Folder
View
Refresh
Help

Create Task

General Triggers Actions Conditions Settings

Specify additional settings that affect the behavior of the task.

Allow task to be run on demand

Run task as soon as possible after a scheduled start is missed

If the task fails,

Attempt to rest

Stop the task if

If the running ta

If the task is not

If the task is already

Do not start a new i

30 days

OK Cancel

Task Scheduler

Enter user account information for running this task.

User name: ESKTOP-SR1JEHC\tpreuss

Password:

OK Cancel

The presentation provides the administrator password to finish the Task Scheduler configuration.

Type here to search

8:54 AM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle B

OpenVP GUI

Task Scheduler

File Action View Help

Task Scheduler (Local)
Task Scheduler Library
Microsoft
openvpn

Name	Status	Triggers	Next Run Time	Last Run Time	Last Run Result	Author	Create
openvpn_au...	Running	At system startup		3/31/2020 8:12:57 PM	The task is currently running. (0x41301)	MAIT-81\tpreuss	3/31/2

Actions

openvpn

- Create Basic Task...
- Create Task...
- Import Task...
- Display All Running Tasks

The presentation enables "All Tasks History" to help with troubleshooting. The presentation closes the Task Scheduler.

8:15 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System

Control Panel ▸ System and Security ▸ System

Search Control Panel

Control Panel Home

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

View basic information about your computer

Windows edition

Windows 8.1 Pro

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Get more features with a new edition of Windows

Windows 8

System

Processor:	Intel(R) Core(TM) i5-9400H CPU @ 2.50GHz 2.50 GHz
Installed memory (RAM):	4.00 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:	win81-10
Full computer name:	win81-10
Computer description:	
Workgroup:	WORKGROUP

Change settings

Windows activation

Windows is activated Read the Microsoft Software License Term

Product ID: 00260-00748-34617-AA732

See also

Action Center

Windows Update

The presentation selects "Change settings" link.

2:54 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

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: win81-10

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...

OK Cancel

The presentation selects "Change" button.

2:55 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:

mait-81

Full computer name:

mait-81

More...

Member of

Domain:

Workgroup:

WORKGROUP

OK

Cancel

OK

Cancel

Apply

The presentation changes the virtual machine name to meet the requirements of the lab assignment.

Once the name is changed, the presentation selects "OK" to continue.

2:55 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:

mait-81

Full computer name:

mait-81

Member of

Domain:

Workgroup:

WORKGROUP

OK

OK

Computer Name/Domain Changes

You must restart your computer to apply these changes

Before restarting, save any open files and close all programs.

OK

The presentation selects "OK" to apply the changes and reboot.

The presentation selects "OK" on all remaing open windows.

2:55 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

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: mait-81

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...

Changes will take effect after you restart this computer.

Close Cancel Apply

The presentation selects "Close" to continue.

2:55 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Microsoft Windows

You must restart your computer to apply these changes

Before restarting, save any open files and close all programs.

Restart Now | Restart Later

The presentation selects "Restart Now" to continue.

The virtual machine will reboot.

2:56 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

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: mait-81

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...

OK Cancel Apply

The presentation returns to "System Properties" to join the domain "mait.minnesota.edu". The presentation selects "Change" to continue.

2:57 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:

mait-81

Full computer name:

mait-81

More...

Member of

Domain:

mait.minnesota.edu

Workgroup:

WORKGROUP

OK Cancel

OK Cancel

The presentation selects "Domain" and enters "mait.minnesota.edu" in the Domain box. The presentation selects "OK" to continue.

2:57 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

Windows Security

Computer Name/Domain Changes

Enter the name and password of an account with permission to join the domain.

preuss@mait.minnesota.edu

Password

Domain: mait.minnesota.edu

OK Cancel

The presentation enters the UPN of an OU administrator. The presentation provides the password and selects "OK" to continue.

2:57 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:

mait-81

Full computer name:

mait-81

More...

Member of

Domain:

mait.minnesota.edu

Workgroup:

WORKGROUP

OK Cancel

OK Cancel

Computer Name/Domain Changes

Welcome to the mait.minnesota.edu domain.

OK

The presentation selects "OK" to continue.

2:58 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:
mait-81

Full computer name:
mait-81

More...

Member of

Domain:
mait.minnesota.edu

Workgroup:
WORKGROUP

OK Cancel

OK Cancel Apply

Computer Name/Domain Changes

You must restart your computer to apply these changes

Before restarting, save any open files and close all programs.

OK

The presentation selects "OK" to continue. The presentation selects "OK" to any remaining open windows.

2:58 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

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: mait-81.mait.minnesota.edu

Domain: mait.minnesota.edu

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...

Changes will take effect after you restart this computer.

Close Cancel Apply

The presentation selects "Close" button.

2:58 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Microsoft Windows

You must restart your computer to apply these changes

Before restarting, save any open files and close all programs.

Restart Now | Restart Later

The presentation selects "Restart Now" to continue.

2:58 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Other user

preuss@mait.minnesota.edu

Password

Sign in to: mait.minnesota.edu

How do I sign in to another domain?

The presentation enters the UPN and password of a member of the "people" group on the domain.

Remember to wait at least 60 seconds to allow the start up program to run.

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

Command Prompt

```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\preusszenon>cd documents

C:\Users\preusszenon\Documents>ping chile.mait.minnesota.edu

Pinging chile.mait.minnesota.edu [2607:f930:1200:ac00::ec28] with 32 bytes of da
ta:
Reply from 2607:f930:1200:ac00::ec28: time=30ms
Reply from 2607:f930:1200:ac00::ec28: time=32ms
Reply from 2607:f930:1200:ac00::ec28: time=31ms
Reply from 2607:f930:1200:ac00::ec28: time=31ms

Ping statistics for 2607:f930:1200:ac00::ec28:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 30ms, Maximum = 32ms, Average = 31ms

C:\Users\preusszenon\Documents>
```

This will take some time to setup the account on the virtual machine. Once the log on is complete, the presentation tests the vpn connection. The connection is good.

8:16 PM
3/31/2020

win81-10 - VMware Workstation 15 Player (Non-commercial use only)

Player

Recycle Bin

OpenVPN GUI

The presentation verifies on the local virtual machine that it is a member computer of the domain "mait.minnesota.edu" as shown.

System

Search Control Panel

ur computer

s reserved.

Windows

Windows 8

e(TM) i5-9400H CPU @ 2.50GHz 2.50 GHz

rating System, x64-based processor

Pen and Touch: Ne or Touch Input is available for this Display

Computer name, domain, and workgroup settings

Computer name: mait-81

Change settings

Full computer name: mait-81.mait.minnesota.edu

Computer description:

Domain: mait.minnesota.edu

Windows activation

Windows is activated Read the Microsoft Software License Terms

Product ID: 00260-00748-34617-AA732

Change product key

See also

Action Center

Windows Update

8:17 PM

3/31/2020