Imaging A Rush Computer: (Desktop or Laptop)

Version November 2025
Compiler: Luis Arauz

Contents

Imaging Guide Audio Overview:

Listen Now: Imaging Rush Computer - PC Desktop Laptop Aug 2025.docx.mp3

Introduction

In the hospital, computers are used everywhere—from checking patient charts to running equipment to handling admin work. To make sure they work the way they're supposed to and meet hospital standards, we use a process called imaging. Imaging sets up the computer with the correct software, settings, and updates so it's ready for use in our environment.

This guide is here to walk you through the imaging process, step by step. It's written with techs in mind—whether you're new to the job or just need a refresher. The goal is to keep things consistent, avoid mistakes, and make sure each machine is set up right the first time. When we do that, hospital staff can stay focused on patient care, not tech issues.

Preparation Check

Device Prep

- **Confirm with the department** – Make sure it's the right time to take the device offline, especially in clinical areas.
- **Check the asset tag/hostname** – Make sure the machine matches ticket or work order.
- **Look over the hardware** – Check for damage, missing parts, or anything that might cause issues during imaging.
- **Plug in the device** – Always image with the machine connected to power and ethernet.
- **Network ready** – Plug in ethernet cable connected to working network port.
- **Model check** – Know the hardware you're working with. Some models need different drivers or images.

Know What You're Imaging

- **Get the naming convention** – Make sure you have the right hostname.
- **What is the purpose of this device?** – Make sure you know what the computer will be used for. This will help you select the correct image you need.
- **Know what Active Directory Organizational Unit (OU) the computer needs to be in**
- **Know what applications need to be installed on the computer**
- **Know what Active Directory Memberships need to be added to the computer and user**

Taking a few minutes to go through this checklist helps avoid repeat trips and keeps our imaging process smooth and professional.

Pre-Imaging Tasks

- Backup any needed files (if applicable)
- Confirm the device is assigned correctly in RAM asset tracking
- Check BIOS/UEFI settings (boot order, secure boot, Power on After AC loss etc.)
- Decide how you will reimage the computer.
    - USB boot stick with the most current RUSH configuration manager. ***Note: if you don't have a USB drive with the latest Rush SCCM online boot image go to the Create Online PC Imaging USB Drive Section***
    - Online in place image with SCCM

Image Computer – New Hostname

Note if you are Reimaging a computer and will reuse the hostname, go to Reimage Computer – Reuse Hostname section and complete those steps then come back here

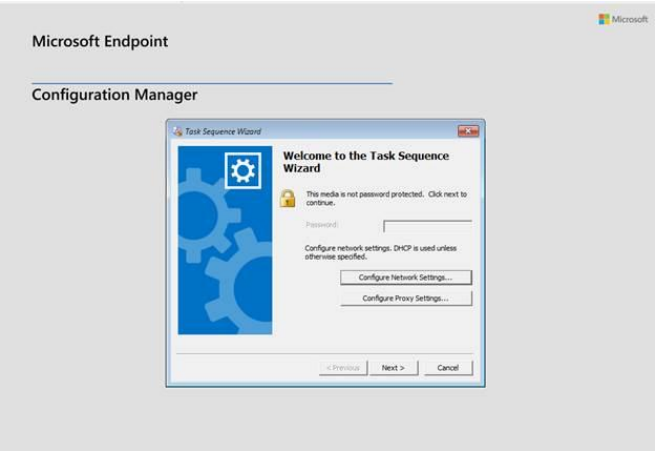
Load Online PC Imaging USB Drive

Note: if you don't have a USB drive with the latest Rush SCCM online boot image go to the Create Online PC Imaging USB Drive Section

Plug the Online PC Imaging USB Drive into the computer's USB port and boot up the computer.

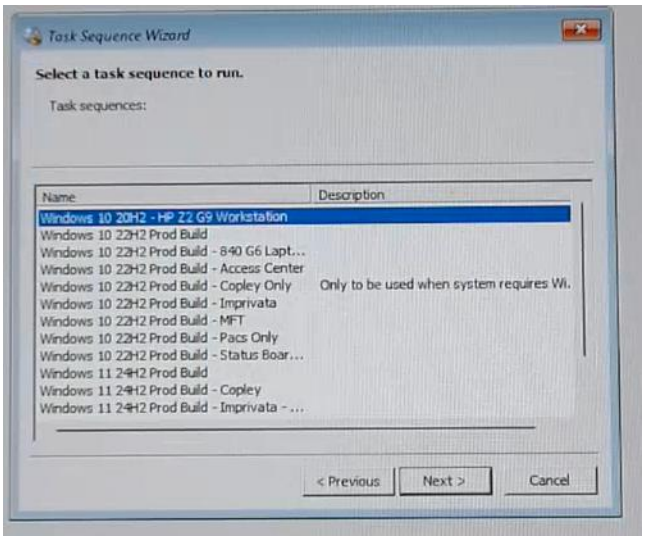
On HP computers Press F9 on the keyboard repeatedly till the quick boot menu is displayed.

Select the USB drive to boot from

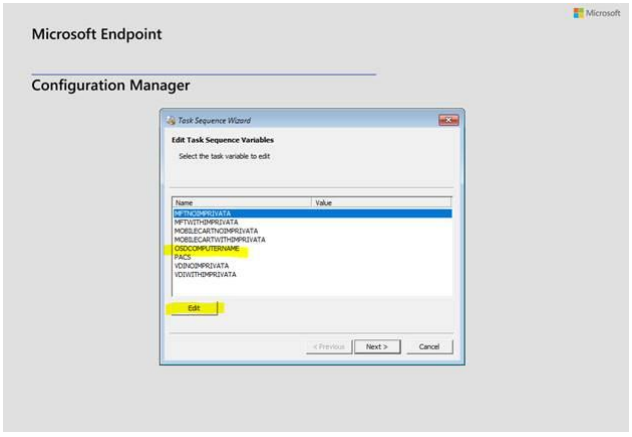


You can select the required image from the boot stick. The three most used by Field Service are:

1. Windows 11 24H2 Prod Build
2. Windows 11 24H2 Prod Build - Imprivata
3. Windows 11 24H2 Prod Build – MFT



	Normal Image	MFT Image	Imprivata Image
	For Regular PC Laptops	Operating Rooms Procedure Rooms Downtime PC Statusboard Public/Guest Terminals	Exam rooms, Clinics, Ambulatory Sites, Mobile Cart, in-patient Alcoves, Multiuser login stations with full windows profile (ie. nursing stations)
Image to select	Windows 11 24H2 Prod Build	Windows 11 24H2 Prod Build – MFT	Windows 11 24H2 Prod Build - Imprivata
	Base Image installed on computer delivered by PACE		AMBWarp – exam rooms Warp – Full profile badge login Type 1.5 – Autologin account user badge unlock
Auto Login	NO	YES	YES
C:\temp scripts		Configure Downtime Configure MFT Configure Statusboard - Epic	Configure Imprivata – AMBWarp Configure Imprivata – Warp Configure Imprivata – Type 1.5



Next select on OSDCOMPUTERNAME and Click on edit and click next

Hostname Naming Convention

Note: If this is a new computer <u>and</u> you don't know what the hostname should be, find follow these steps to select the proper hostname. Otherwise jump to Naming the Computer.

Rush computer hostnames are based on the building name where it will be used and type of device it is.

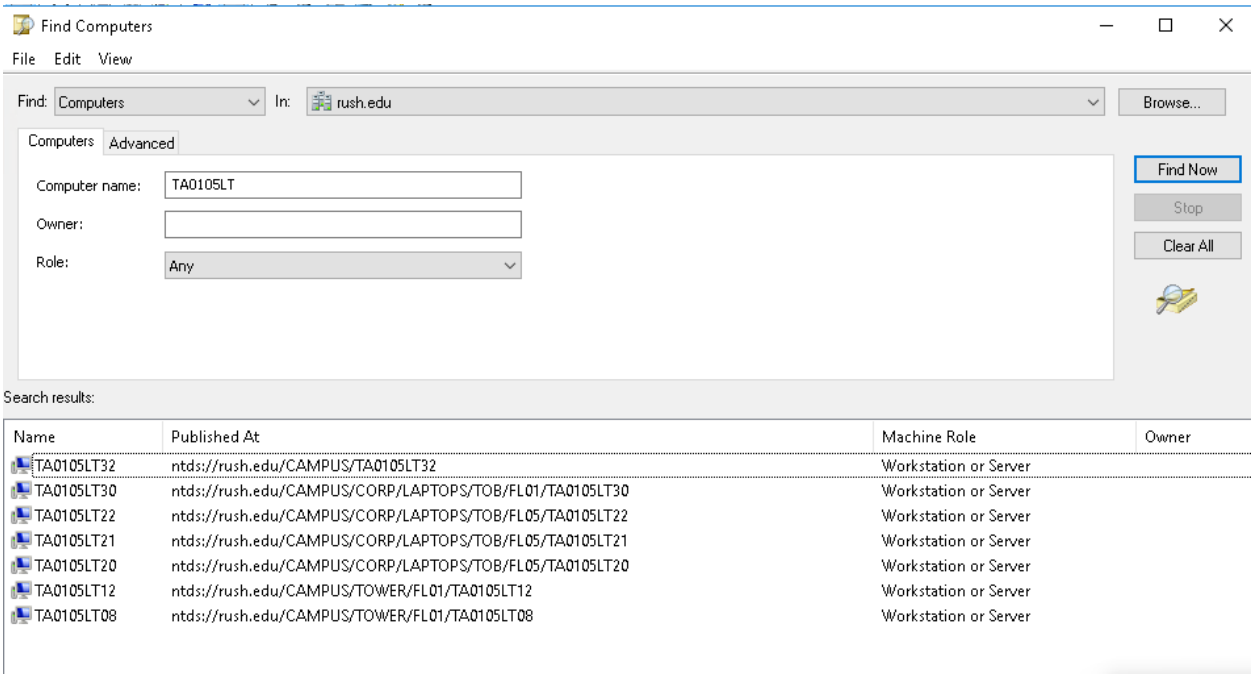
Example Hostname: TB374LT020

TB = Building Name (ex: This device will be deployed in the Triangle Office Building (TOB))
374 = Room Number
LT = Device Type (ex. This is a laptop)
020 = Sequential Device Number (ex. This is the 20th Laptop that is in room 374 in the TOB)

Computer Naming Chart

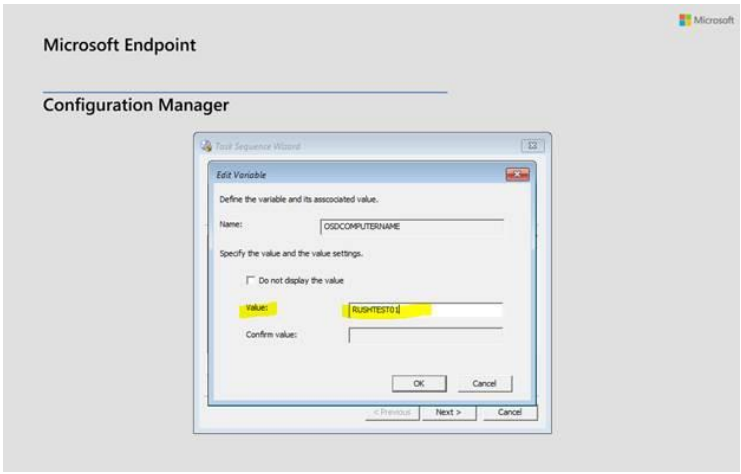
Example: TB0374LT20				
	Building name	Room number	Device Type	Sequential Number
	TB	0374	LT	20
TOB	TB		Laptop: LT	
Tower	TW		Desktop: PC	
Atrium	AT		MFT: TC	
Kellogg	KP		Mobile cart: MC	
PRO 1	1P		Downtime: DT	
PRO 2	2P		Printer: PRT	
PRO 3	3P		MAC: MAC	
JRB	JB			
Pavilion	PA			
RAB	RB			
OAB	OB			
AFAC	AF			
Work From Home	WFH			

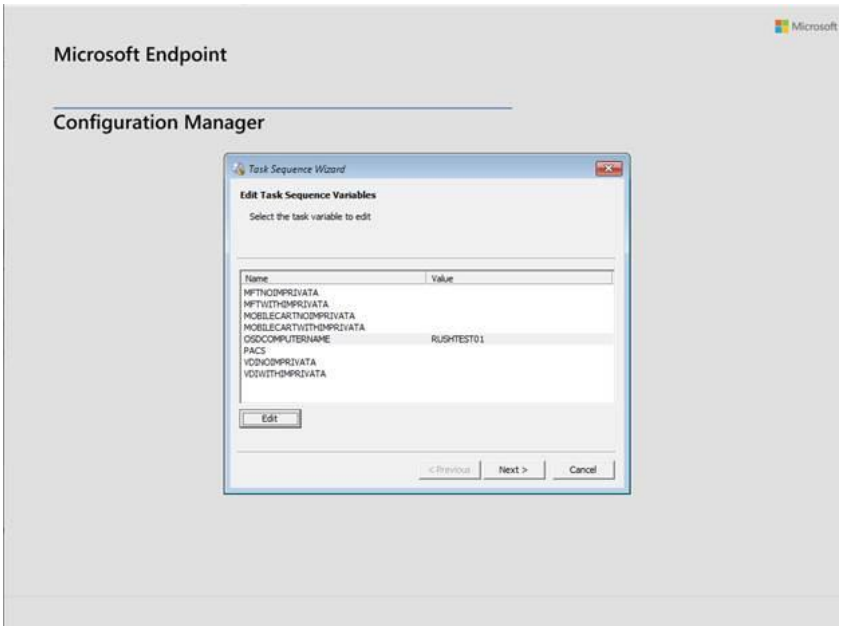
Alternatively, search for a similar computer name in the area and look up the hostname (without its sequential number) in Active Directory. This will show all computers with related hostnames, allowing you to use the root name and the next available number.



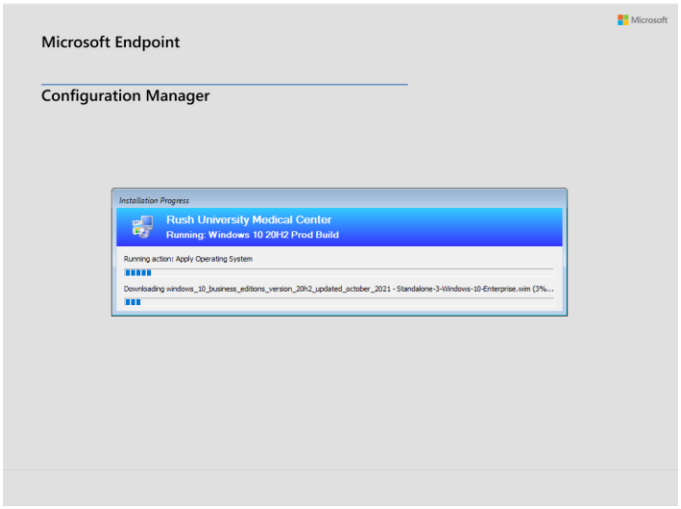
Name the Computer

Once you have figured out the correct host name, type the computer's hostname and click **OK**, then click **Next**





Click next. The imaging process will begin



At this point you can remove the USB Boot drive and start imaging another computer if needed.

The rebuilding will take 45-50 min to finish. Do not unplug network cable or power cable. The computer will restart automatically.

The base image installation is completed when you see the Rush Background like the screenshot below.

NOTE:

- When using the Normal Prod Build image, the computer will be automatically joined to the domain, you will need to manually Add the Computer to the Correct OU
- When using the MFT or Imprivata Images the computer will NOT be automatically joined to the domain. You will need to use the following instructions
    - MFT Configuration Instructions
    - Imprivata Configuration Instructions

Normal Image Configuration instructions

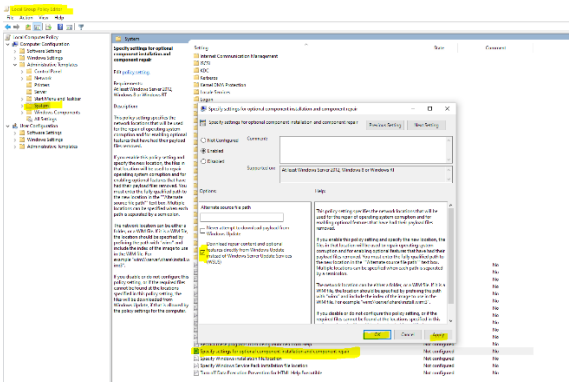
Login with ENT account and start updating windows within 5 minutes after PC boots onto the network because after 5 minutes a Windows security profile will be pushed to the computer which will lock out manual updates

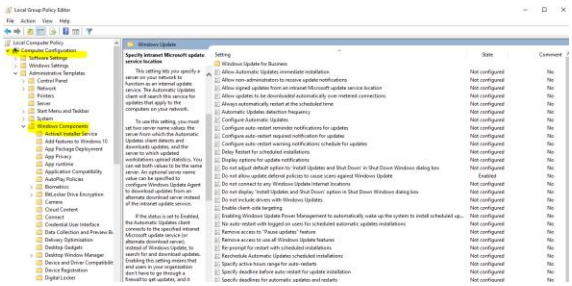
Unlock Computer to Install Windows, BIOS and Driver Updates

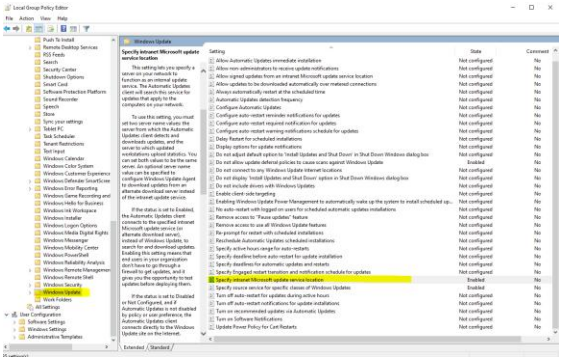
When the computer is joined to the domain, windows updates are managed by the DOMAIN. If you get any errors about windows updates. You need to edit the Local Group policies to temporarily restore windows updates. Open local GPO Editor (gpedit.msc from start menu) and navigate to:

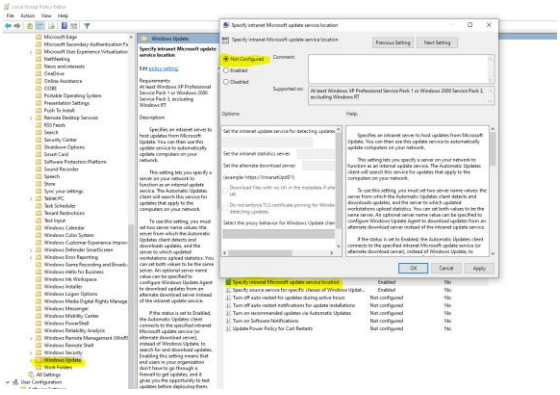
1. Administrative Templates -> System -> Specify settings for optional component installation and component repair.
    a. Default State: **Not Configured** -> Change to: **Enabled**

2. Administrative Templates -> Windows Components -> Windows Update -> Manage updates offered from Windows Server Update Service -> Specify intranet Microsoft update service location.
    a. Default State: **Enabled** -> Change to: **Not Configured**

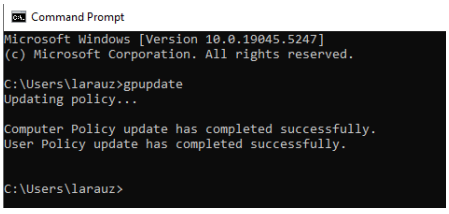








Open the Command line and type ***gpupdate /force***



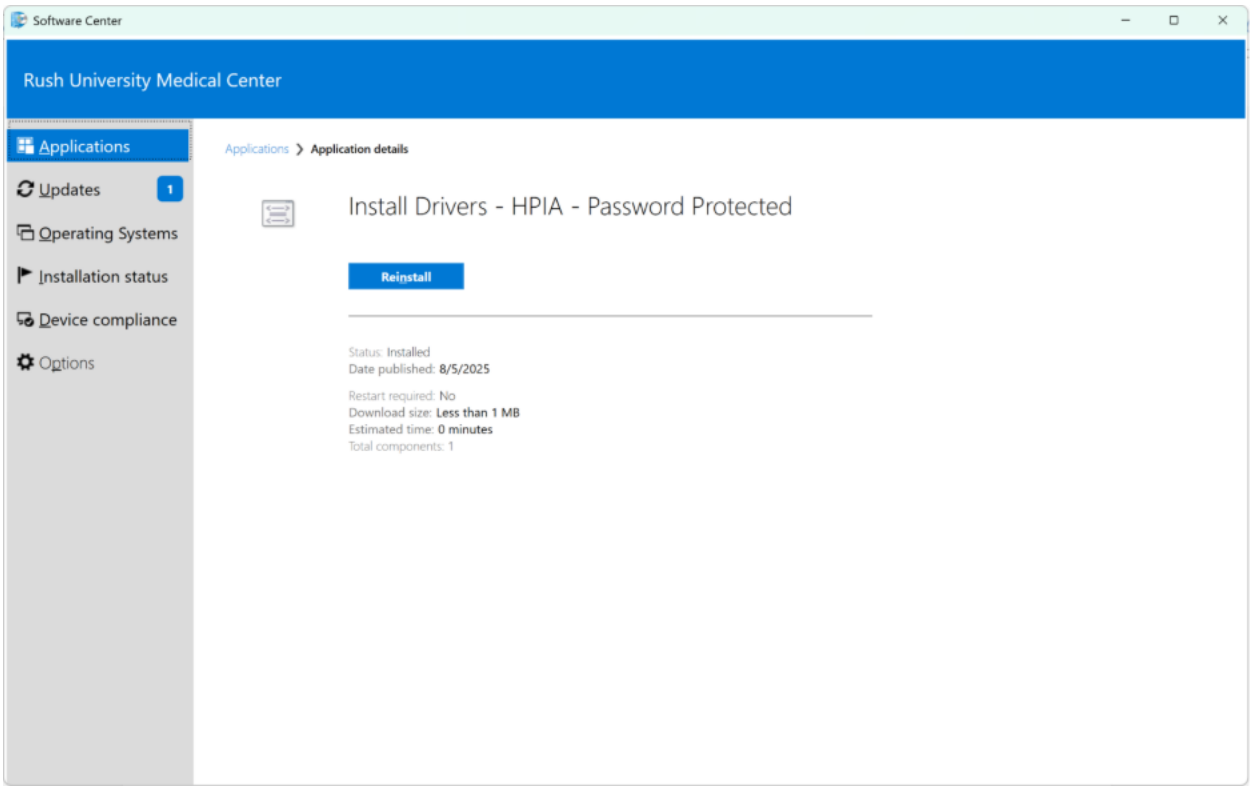
Now try to do the windows update. Might take 2-3 “Check for update” attempts before it starts.

Ensure HP Drivers are up to date (NOT AVAILABLE ON REIMAGED MACHINES)

Online SCCM enables HP driver update

To update HP device drivers via software center, complete the following:

1. Open Software center from the start menu or the search bar.
2. Navigate to the Applications section.
3. Ensure AC power is connected to device.
4. Click install (Reinstall if previously executed) on the “Install Drivers – HPIA – Password Protected” application.



5. Enter rush\ent account and password to initiate driver update. (Ex: rush\entmiles). Task sequence will fail if incorrect ENT password is entered.
6. Drivers will install, and machine will reboot. Bios updates will install after machine is rebooted.

***Please ensure device is connected to AC power, or the task sequence will fail.

*** Task sequence is only available on HP devices.

Manual HP Driver update if SCCM online version is not available

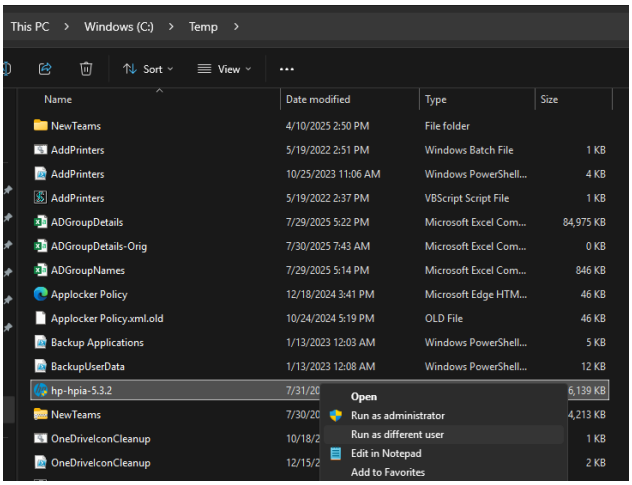
Download the latest version of HP Image Assistant (HPIA)

- Site: https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html

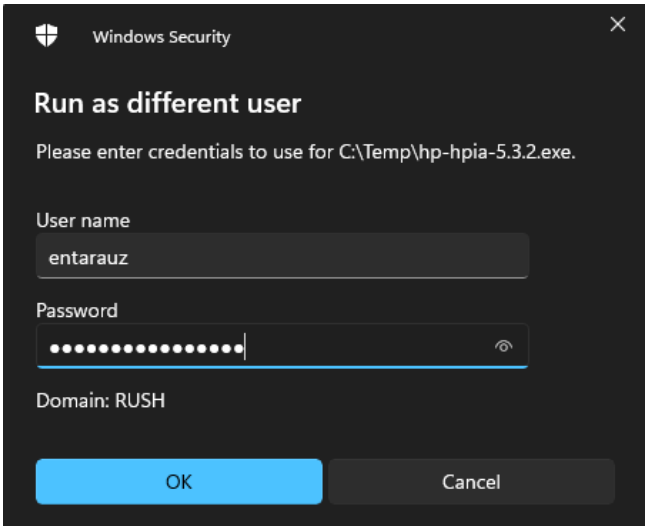
- Official Guide: [HP Image Assistant User Guide]

Place HPIA executable into the C:\Temp folder.

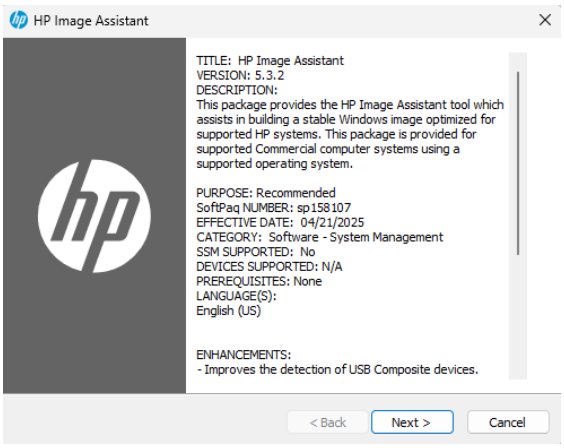
Hold down the shift key, right click on the HPIA executable and select **Run as different user**

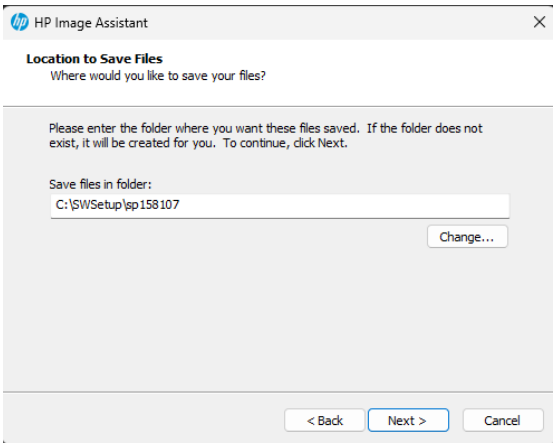


Enter your ent credentials

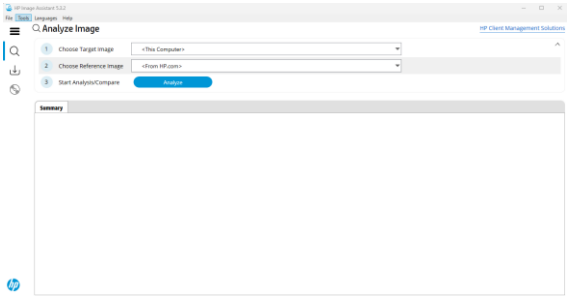


Proceed through the installation process.

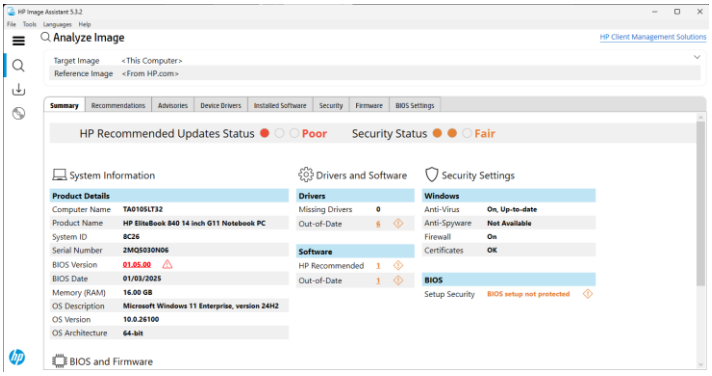




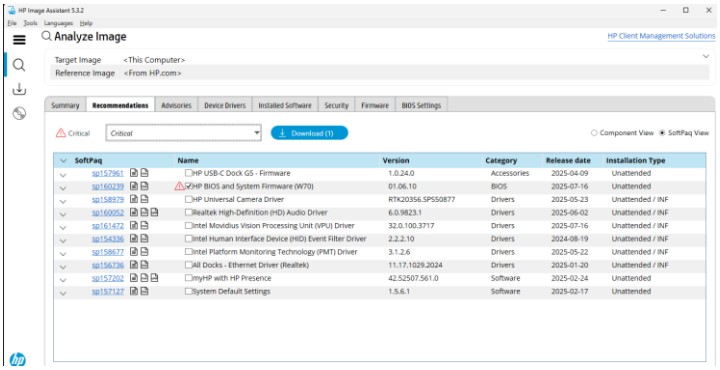
When done the application will open press the blue Analyze button to begin scanning the computer



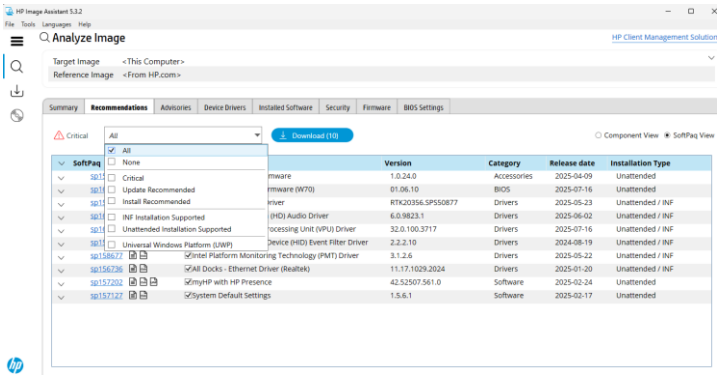
When the analysis is complete. You will get a report on the results.



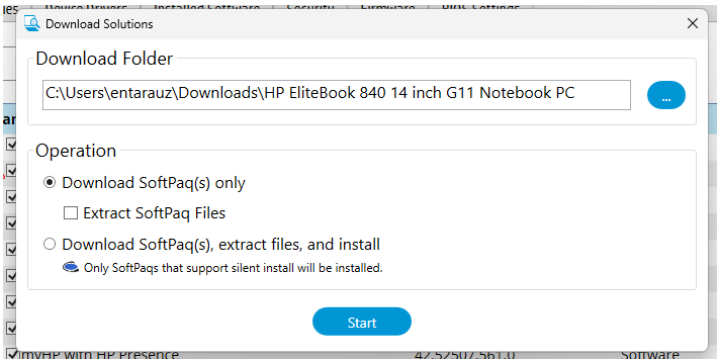
Switch to the Recommendations Tab



Select ALL from the pull-down menu and click the Download button

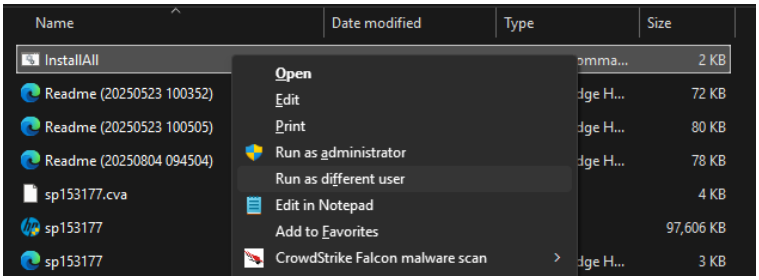


Take note Download Folder location, you will need it in the next steps. Make sure the Download SoftPaq(s) only option is selected and then click the Start Button. (The built-in installer has been known to fail and not install all the drivers. So we will be using an included install script.

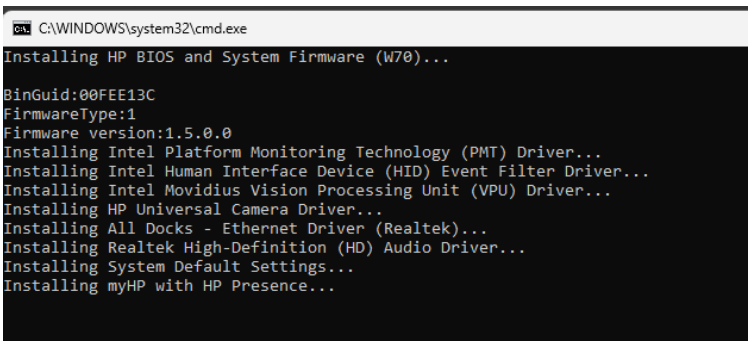


Once the download are completed. Open the folder where the files were downloaded to.

Right click on **InstallAll** and Click **Run as administrator**



A terminal screen will open and begin the installation process for all the downloads. It will take some time (depending on the number of updates) and there will be multiple requests for permission to continue the installation for each driver update.

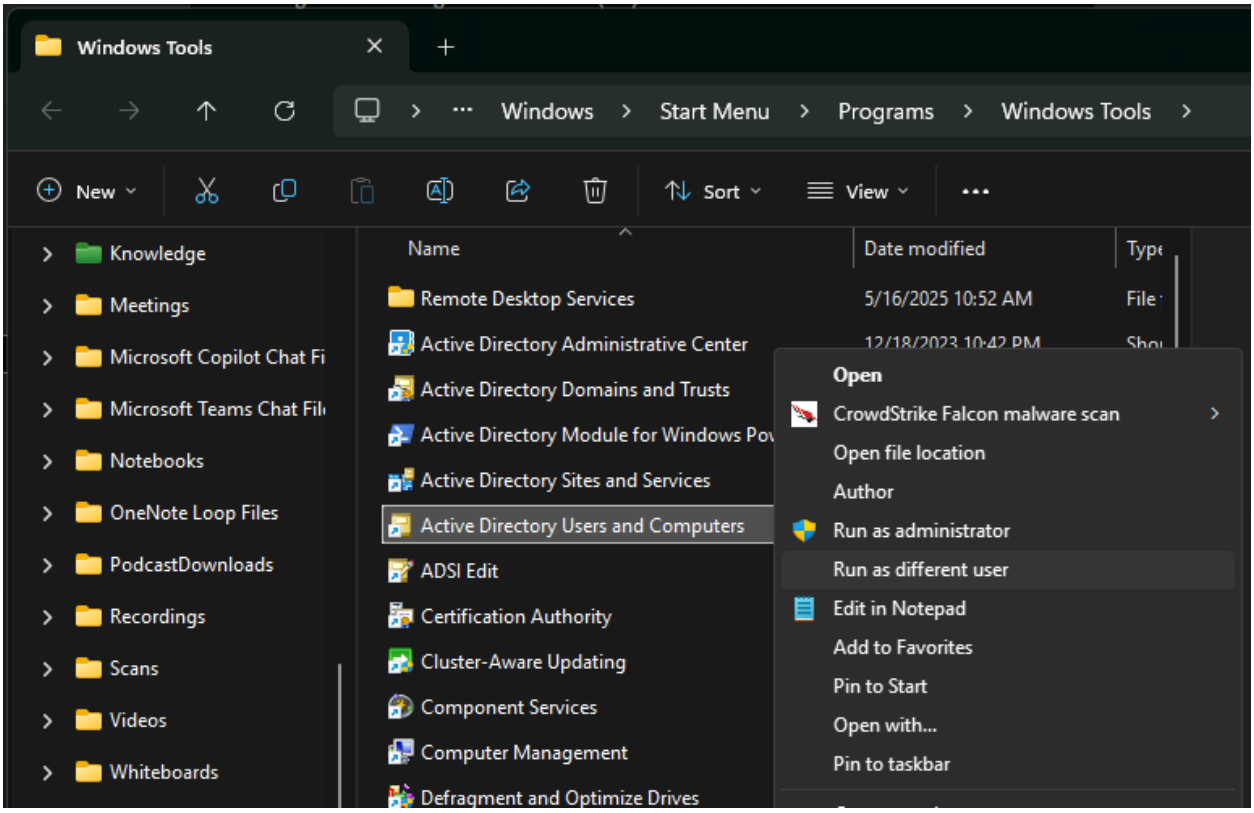


Adding the Computer to the Correct OU

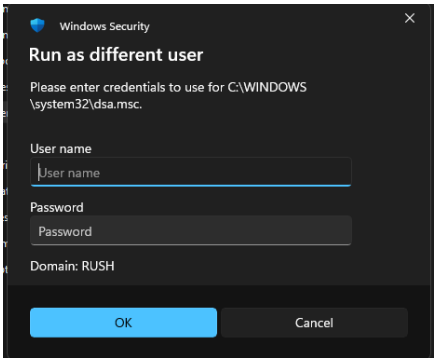
Open Active Directory as your ENT account.

Using File Explorer go to C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Administrative Tools

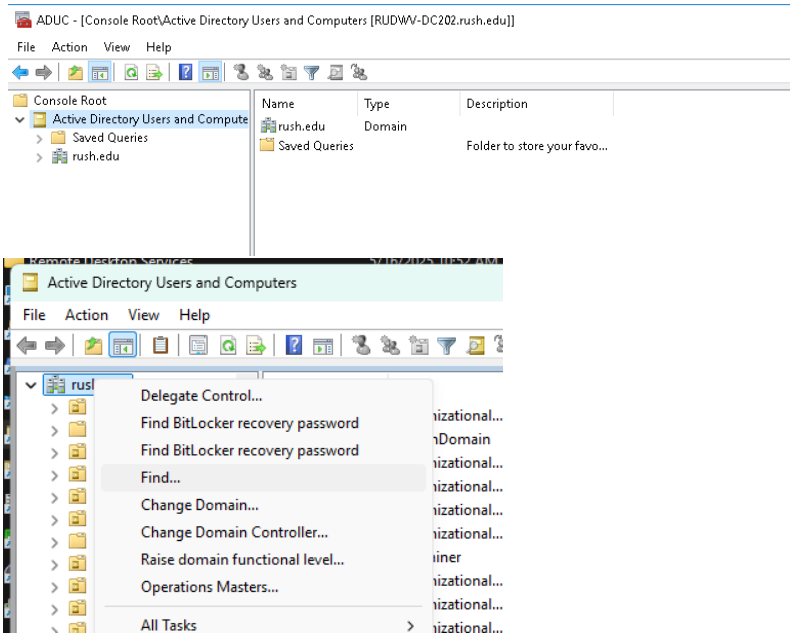
On your keyboard press and hold the shift button and Right-click on ***Active Directory Users and Computers*** then select ***Run as a different user***



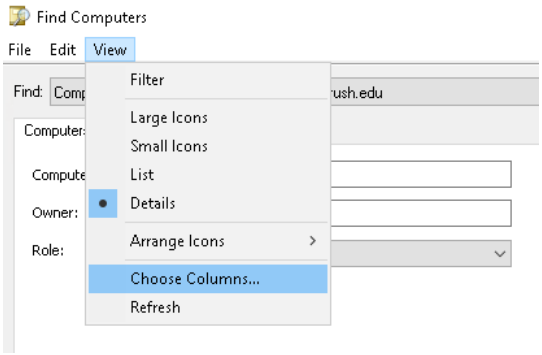
Enter your ENT login credentials



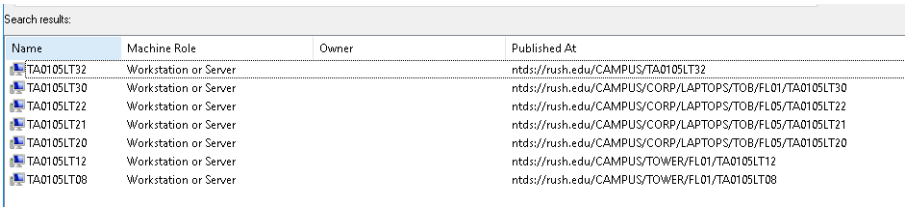
Either click on the **Action** menu and select **Find...** OR right click on **rush.edu** and select **Find...**



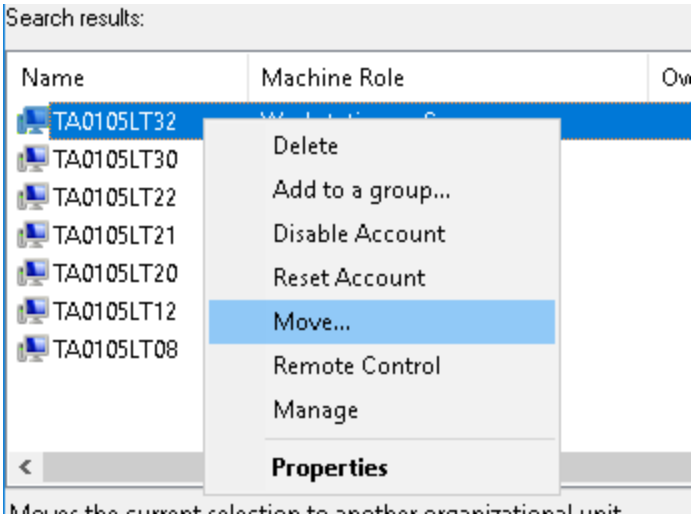
You might need to enable a new column in the Find window. Click on the **View** menu and select **Choose Columns...**



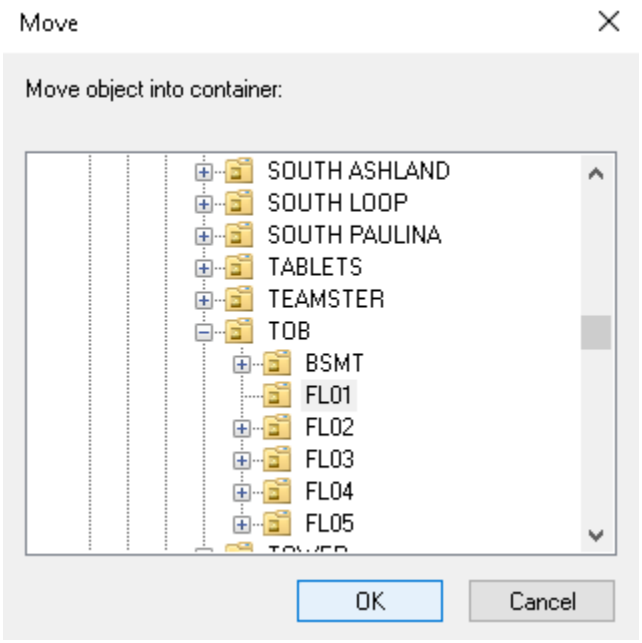
Select **Published At**, click on the **ADD >>** button and click **OK**. This column will show you the current Organizational Unit (OU) a computer is part of.

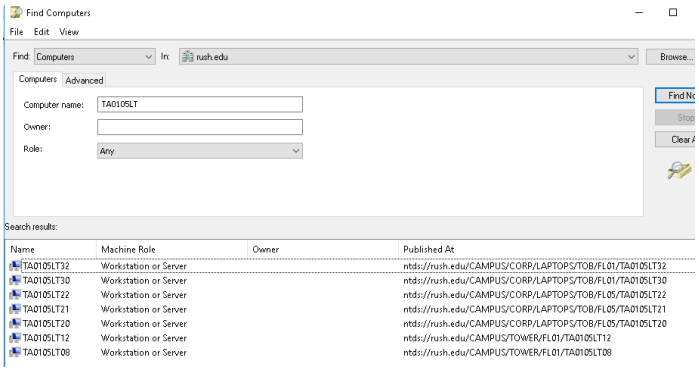


If you need to move the computer to a different group. Right click on the hostname and select **Move...**



From here you can navigate the different submenus to the correct Organizational Unit and when you are at the correct one press OK to move the computer to that OU. And then click Find Now to refresh the screen





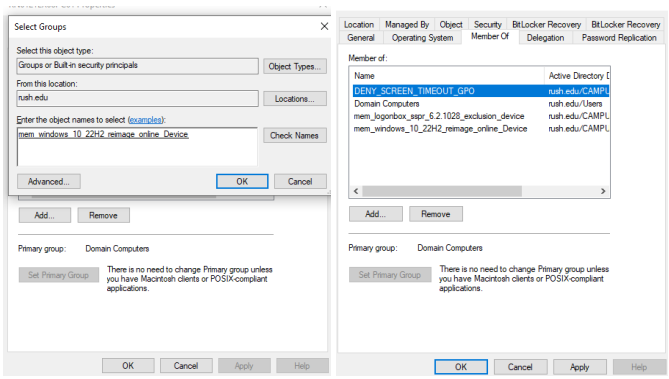
Run **gpupdate /force** from the computers terminal CMD to apply the new OU profile to the computer.

Reimage Computer – Online SCCM

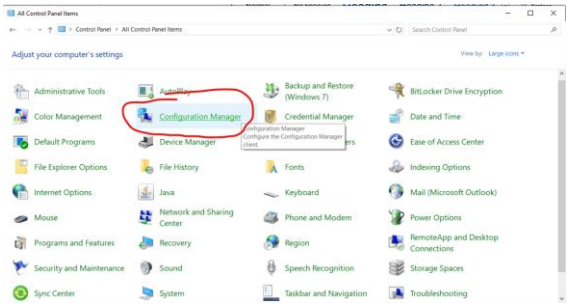
WARNING: At the time of this writing the online SCCM upgrade is available for WINDOWS 10 Only

If there is a computer that needs to be reimaged with windows10 and there is no issue/change with the hardware itself, the online SCCM upgrade is an available option.

Search for the Computer hostname is Active Directory and add it a member of **mem_windows_10_22H2_reimage_online_Device** group.

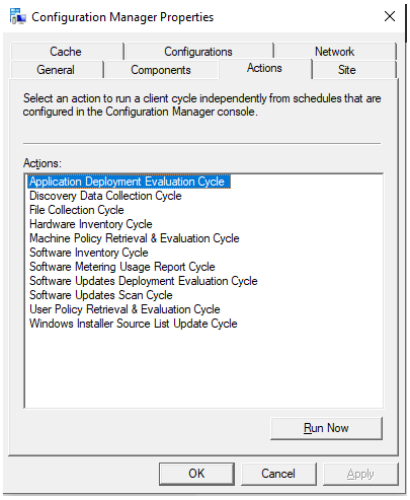


Login to the computer to be reimaged and launch the Configuration Manager in the control panel.

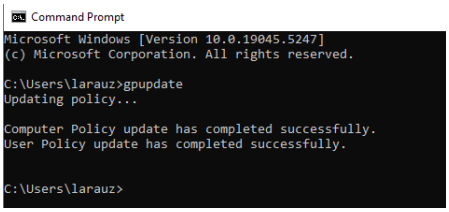


Run all the ACTIONS from Configuration manager. Select one action and press the Run Now button. You will need to repeat these steps for each Action. Run the Machine Policy Retrieval if adding the PC to an AD group

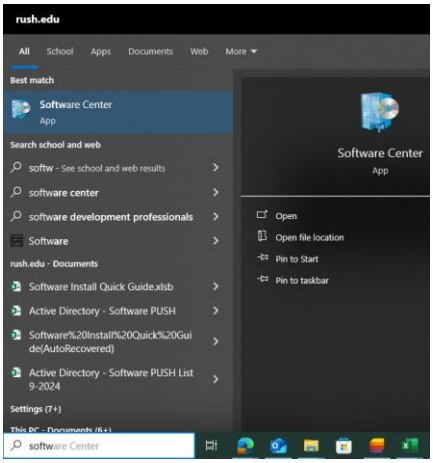
run the User pol



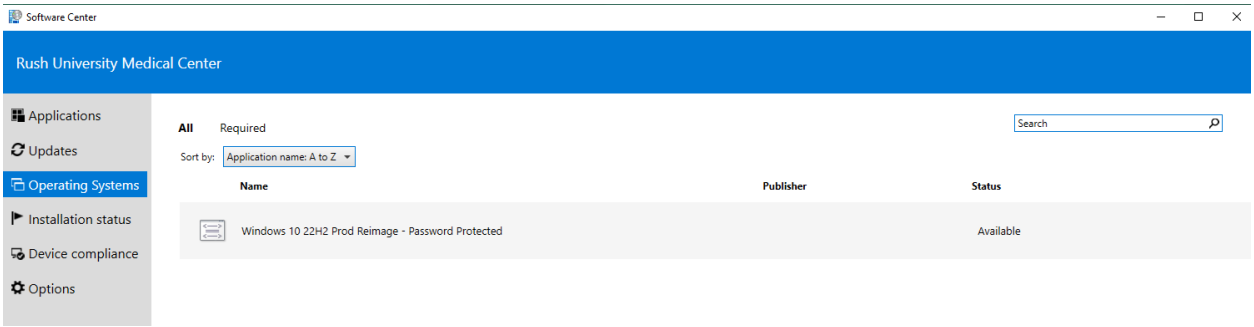
Next open the Windows Command Prompt, type ***gpupdate*** and press enter.



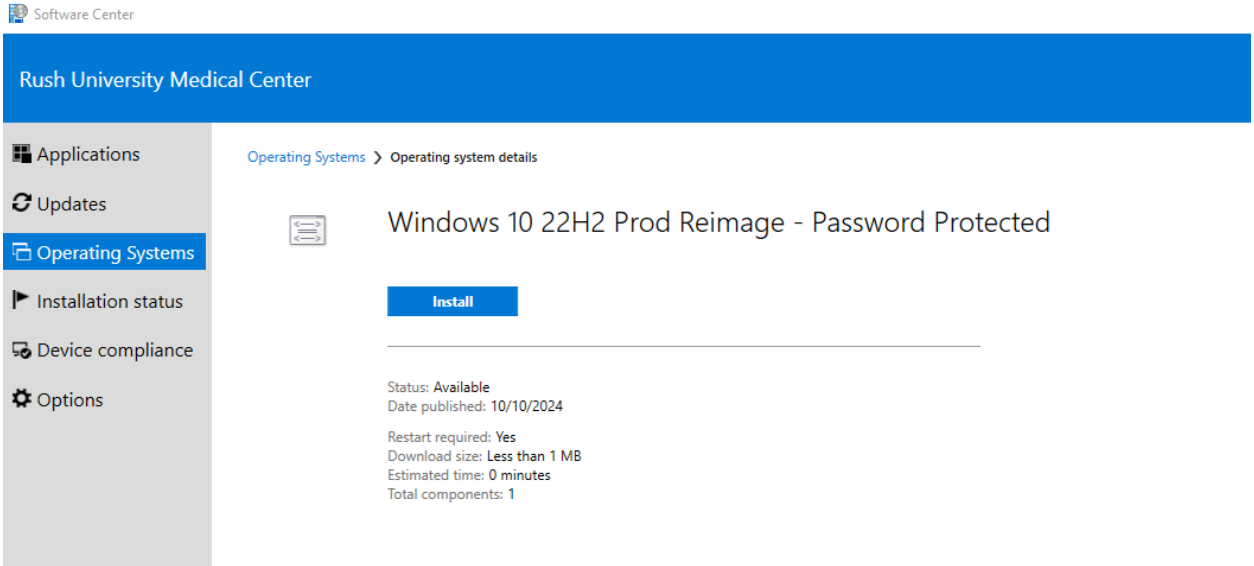
Launch Software Center



Click on ***Operating Systems*** and click on ***Windows 10 22H2 Prod Reimage – Password Protected reimaging*** option



Click on ***Install*** to being the reimaging process

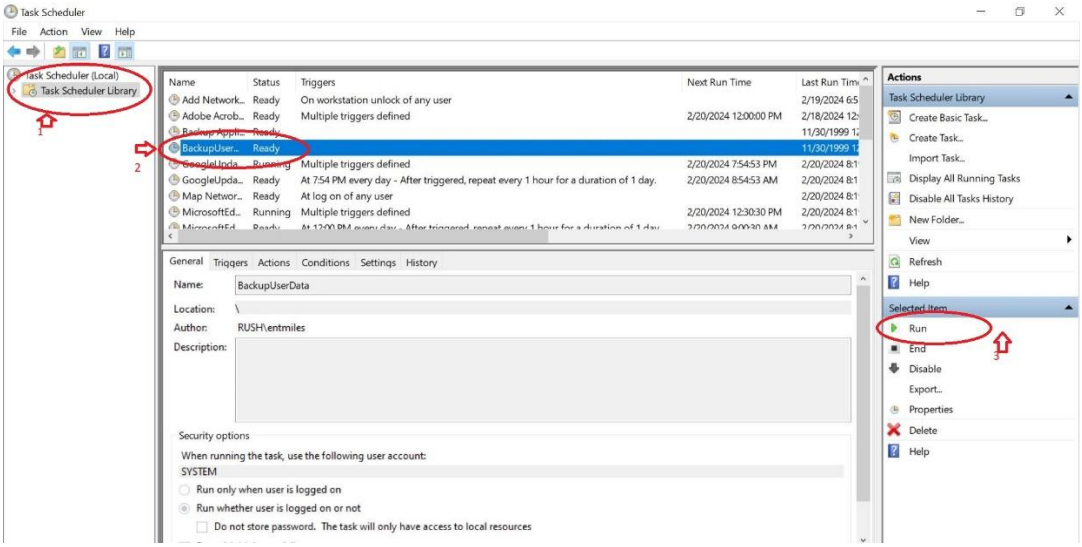


Reimage Computer – USB Boot stick/Reuse Hostname

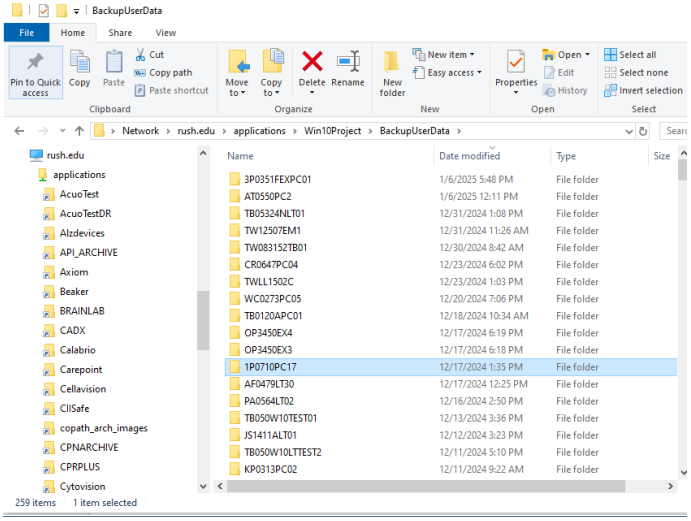
IMPORTANT: The .\install account must always be available on the computer.
If the install account doesn't populate, Make sure the laptop is in proper OU in Active Directory.

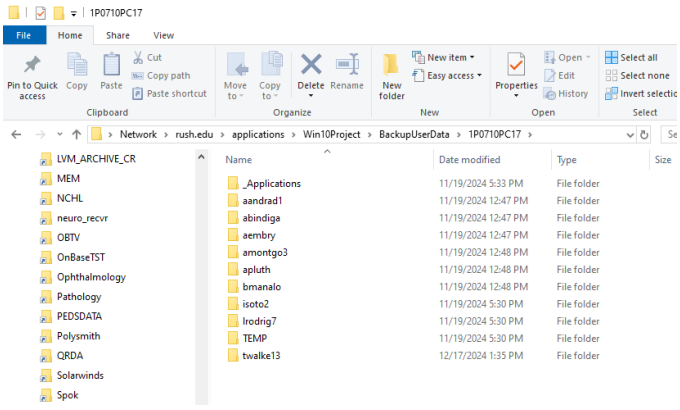
Backup User Data

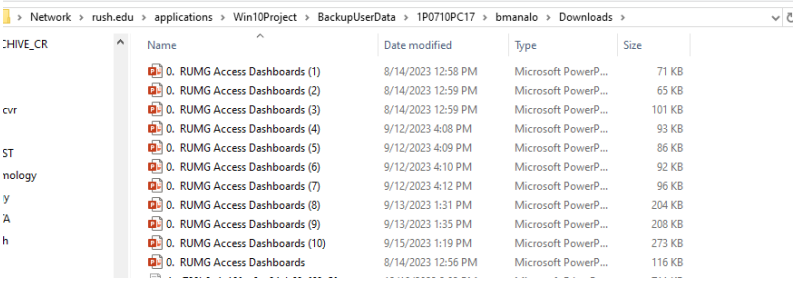
Login to the computer and search for Open Task Scheduler in start menu and with ENT User



When the Backup task is complete, check the Backup folder and make sure you see a folder with the Computer name and the username is available. Also be sure the users data is in the folder.
\\rush.edu\applications\Win10Project\BackupUserData



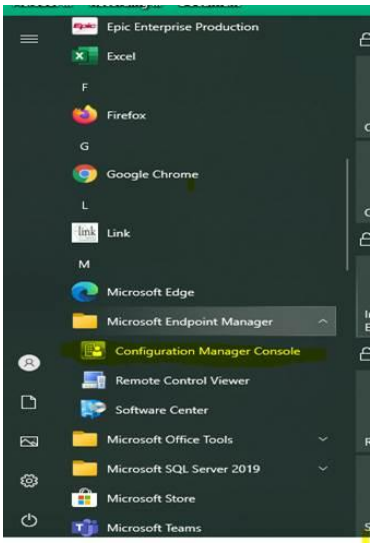




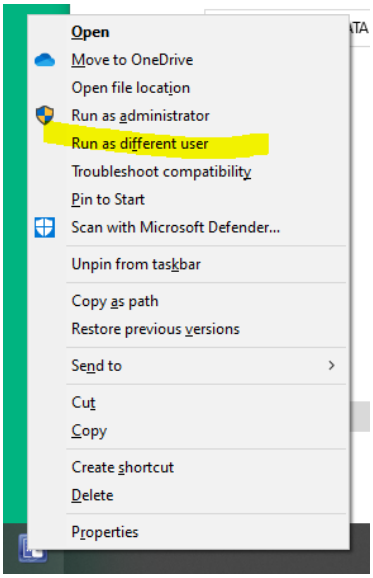
Delete Hostname from SCCM

Note: if you don't have the Microsoft Endpoint Configuration Manager already installed, follow the instructions in the next section to learn how to Install SCCM Admin Console, then come back here.

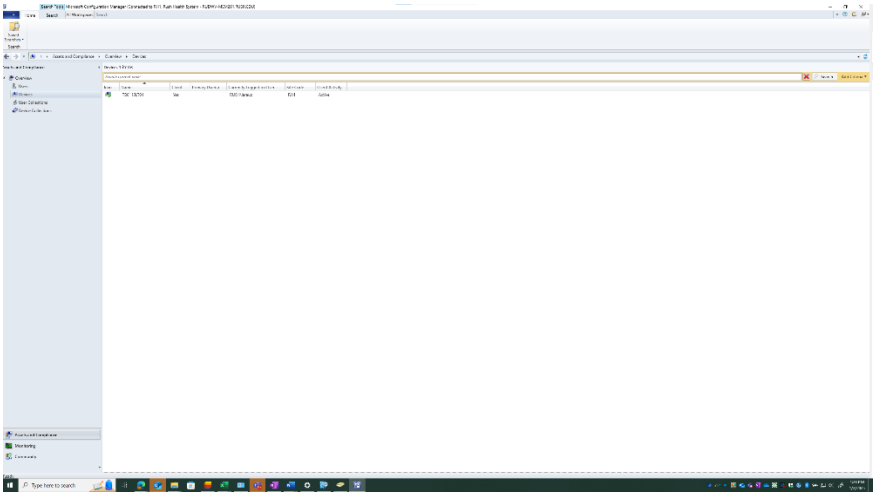
Go to the Start Menu and Find Configuration Manger Console (optional: right click to Pin it to Start menu)



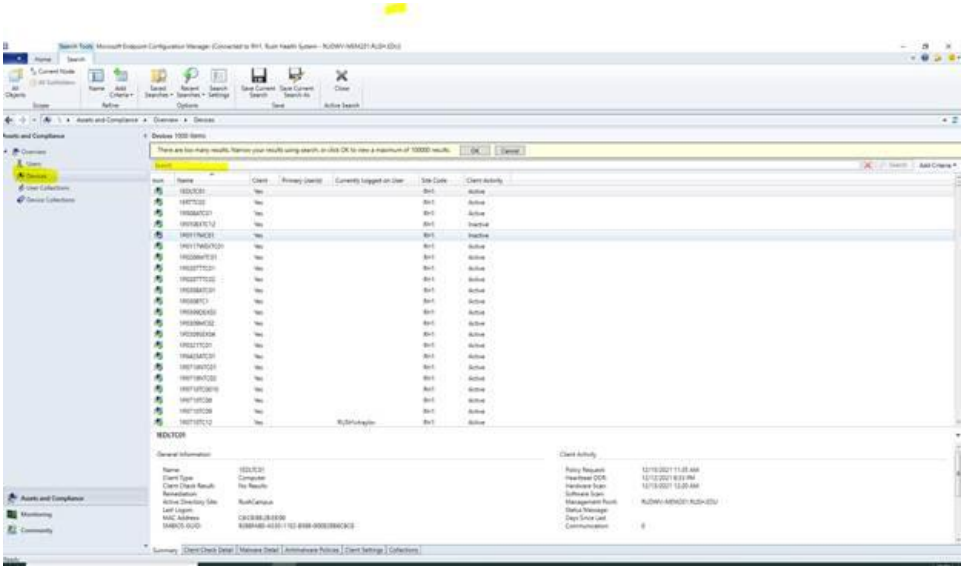
Shift + Right click on **Configuration Manager Console**, select **Run as different user** and login as ENT account



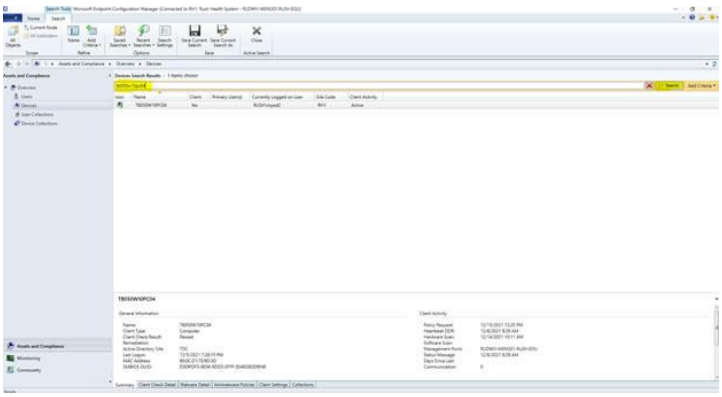
The Microsoft Configuration Manager window will open up



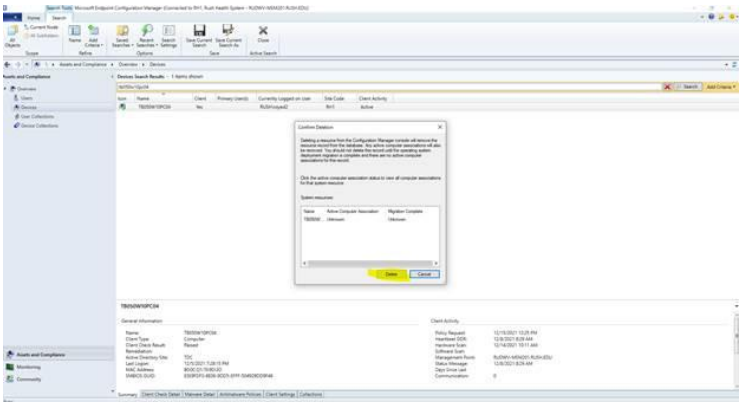
Search for the computer host name and then delete it, so you can reimage and reuse the computers name



Go to Devices and search for hostname to re-image



Right Click on the hostname and click delate

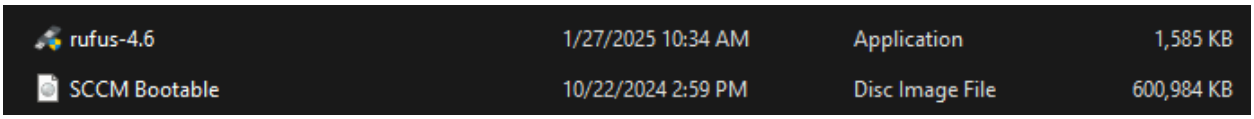


Create Online PC Imaging USB Drive

Install Rufus using your ENT account

\\rush.edu\data\IS\Infosvcs\FLDTECH\New_Hire_Folder\Useful_Software\SCCM

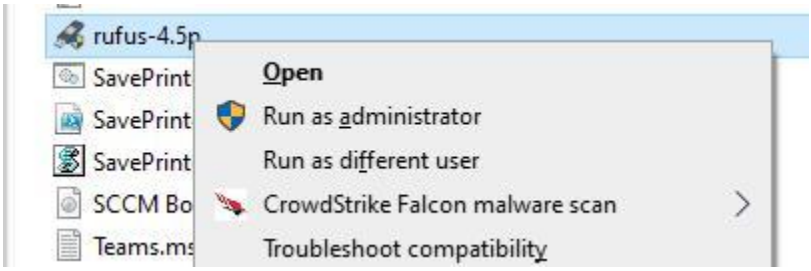
As of this writing the SCCM Bootable modified/created on 10/22/2024 is the recommended boot image to use. In the same folder you will find a version of Rufus. This program is able to create bootable USB flash drive from the SCCM Bootable disc image file (.iso)



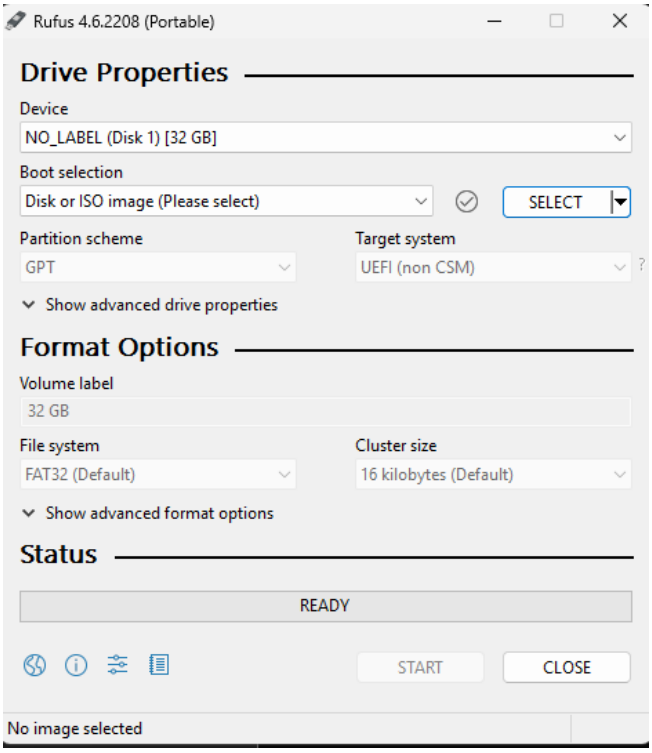
You can find the latest version here. https://rufus.ie/downloads

Make sure to plug in a USB flash drive into your computer.

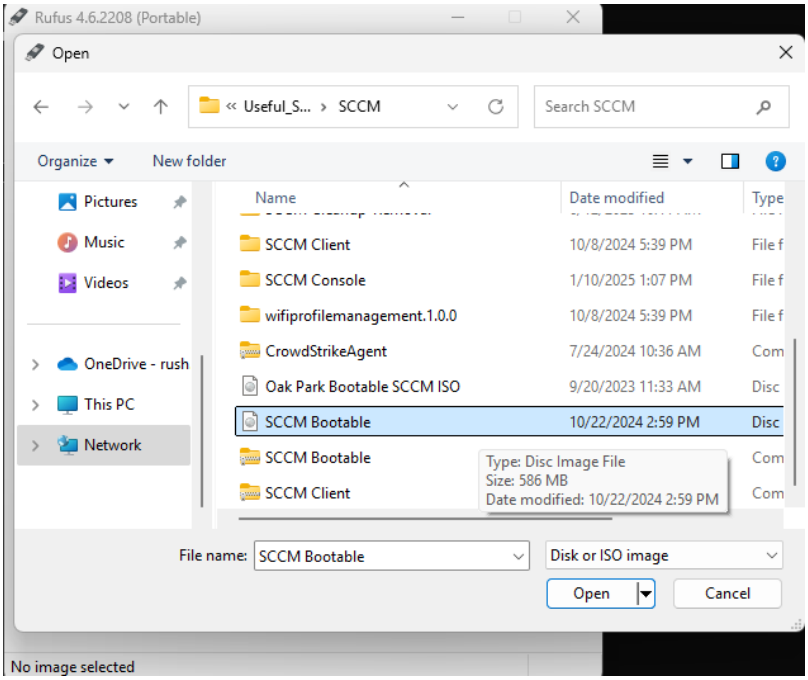
Shift + Right click on rufus and install/start with **Run as different user**



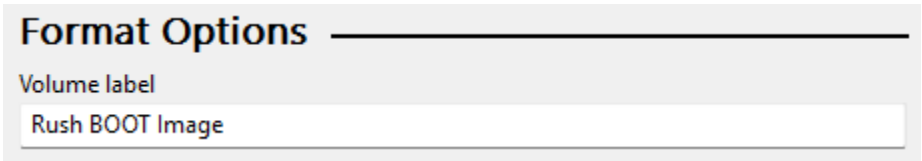
Once the program is loaded, the USB drive will show up in the Device selection menu.



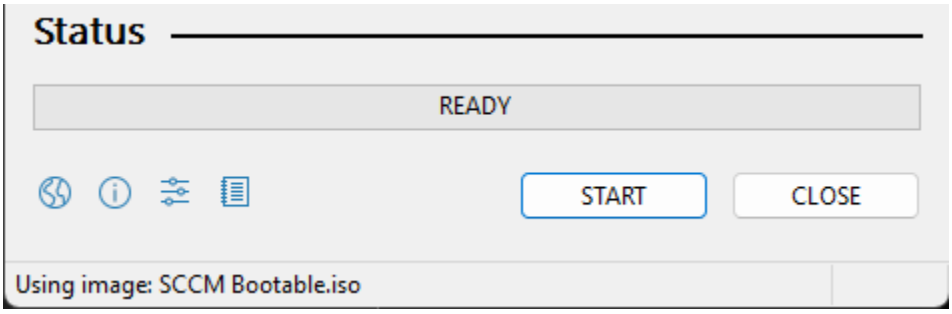
Next press the SELECT button to choose the Image file and click Open



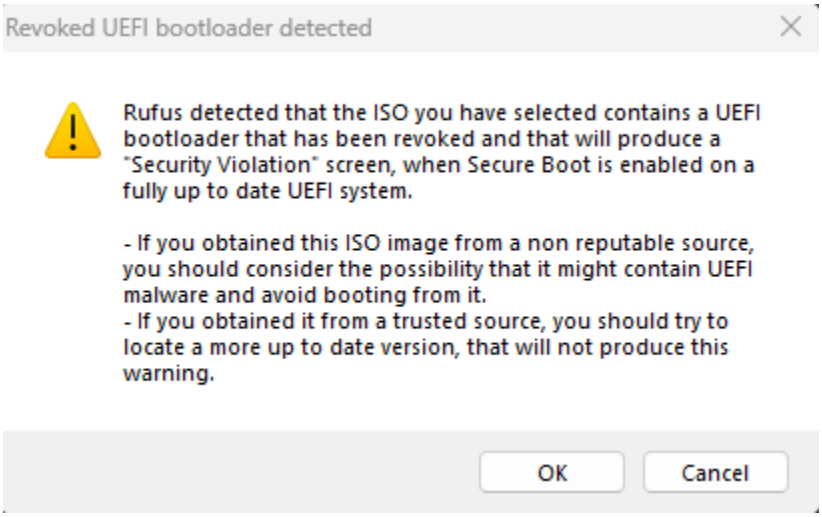
Rename the USB Flash drive if you want to, this step is optional.



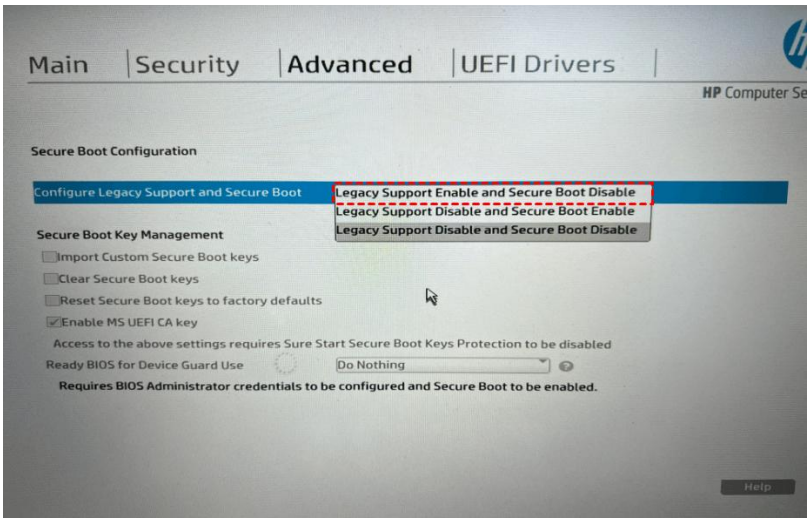
Click Start



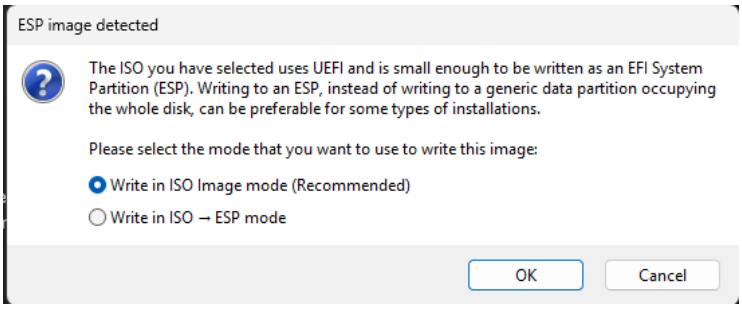
You might get this error:

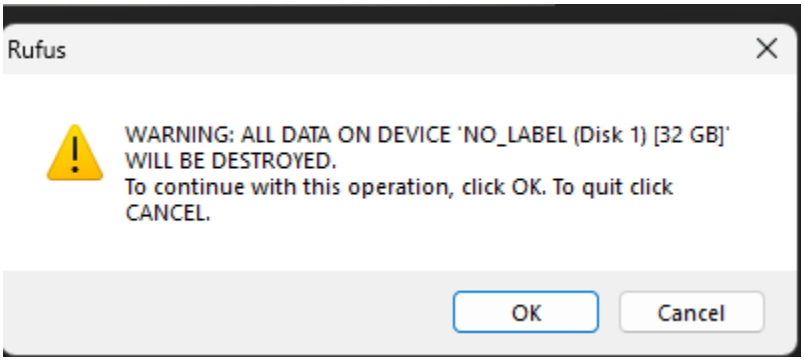


If this happens either turn OFF Secure boot in the BIOS of the computer you are going to reimage or contact End User Technology team to have them generate a UEFI compatible image.

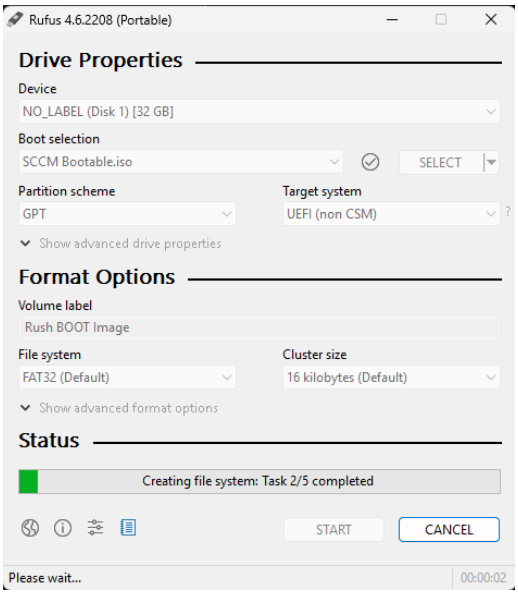


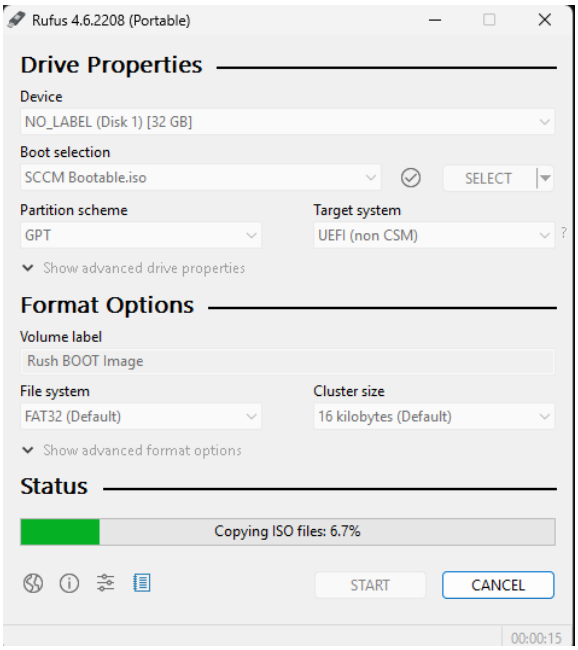
you can accept the recommended ISO image Mode. Click OK.

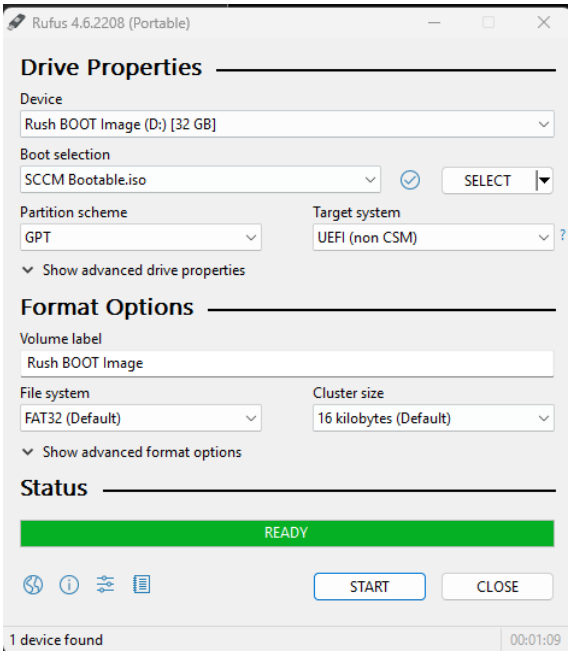




Make sure there is nothing you need on the USB flash drive, because it will be formatted. Click OK

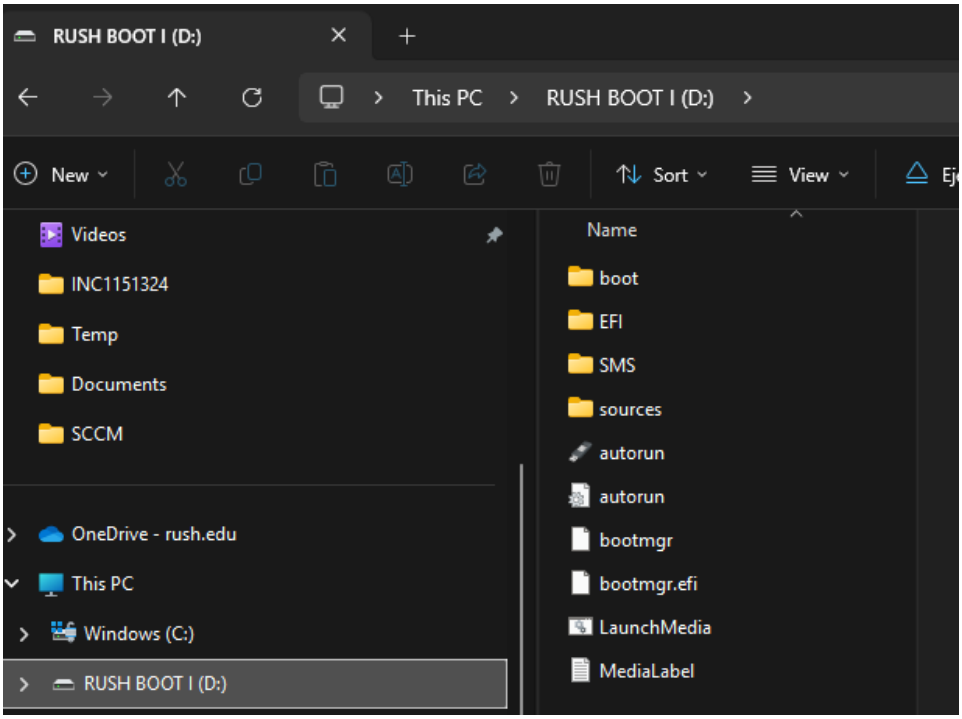




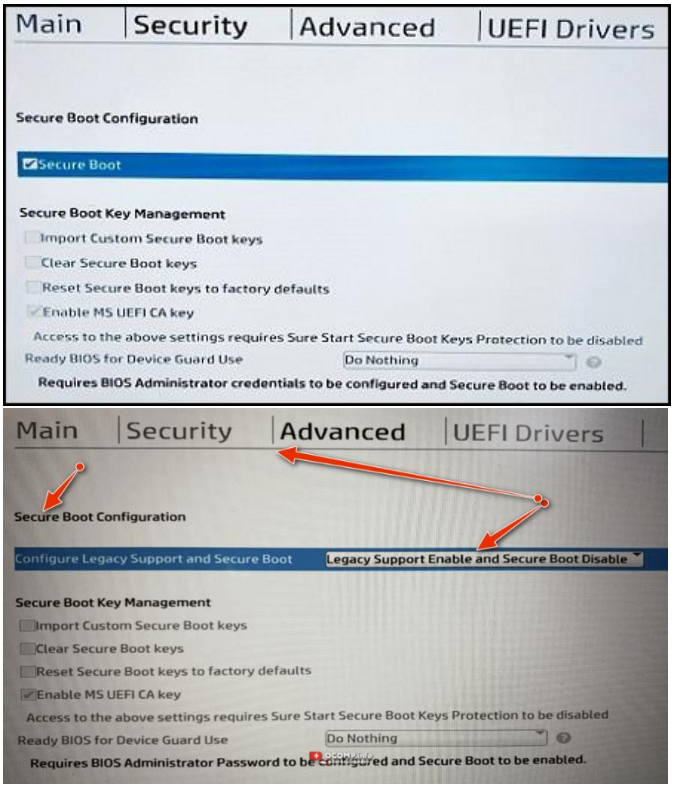


When done you will see the new Bootable flash drive in your File Explorer. Eject the drive and it is

ready to reimage computers.



If you do need to disable secure boot, you can find it in the BIOS settings depending on the version you have installed it can be found either in the Security or Advanced sections.



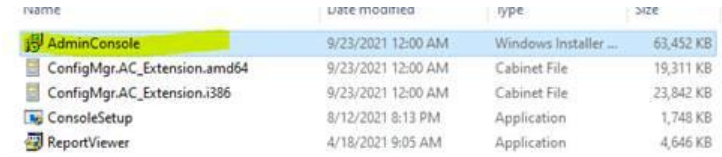
Install SCCM Admin Console

The SCCM Admin Console is a program that helps IT staff manage and set up computers across a whole organization. Go to

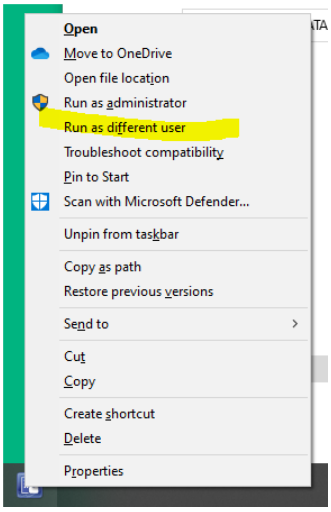
\\rush.edu\Data\IS\Infosvcs\FLDTECH\New_Hire_Folder\Useful_Software\SCCM\SCCM Console

Copy the folder to your computer

Shift + Right click on **AdminConsole**

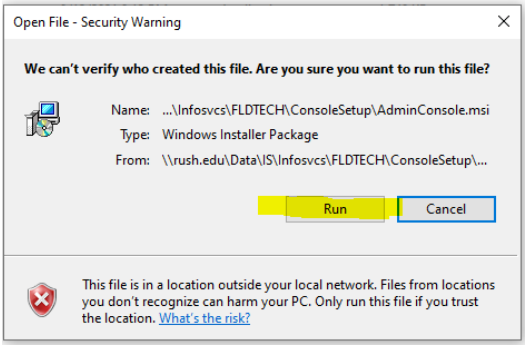


Select **Run As Different User**



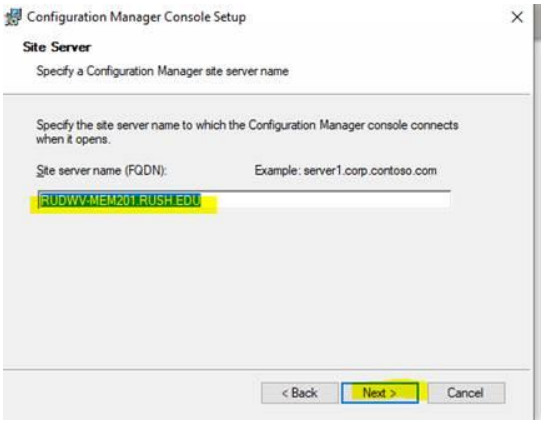
Login with your ent account
Find your ent password at https://cyberark.rush.edu

On the Security Warning Page, click on **Run** button

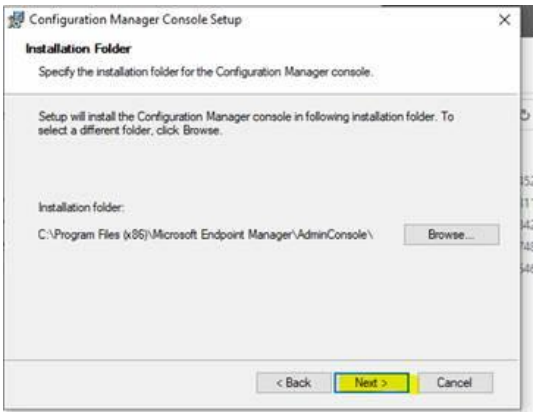


Click Next

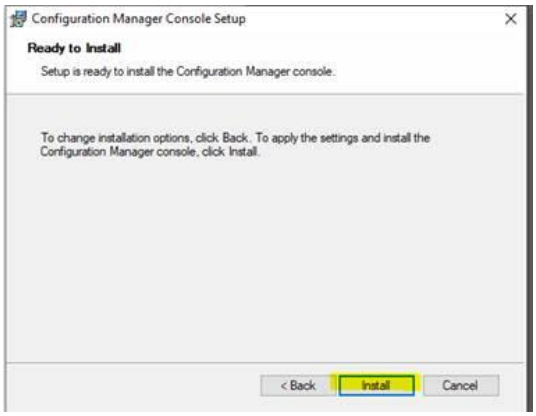
Type in the Server name **RUDWV-MEM201.RUSH.EDU** and click next



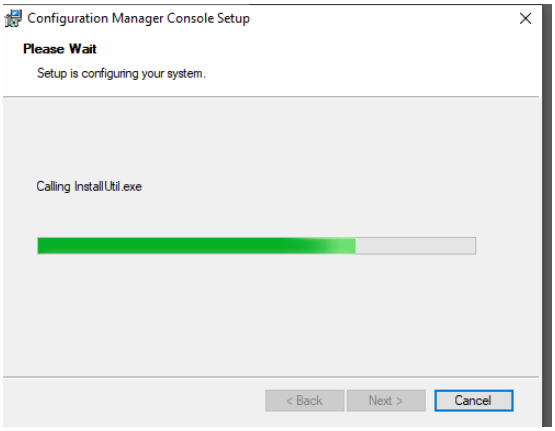
Click Next



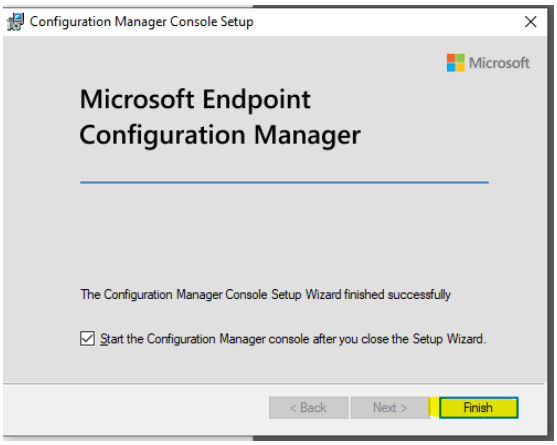
Click Install



Wait for installation to complete.

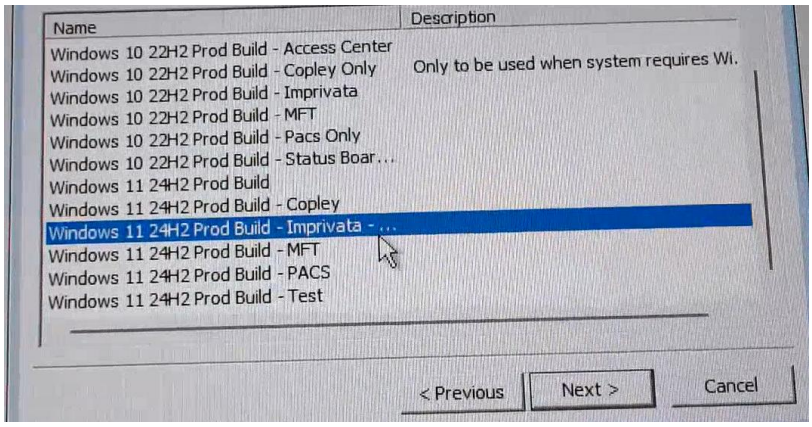


Click Finish



Imprivata Image Configuration

This section is applicable for a computer requires the Imprivata badge reader access or it arrived with the Imprivata image pre-installed.



Once you have the Imprivata imaged computer powered on.

Log in to the computer using the default credentials:

- Username: **.\install**
- Password: **cb@sf03**

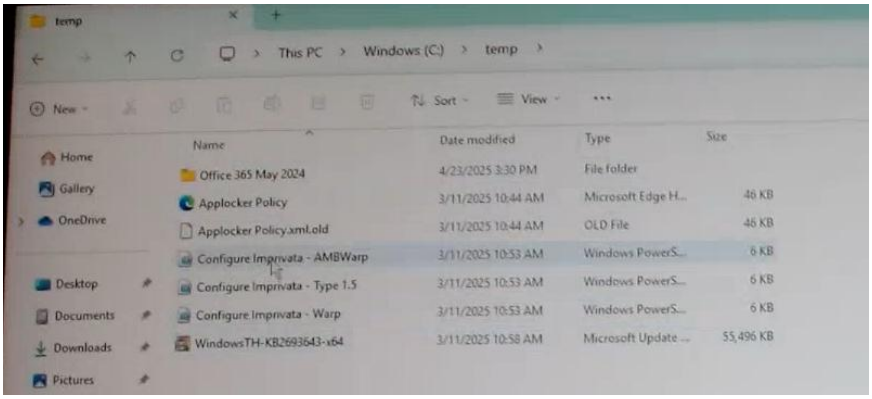
When asked to select a new password just use the same default password or press cancel. When the computer joins the domain, LAPS (Local Administrator Password Solution) will take over and manage the password.

When first logging on to PACE imaged Imprivata computer you can click ESC to bypass the login

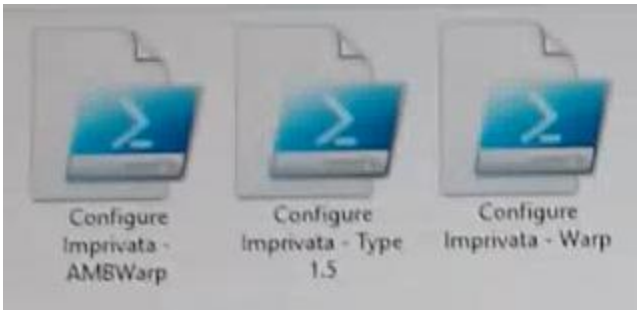
Once you are logged in for the first time complete the

- Windows Updates
- HPIA Driver updates

The scripts to configure Imprivata are in the C:\temp folder.



- **Configure Imprivata – AMBWarp**: Exam rooms, Clinics, Ambulatory Sites
- **Configure Imprivata – Warp:** Mobile Cart, in-patient/admitted patient room Alcoves (90% of hospital)
- **Configure Imprivata – Type 1.5**: Multiuser login station with full windows profile, like a nursing station. So they can access their email and full files.

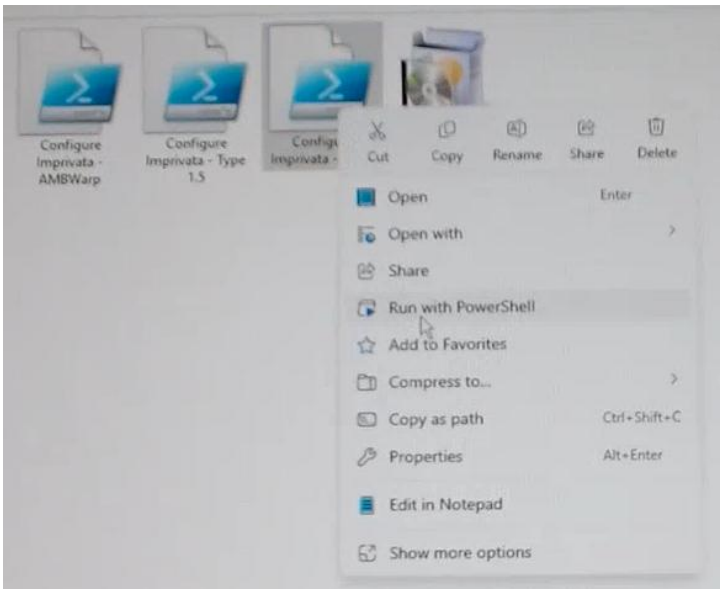


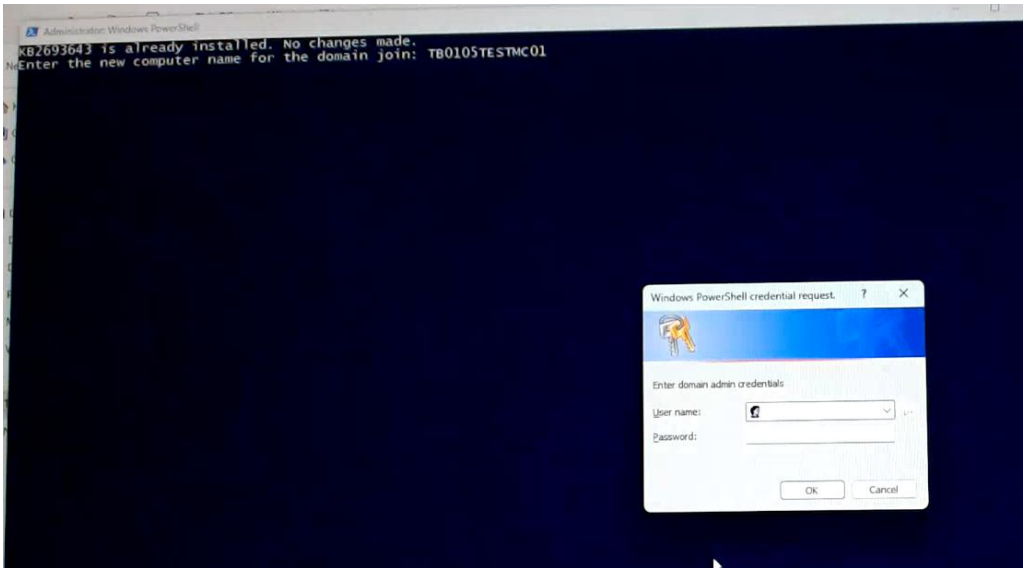
These scripts will

1. Rename the computer hostname
2. Join the Rush Domain

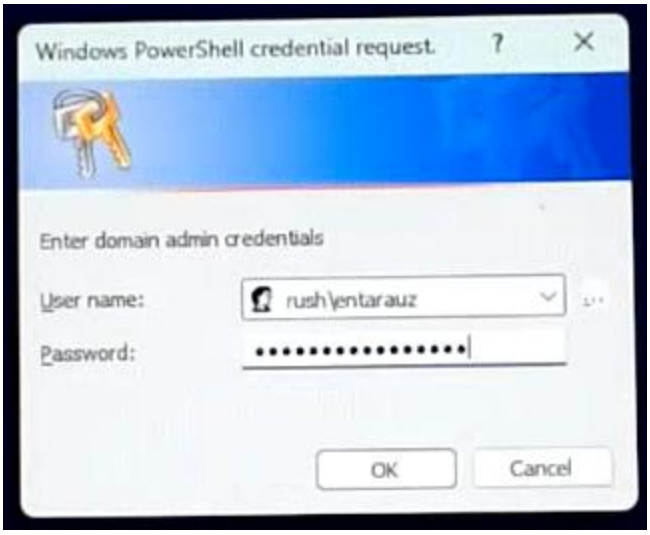
Note: Be sure to determine how Imprivata will be used on the machine you are imaging.

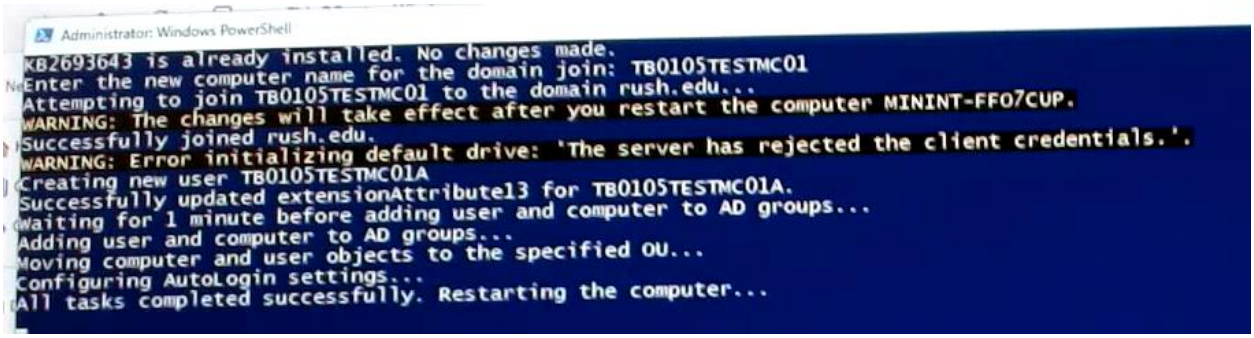
Right Click on the script and select Run with PowerShell.





When prompted for admin credentials to join the domain be sure to include **rush** and then your ENT account. Otherwise, the computer will not know which domain to join



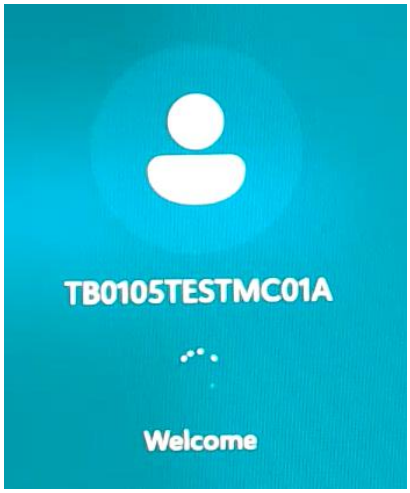


Be sure to move the computer to the correct Organizational Unit based on the computer's final location.

Once the script has run it will create an autologin account and reboot the computer.
The autologin account will be the computer hostname with the letter 'a' added at the end.

Example:

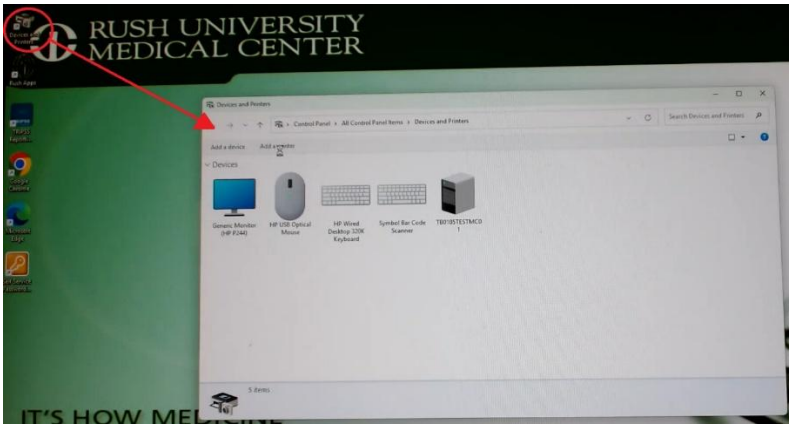
- Hostname: TBTESTPC01
- Autologin account: TBTESTPC01A
- Password: rushvdi@RUMC

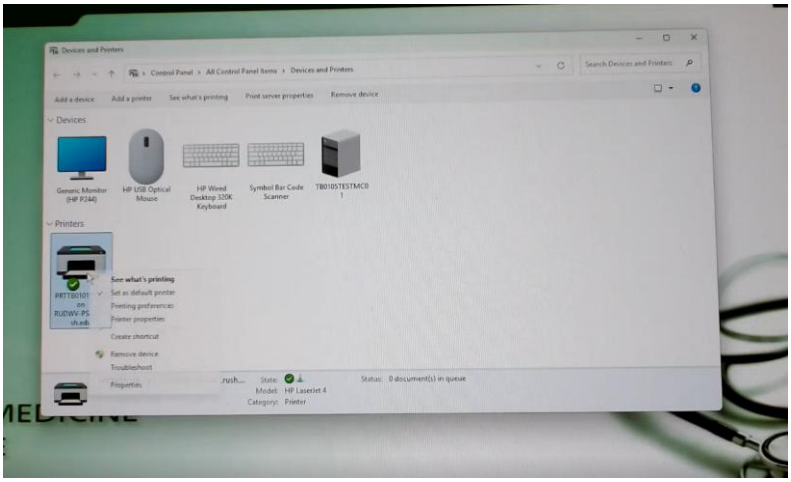


You may see the original Imprivata login page. The newer Imprivata login screen will be applied later when the group policies finish syncing with the computer.

You can login with your Ent account.

Add the relevant printers to the computer.



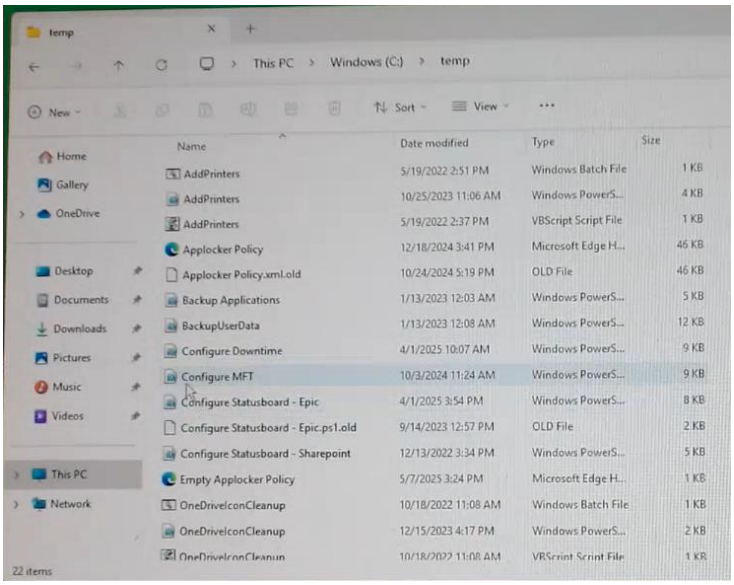


Once the printer has been added. The computer is ready for deployment.

*Additional drivers might be required for peripherals depending on type of cart.

MFT Image

After imaging with the **Windows 11 24H2 Prod Build – MFT.** You will find three MFT related configuration scripts in the c:\temp folder.



- Configure Downtime: Downtime computer deployment
- Configure MFT: Regular MultiFunction Terminal deployment
- Configure Statusboard – Epic: Status Board with Epic Display

Right click on the intended script and select “Run with powershell”

Move to Correct OU before running the scripts found in the temp folder

Configure Downtime

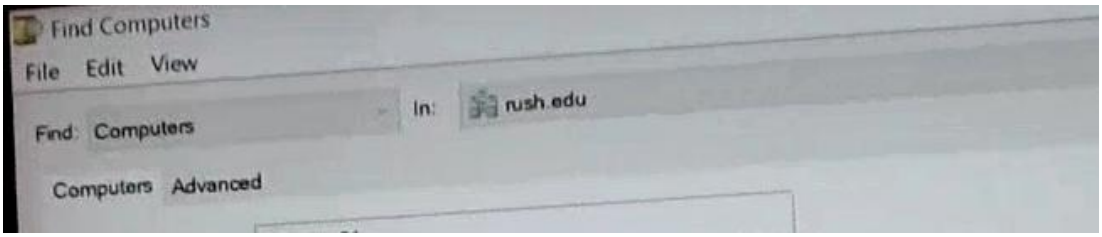
The EPIC electronic health records (EHR) DOWNTIME feature is a backup system that helps hospitals keep working if the main computer system goes down. When EPIC is not working, DOWNTIME lets doctors and nurses still see important patient information and keep track of care. This means that even during computer problems or updates, hospital staff can continue helping patients safely and keep everything running smoothly.

Note: Computer hostname must already be in the downtime server’s list of hostnames if you need to change the hostname it must also be done on the epic server side as well you need to contact End User Technology (EUT) Team. In general, never change the hostname.

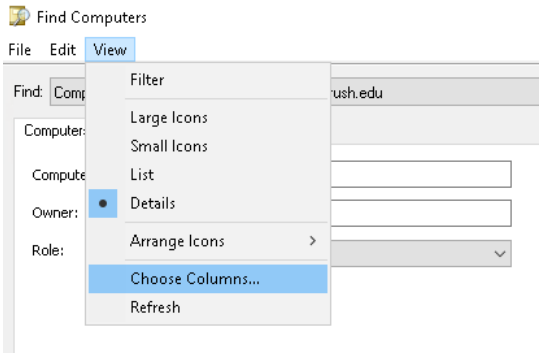
Here is how you set it up after the MFT image is completed.

You need to make sure the computer’s hostname is in the MFTDOWNTIME organizational unit. Open Active Directory with your ENT account.

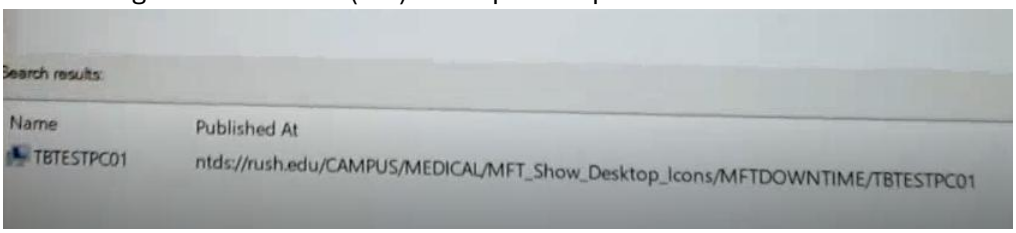
Search for the hostname in Find: Computers in Rush.edu.



You might need to enable a new column in the Find window to see which OU the hostname is located. If you don't see the Published At column, click on the **View** menu and select **Choose Columns...**



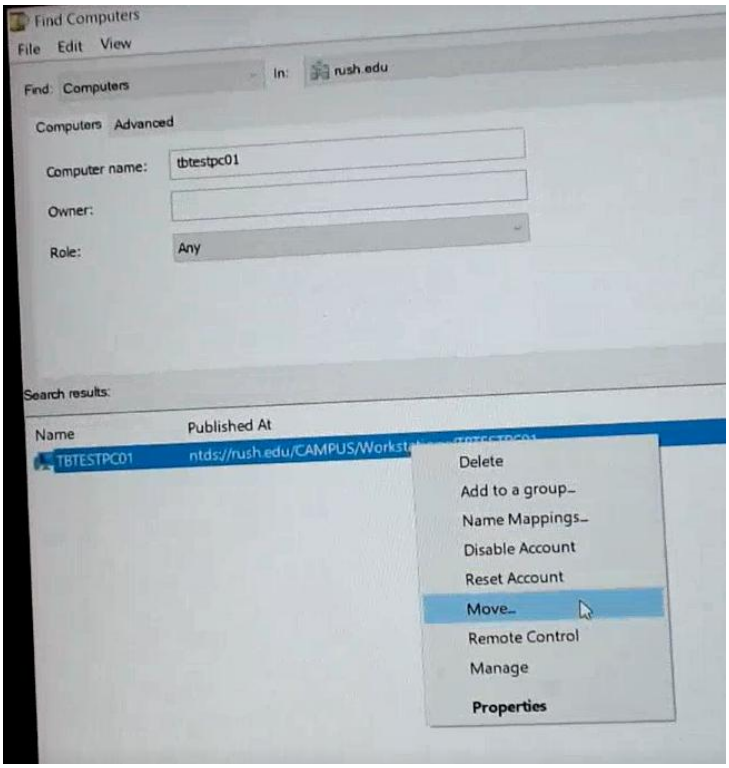
Select **Published At**, click on the **ADD >>** button and click **OK**. This column will show you the current Organizational Unit (OU) a computer is part of.



Confirm the hostname is Published At

ntds://rush.edu/ CAMPUS/MEDICAL/MFT_Show_Desktop_Icons/MFTDOWNTIME

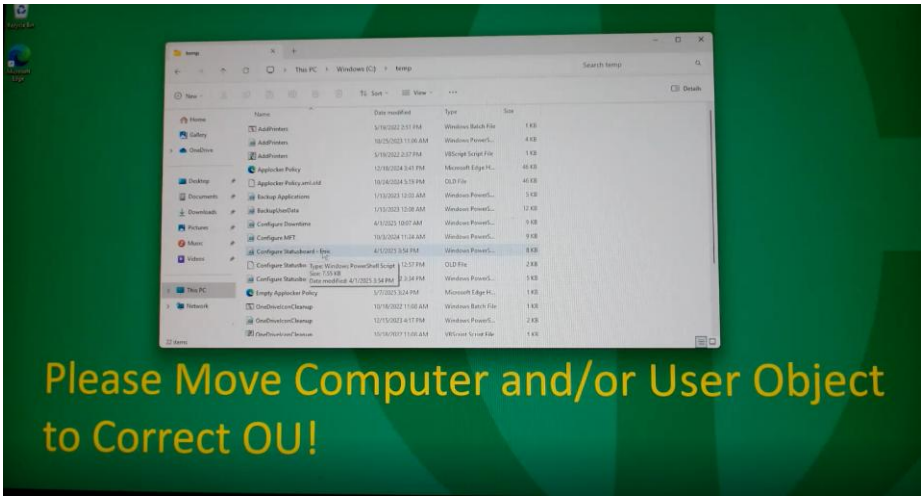
If not, Right click on hostname and select Move.



Navigate to

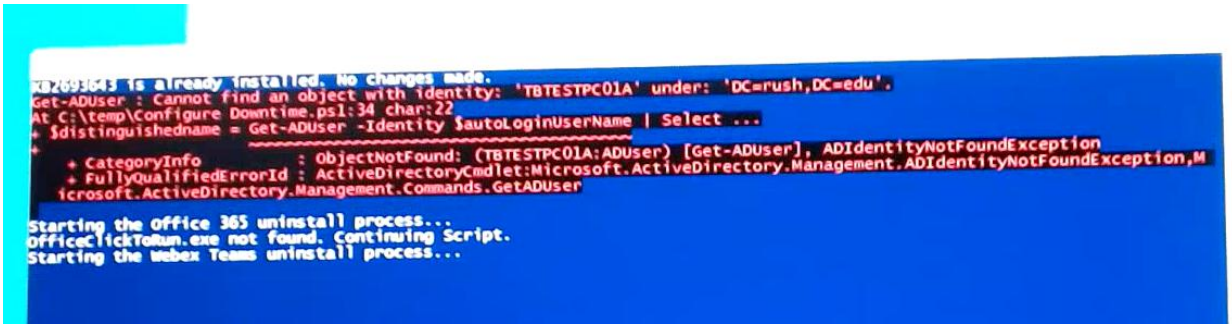
Rush -> CAMPUS -> MEDICAL -> MFT_Show_Desktop_Icons -> MFTDOWNTIME

Run “Configure Downtime”



Open File Explorer and navigate c:\temp and right click on “Configure Downtime” script and select Run in Powershell.

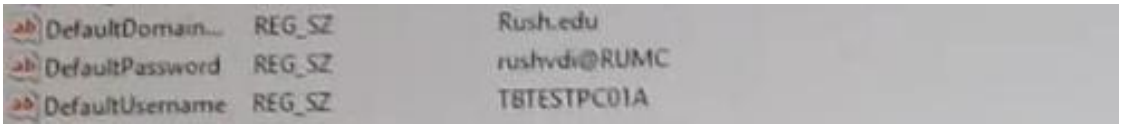
NOTE: Be sure to name the computer with an existing hostname registered in EPIC as a downtime computer and in MFTDOWNTIME organizational unit or else you may see the error in the image below. If you need to register a net NEW hostname contact End User Technologies team for assistance.



Once the script has run it will create an autologin account and reboot the computer.
The autologin account will be the computer hostname with the letter ‘a’ added at the end.

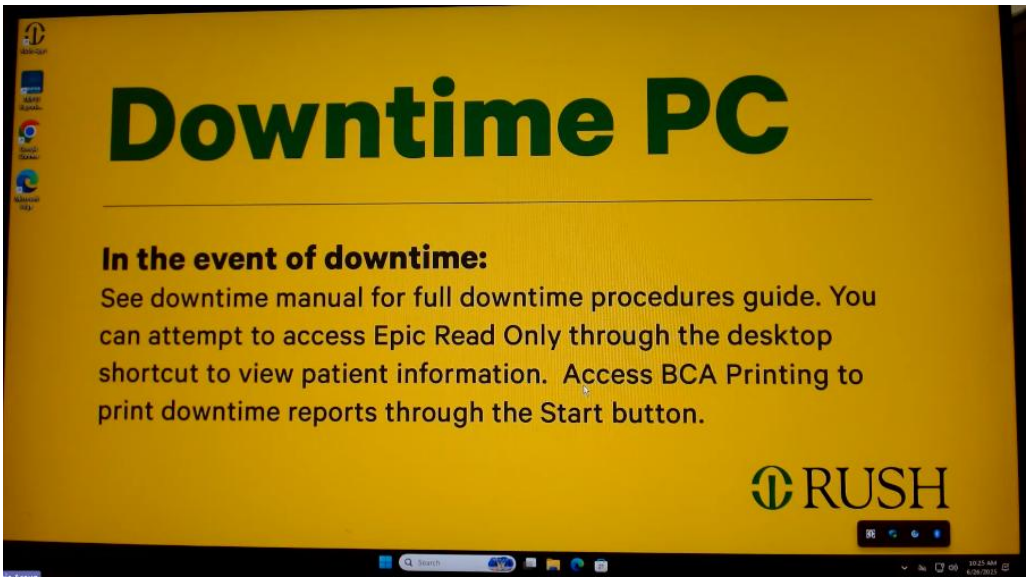
Example:

- Hostname: TBTESTPC01
- Autologin account: TBTESTPC01A
- Password: rushvdi@RUMC

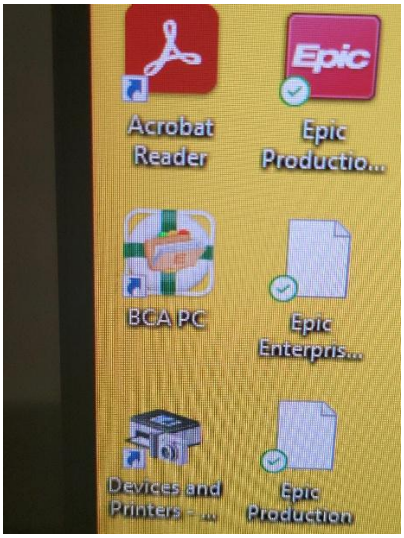


Once computer policies update you will see background change on the computer.

NOTE: Once in the DOWNTIME OU right clicking is DISABLED.



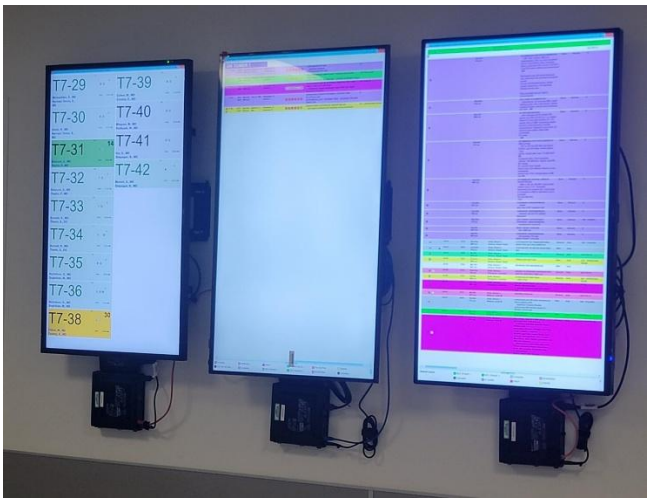
20-40 minutes after login with the auto user account, the Epic BCA PC Satellite application (White and Green life preserver) is expected to show up on the Desktop.



If the satellite application does not appear. Find the computer hostname in Active Directory and add the **mem_epic_satellite_imprivata_pc_device** membership to the computer.

Install the RED KEYBOARDS with downtime computers.

Configure Status Board



A hospital status board is a centralized digital display used to monitor and communicate real-time information about patient locations, bed availability, and overall hospital operations. It helps staff coordinate patient care by providing instant visibility into admissions, discharges, transfers, and other critical updates. By streamlining workflow and enhancing situational awareness, the status

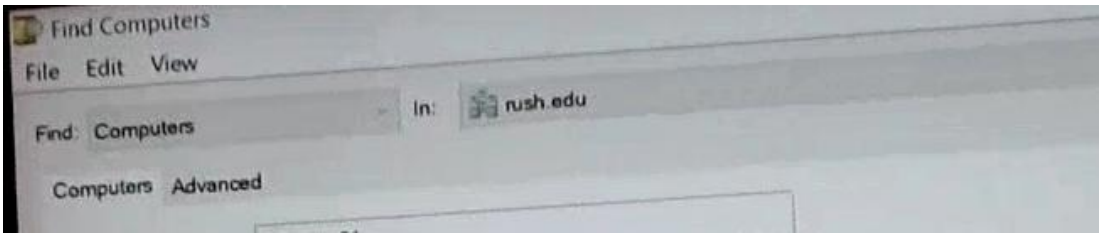
board improves efficiency and supports better decision-making for both clinical and administrative teams.

Here is how you set it up after the MFT image is completed.

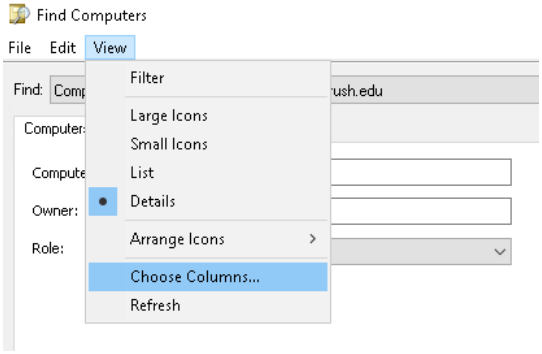
****Make sure all the HPIA drivers are up to date HPIA Driver updates****

You need to make sure the computer's hostname is in the MFTGREASEBOARD organizational unit. Open Active Directory with your ENT account.

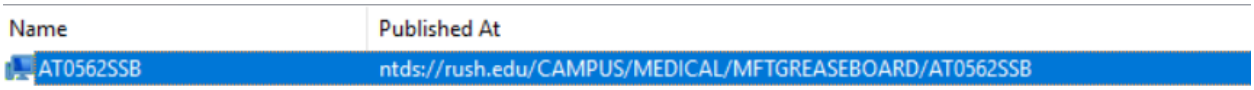
Search for the hostname in Find: Computers in Rush.edu.



You might need to enable a new column in the Find window to see which OU the hostname is located. If you don't see the Published At column, click on the **View** menu and select **Choose Columns...**



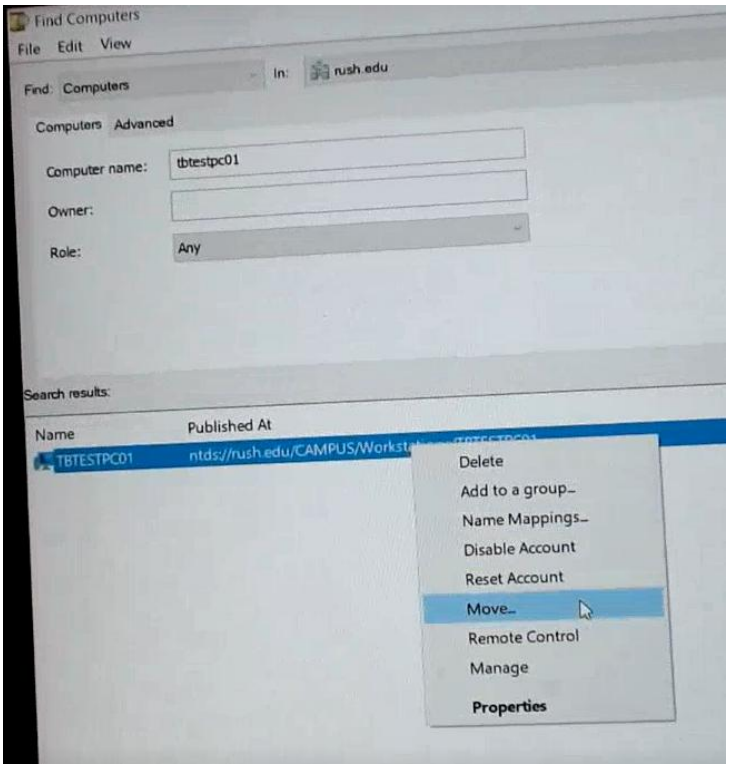
Select **Published At**, click on the **ADD >>** button and click **OK**. This column will show you the current Organizational Unit (OU) a computer is part of.



Confirm the hostname is Published At

ntds://rush.edu/CAMPUS/MEDICAL/MFTGREASEBOARD

If not, Right click on hostname and select Move.

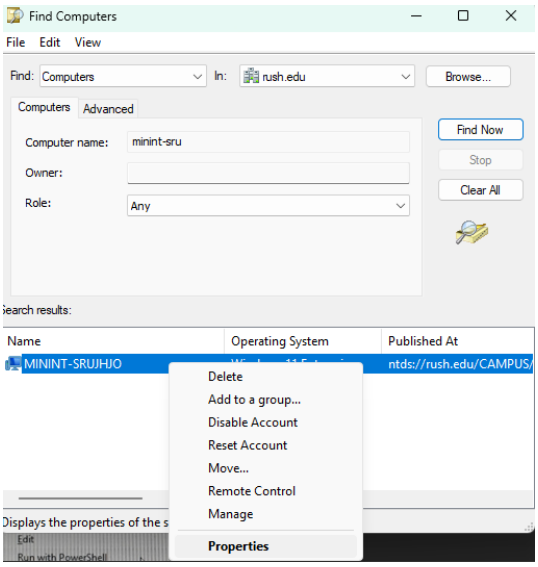


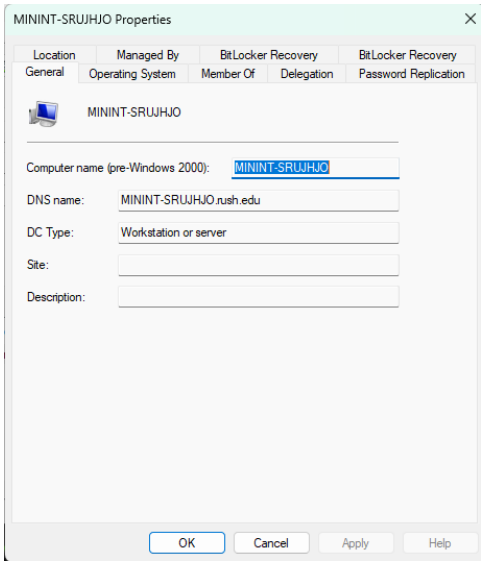
Navigate to

Rush -> CAMPUS -> MEDICAL -> MFTGREASEBOARD

Adding Memberships to the Computer

Right click on the selected computer and click on Properties. In the Properties window select Member Of





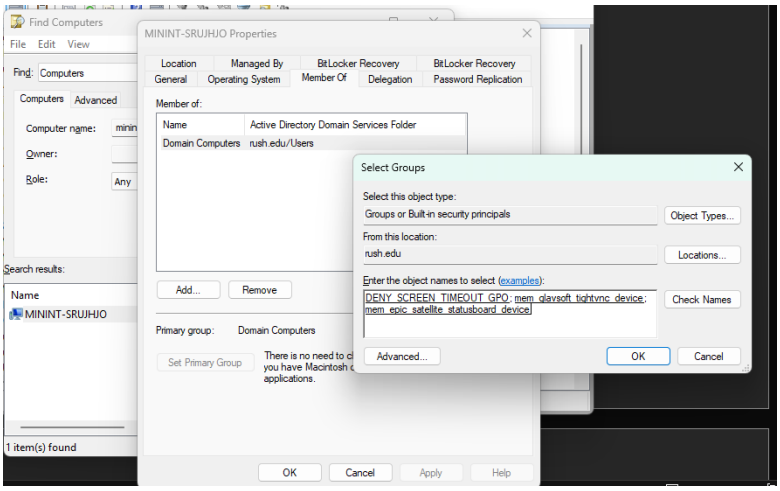
This screen will show all the memberships and group policies applied to this computer. because this is a status board, we are going to add

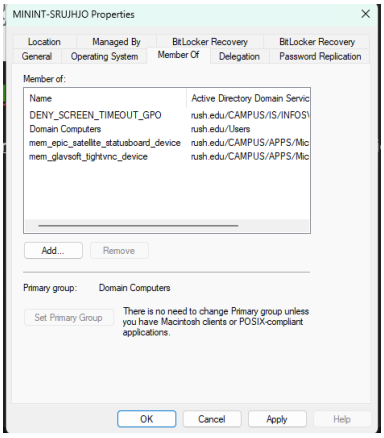
- **DENY_SCREEN_TIMEOUT_GPO** = This will stop the screen from going blank/locking the pc
- **mem_glavsoft_tightvnc_device** = this installs a VNC server on the computer to access the display remotely

- mem_epic_satellite_statusboard_device = this will install the application that will call the status board information from EPIC

You can copy the code below into the object names window in the select groups page, then click check names to make sure they are all correct and click OK on all the windows.

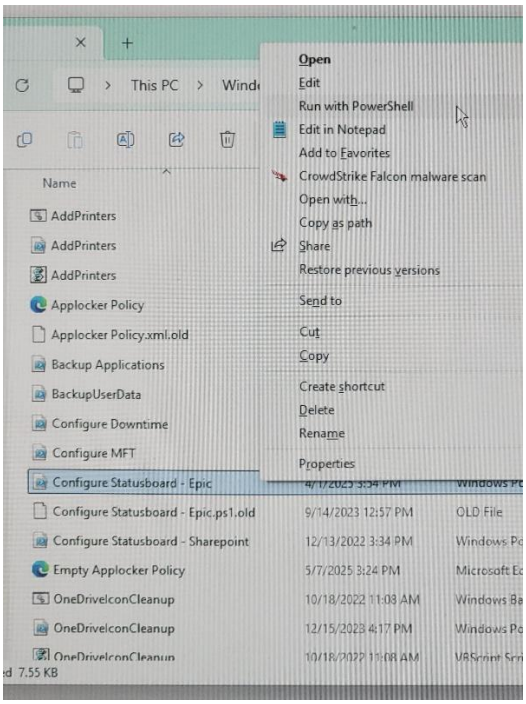
DENY_SCREEN_TIMEOUT_GPO; mem_glavsoft_tightvnc_device; mem_epic_satellite_statusboard_device





Run “Configure Statusboard - Epic”

Open File Explorer and navigate **c:\temp** and right click on “Configure Statusboard - Epic” script and select Run in Powershell.

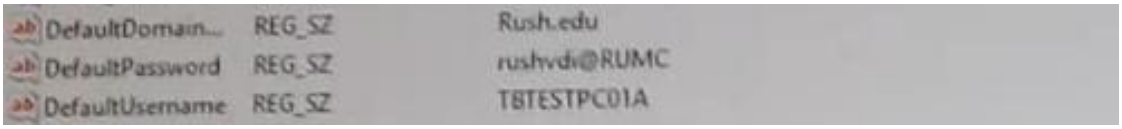


NOTE: Be sure to name the computer with an existing hostname registered as a status board in EPIC. If you need to register a net NEW hostname contact End User Technologies team for assistance.

Once the script has run it will create an autologin account and reboot the computer.
The autologin account will be the computer hostname with the letter ‘a’ added at the end.

Example:

- Hostname: TBTESTPC01
- Autologin account: TBTESTPC01A
- Password: rushvdi@RUMC



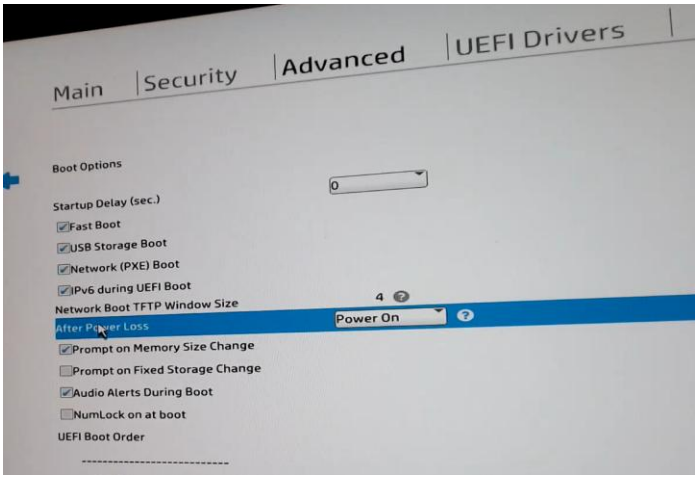
Once computer policies update you will see background change on the computer.

NOTE: Once in the DOWNTIME OU right clicking is DISABLED.

Bios Settings

On HP computers, Press F10 repeatedly, while powering **ON** the computer to get to the BIOS (Basic Input Output System) menu.

Be sure to set the after-power loss to **Power On**



Special Thanks to:

Viral Patel

Naaman Miles & Nasseem Syed

Knowledgebase articles

Random Notes and documentation in the IT Services Shared Drive