

# Staging Guide – Ubiquiti WIM AP

Viasat Community Internet  
Revision – 2020.12.02



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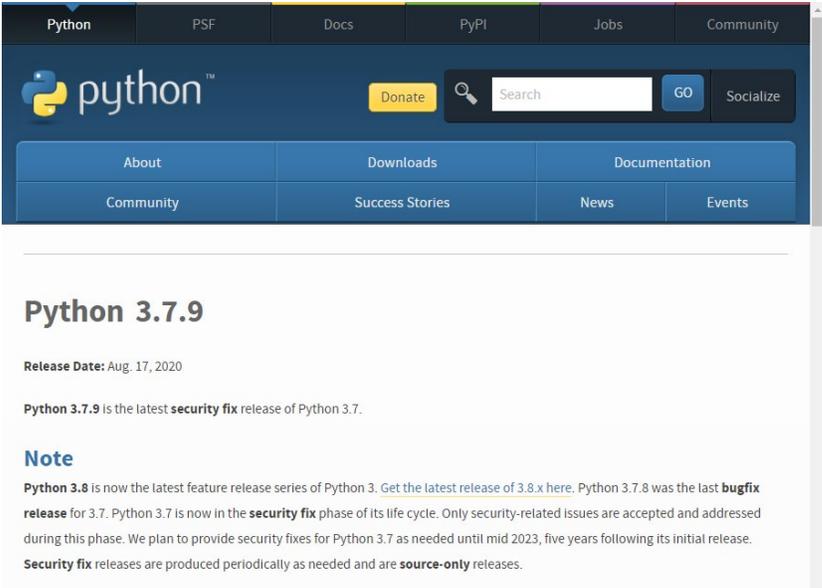
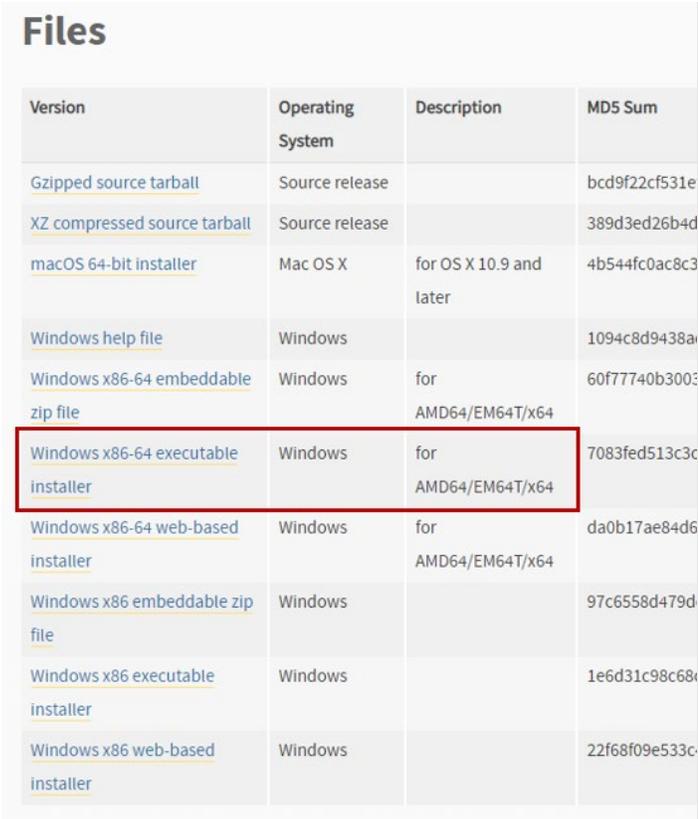
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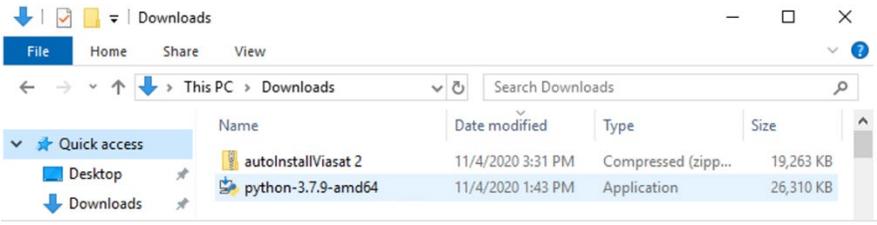
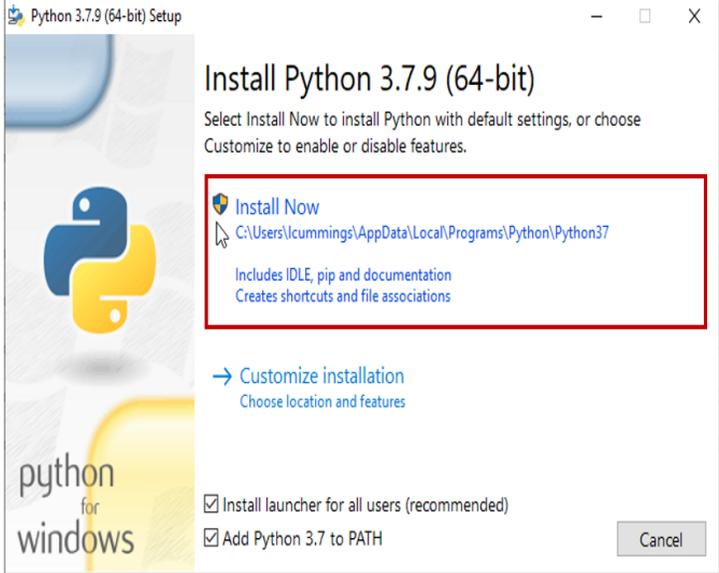
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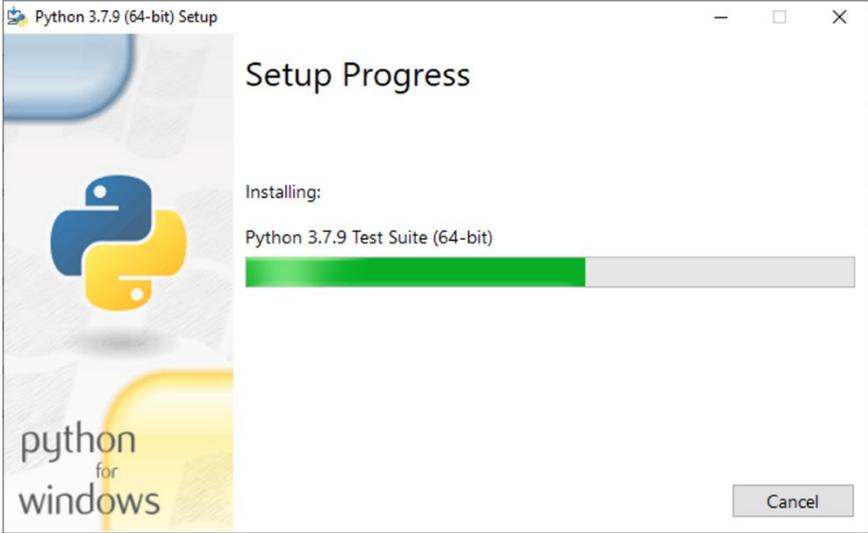
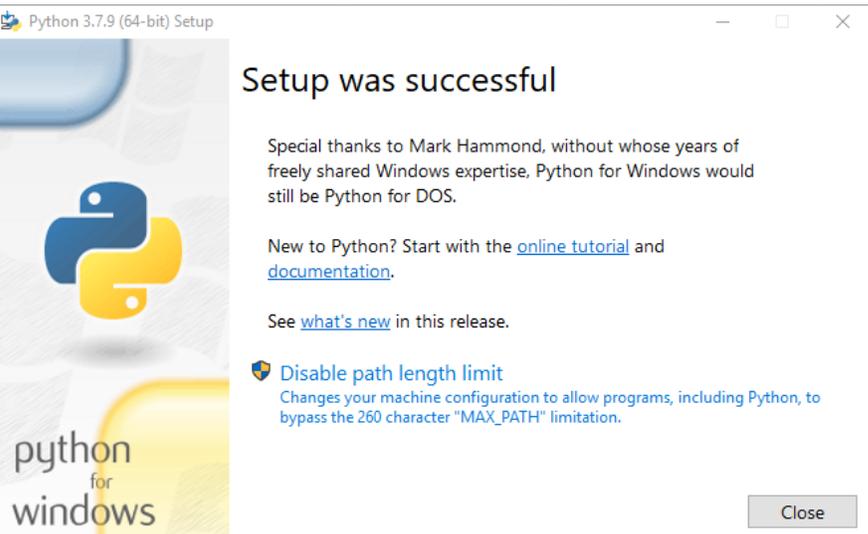
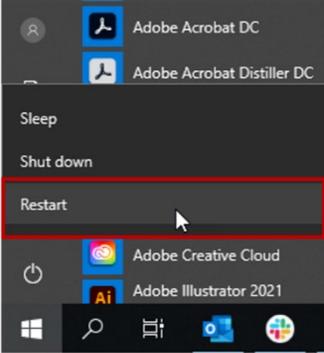
### **REQUIRED ITEMS:**

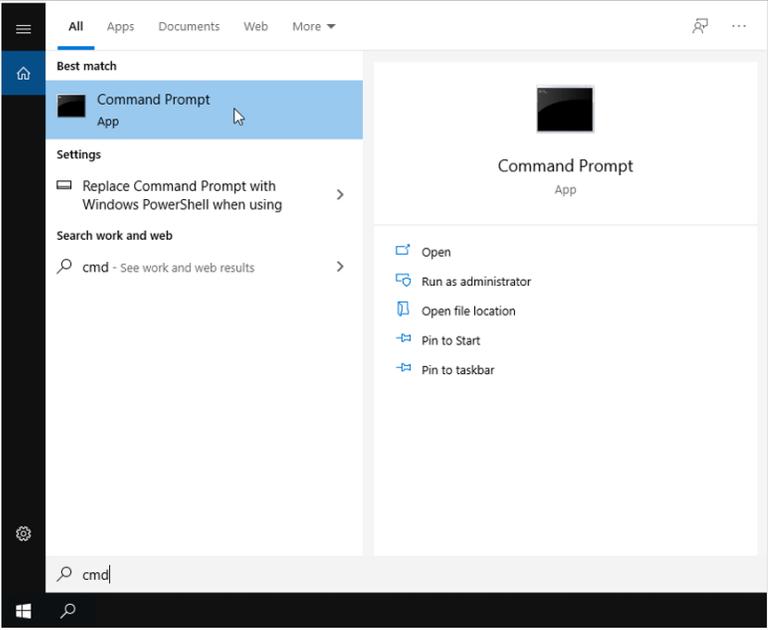
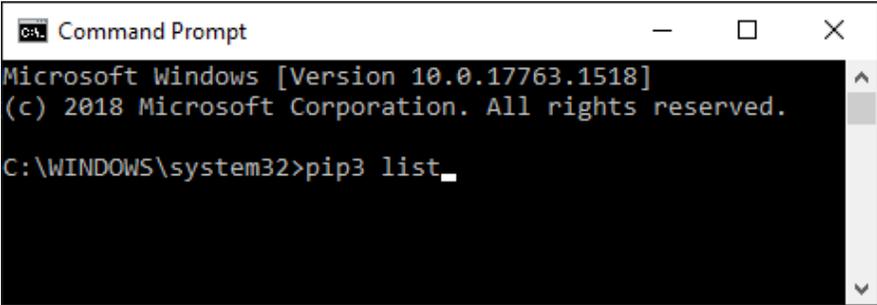
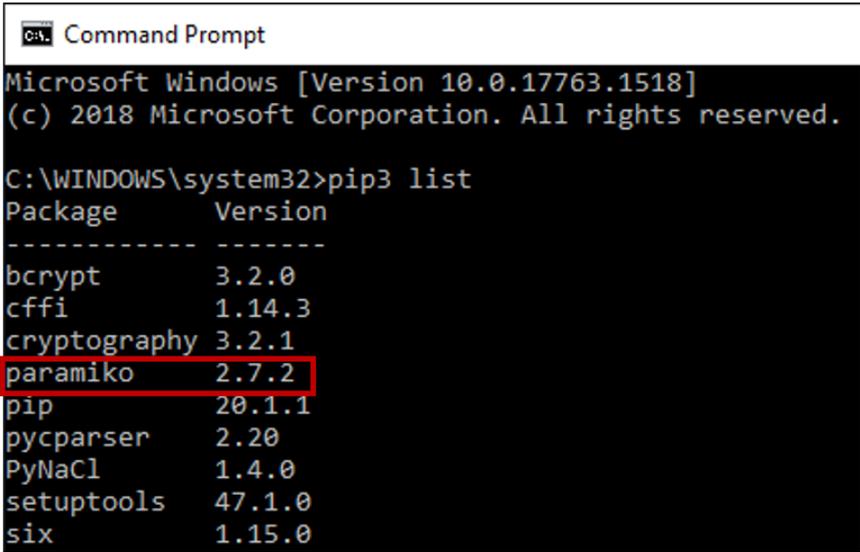
- Latest version of the autoInstallViasat.zip file from <https://eguide.field.viasat.com/staging-guide-ubiquiti-ap/>
- Ubiquiti AP (*note – AP must be factory reset before beginning the software installation process*)
- Laptop with internet connection and RJ45 ethernet port.
- 2 Ethernet cords
- Something thin and rigid (such as a paperclip) to reset the AP
- A working outlet with reliable power

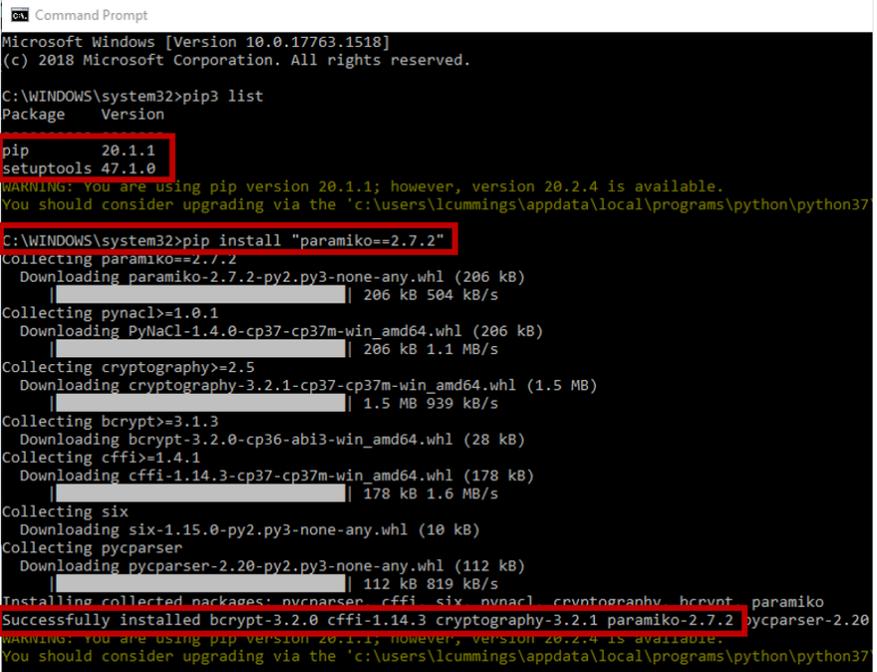
**One-time steps for initial laptop setup:**

<p>1.</p>	<p>Open a web browser and navigate to <a href="https://www.python.org/downloads/release/python-379/">https://www.python.org/downloads/release/python-379/</a></p> <p>*Note – Skip to step 8 if Python is already installed.</p>																																													
<p>2.</p>	<p>Scroll to the files section of the page and select the “executable installer” file that corresponds to your operating system.</p>	 <table border="1"> <thead> <tr> <th>Version</th> <th>Operating System</th> <th>Description</th> <th>MD5 Sum</th> </tr> </thead> <tbody> <tr> <td><a href="#">Gzipped source tarball</a></td> <td>Source release</td> <td></td> <td>bcd9f22cf531e</td> </tr> <tr> <td><a href="#">XZ compressed source tarball</a></td> <td>Source release</td> <td></td> <td>389d3ed26b4d</td> </tr> <tr> <td><a href="#">macOS 64-bit installer</a></td> <td>Mac OS X</td> <td>for OS X 10.9 and later</td> <td>4b544fc0ac8c3</td> </tr> <tr> <td><a href="#">Windows help file</a></td> <td>Windows</td> <td></td> <td>1094c8d9438a</td> </tr> <tr> <td><a href="#">Windows x86-64 embeddable zip file</a></td> <td>Windows</td> <td>for AMD64/EM64T/x64</td> <td>60f77740b3003</td> </tr> <tr style="border: 2px solid red;"> <td><a href="#">Windows x86-64 executable installer</a></td> <td>Windows</td> <td>for AMD64/EM64T/x64</td> <td>7083fed513c3c</td> </tr> <tr> <td><a href="#">Windows x86-64 web-based installer</a></td> <td>Windows</td> <td>for AMD64/EM64T/x64</td> <td>da0b17ae84d6</td> </tr> <tr> <td><a href="#">Windows x86 embeddable zip file</a></td> <td>Windows</td> <td></td> <td>97c6558d479d</td> </tr> <tr> <td><a href="#">Windows x86 executable installer</a></td> <td>Windows</td> <td></td> <td>1e6d31c98c68</td> </tr> <tr> <td><a href="#">Windows x86 web-based installer</a></td> <td>Windows</td> <td></td> <td>22f68f09e533c</td> </tr> </tbody> </table>	Version	Operating System	Description	MD5 Sum	<a href="#">Gzipped source tarball</a>	Source release		bcd9f22cf531e	<a href="#">XZ compressed source tarball</a>	Source release		389d3ed26b4d	<a href="#">macOS 64-bit installer</a>	Mac OS X	for OS X 10.9 and later	4b544fc0ac8c3	<a href="#">Windows help file</a>	Windows		1094c8d9438a	<a href="#">Windows x86-64 embeddable zip file</a>	Windows	for AMD64/EM64T/x64	60f77740b3003	<a href="#">Windows x86-64 executable installer</a>	Windows	for AMD64/EM64T/x64	7083fed513c3c	<a href="#">Windows x86-64 web-based installer</a>	Windows	for AMD64/EM64T/x64	da0b17ae84d6	<a href="#">Windows x86 embeddable zip file</a>	Windows		97c6558d479d	<a href="#">Windows x86 executable installer</a>	Windows		1e6d31c98c68	<a href="#">Windows x86 web-based installer</a>	Windows		22f68f09e533c
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<p>3.</p>	<p>Navigate to your downloads folder and double click the downloaded python file. The Python 3.7.9 installer will appear.</p>	
<p>4.</p>	<p>Make sure both “Install launcher for all users (recommended)” and “Add Python 3.7 to PATH” are selected.</p>	
<p>5.</p>	<p>Click <b>Install Now</b>.</p>	
<p>6.</p>	<p>Installation will begin.</p>	

		
<p>7.</p>	<p>When the installation is complete, a “Setup was successful” screen will appear.</p>	
<p>8.</p>	<p>After the installation is complete, <b>restart your computer.</b></p>	
<p>9.</p>	<p>After your computer is rebooted, open Command Prompt.</p>	

		 <p>The screenshot shows the Windows search interface. The search bar at the top contains 'cmd'. Below the search bar, the results are categorized into 'Best match' and 'Settings'. Under 'Best match', 'Command Prompt' is listed as an 'App'. Under 'Settings', there is an option to 'Replace Command Prompt with Windows PowerShell when using'. Under 'Search work and web', there is a result for 'cmd - See work and web results'. On the right side of the search results, there are several actions: 'Open', 'Run as administrator', 'Open file location', 'Pin to Start', and 'Pin to taskbar'.</p>																				
<p>10.</p>	<p>In the Command Prompt window, type <i>pip3 list</i> and press enter. This will verify whether or not the paramiko module is installed.</p> <p><b>NOTE:</b> for some computer copy/paste does not work in the command prompt and text must be typed in manually.</p>	 <p>The screenshot shows a Command Prompt window titled 'Command Prompt'. The text inside the window reads: 'Microsoft Windows [Version 10.0.17763.1518] (c) 2018 Microsoft Corporation. All rights reserved. C:\WINDOWS\system32&gt;pip3 list_'. The cursor is at the end of the command.</p>																				
<p>11.</p>	<p>If you see paramiko listed (as shown to the right), proceed to step 12.</p>	 <p>The screenshot shows a Command Prompt window titled 'Command Prompt'. The text inside the window reads: 'Microsoft Windows [Version 10.0.17763.1518] (c) 2018 Microsoft Corporation. All rights reserved. C:\WINDOWS\system32&gt;pip3 list'. Below this, a list of installed packages is shown with their versions. The 'paramiko' entry is highlighted with a red box. The list is as follows:</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>bcrypt</td> <td>3.2.0</td> </tr> <tr> <td>cffi</td> <td>1.14.3</td> </tr> <tr> <td>cryptography</td> <td>3.2.1</td> </tr> <tr> <td>paramiko</td> <td>2.7.2</td> </tr> <tr> <td>pip</td> <td>20.1.1</td> </tr> <tr> <td>pycparser</td> <td>2.20</td> </tr> <tr> <td>PyNaCl</td> <td>1.4.0</td> </tr> <tr> <td>setuptools</td> <td>47.1.0</td> </tr> <tr> <td>six</td> <td>1.15.0</td> </tr> </tbody> </table>	Package	Version	bcrypt	3.2.0	cffi	1.14.3	cryptography	3.2.1	paramiko	2.7.2	pip	20.1.1	pycparser	2.20	PyNaCl	1.4.0	setuptools	47.1.0	six	1.15.0
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<p>12.</p>	<p>If you do not see paramiko listed, type <i>pip install</i></p>																					

<p>“<b>paramiko==2.7.2</b>” and press Enter. Make sure to add the quotation marks for this text.</p> <p>When the installation is complete, Command Prompt will display “successfully installed paramiko – 2.7.2” as shown.</p>	 <pre>Command Prompt Microsoft Windows [Version 10.0.17763.1518] (c) 2018 Microsoft Corporation. All rights reserved.  C:\WINDOWS\system32&gt;pip list Package      Version ----- pip          20.1.1 setuptools   47.1.0  WARNING: You are using pip version 20.1.1; however, version 20.2.4 is available. You should consider upgrading via the 'c:\users\lcummings\appdata\local\programs\python\python37  C:\WINDOWS\system32&gt;pip install "paramiko==2.7.2" Collecting paramiko==2.7.2   Downloading paramiko-2.7.2-py2.py3-none-any.whl (206 kB)      -----  206 kB 504 kB/s Collecting pynacl&gt;=1.0.1   Downloading PyNaCl-1.4.0-cp37-cp37m-win_amd64.whl (206 kB)      -----  206 kB 1.1 MB/s Collecting cryptography&gt;=2.5   Downloading cryptography-3.2.1-cp37-cp37m-win_amd64.whl (1.5 MB)      -----  1.5 MB 939 kB/s Collecting bcrypt&gt;=3.1.3   Downloading bcrypt-3.2.0-cp36-abi3-win_amd64.whl (28 kB) Collecting cffi&gt;=1.4.1   Downloading cffi-1.14.3-cp37-cp37m-win_amd64.whl (178 kB)      -----  178 kB 1.6 MB/s Collecting six   Downloading six-1.15.0-py2.py3-none-any.whl (10 kB) Collecting pycparser   Downloading pycparser-2.20-py2.py3-none-any.whl (112 kB)      -----  112 kB 819 kB/s Installing collected packages: pycparser, cffi, six, pynacl, cryptography, bcrypt, paramiko Successfully installed bcrypt-3.2.0 cffi-1.14.3 cryptography-3.2.1 paramiko-2.7.2 pycparser-2.20 WARNING: You are using pip version 20.1.1; however, version 20.2.4 is available. You should consider upgrading via the 'c:\users\lcummings\appdata\local\programs\python\python37</pre>
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**Steps to be completed for each AP:**

<p>13. Plug one end of an ethernet cord into the AP ethernet port.</p>	
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14. Plug the other end of the ethernet cord into the POE port of the AP PoE injector and connect to a working power outlet.



15. Factory reset the AP by using a narrow object to press and hold the reset button until the status light turns off. This will take 5-20 seconds.

Release the Reset button once the status light turns off.



16. Connect a second ethernet cord to the "LAN" port of the AP power brick.



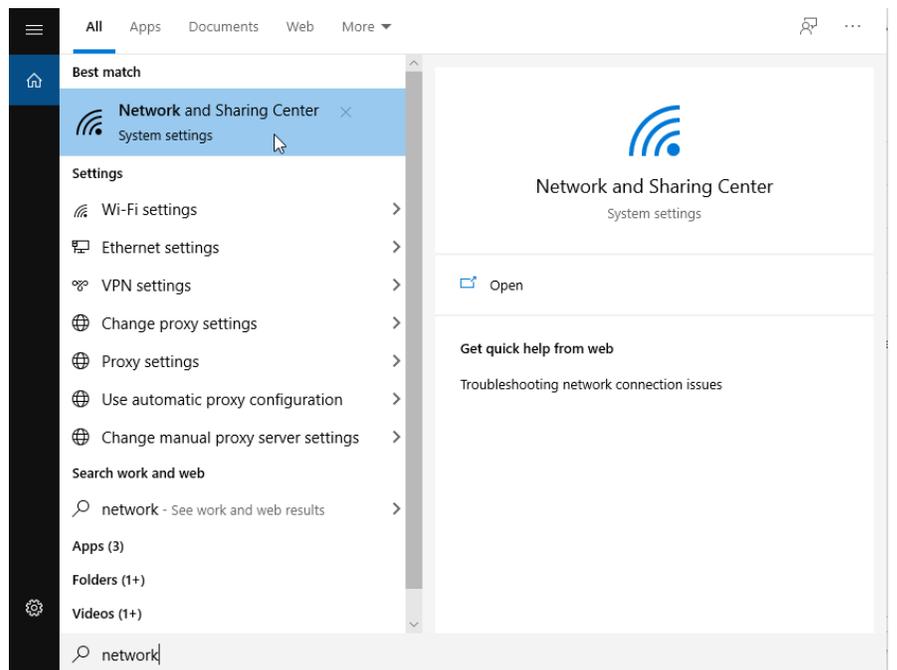
17. Connect the other end of this ethernet cord to the laptop or computer with Python downloaded.



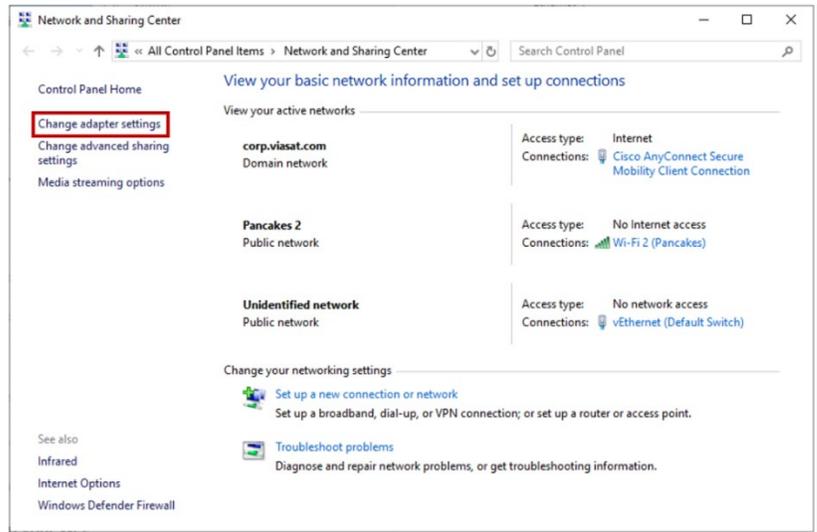
18. Manually configure the laptop IP address and Subnet mask. Please note that this process may vary by operating system.

Open the laptop's Network and Sharing Center or Network Connections.

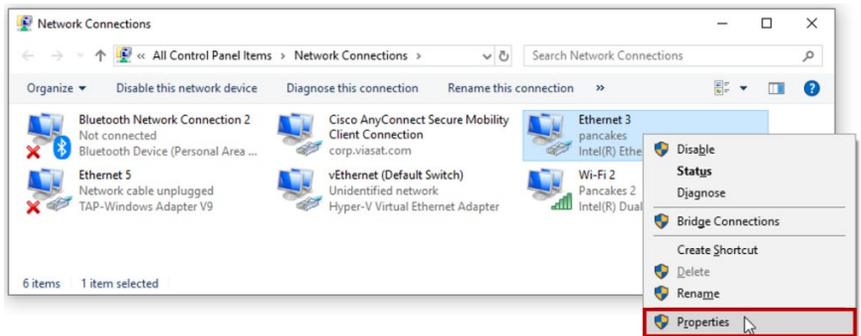
**\*Note – If staging more than one AP, this step only needs to be completed once. If this step has been completed, skip to step 26.**



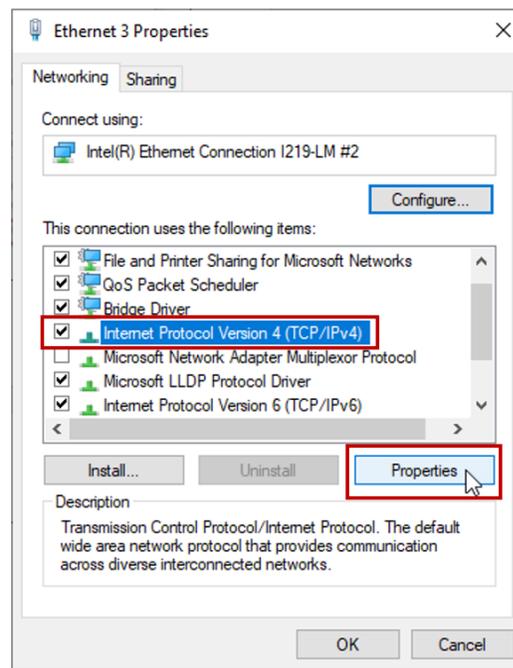
19. Click Change adapter settings/ options.



20. Right click the Ethernet connection that is plugged into the AP. Select "Properties."



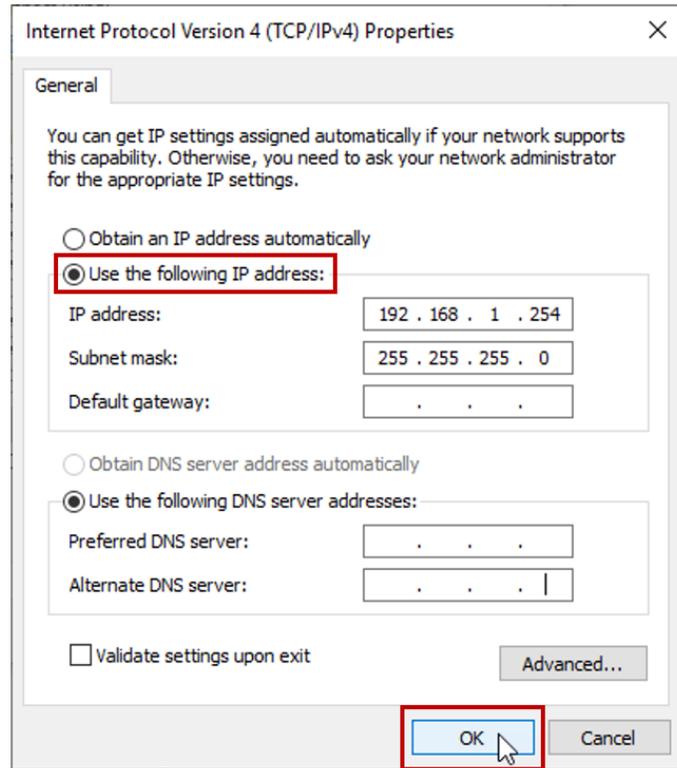
21. From the list of connection items, select Internet Protocol Version 4 (TCP/IPv4) and click Properties.



22. Select Use the following IP address and type the following:

IP address: 192.168.1.254  
Subnet mask: 255.255.255.0  
Default Gateway: Leave blank

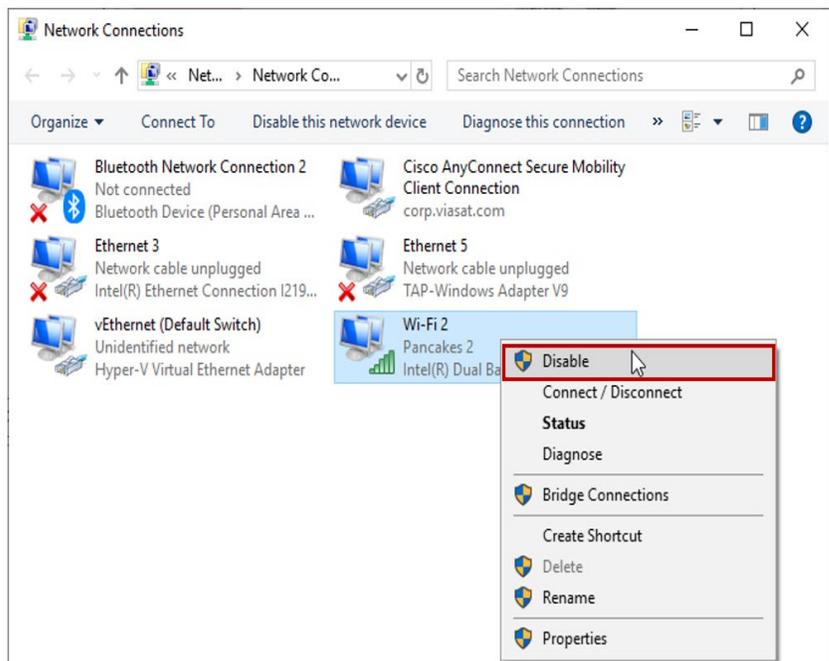
Click OK.

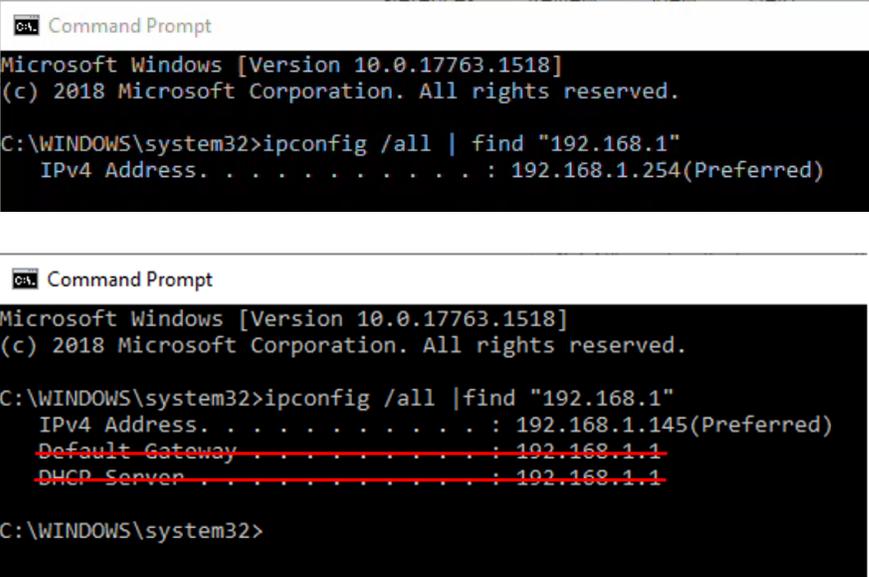
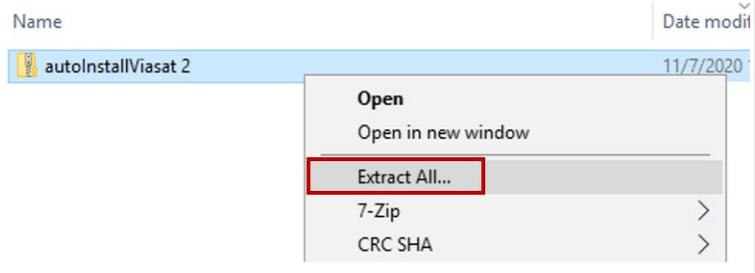
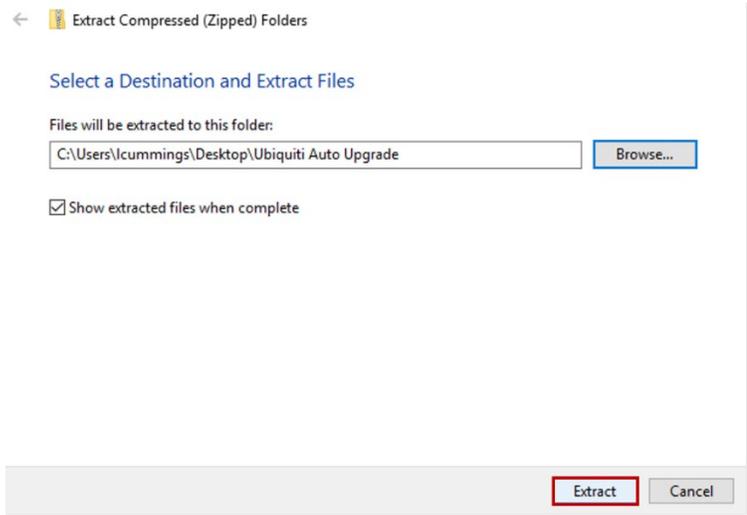


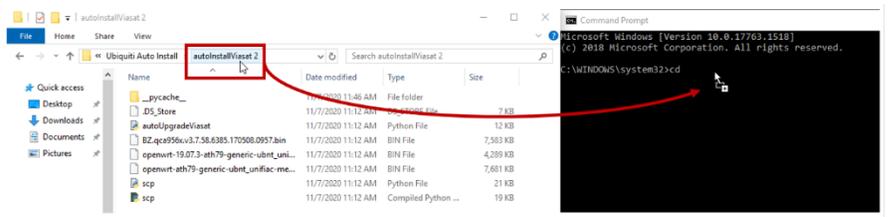
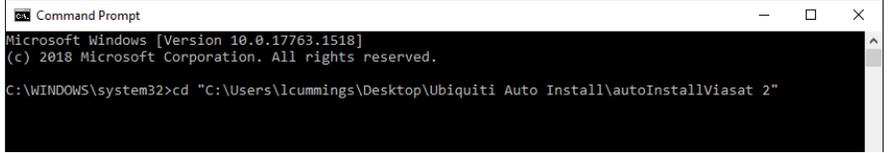
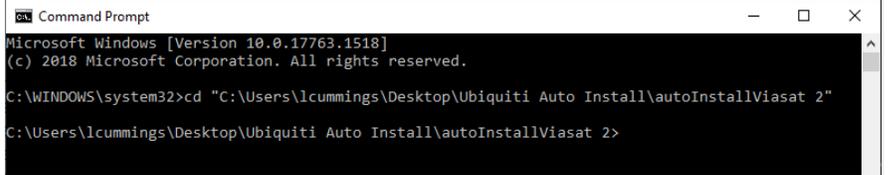
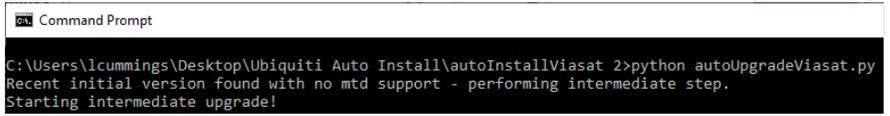
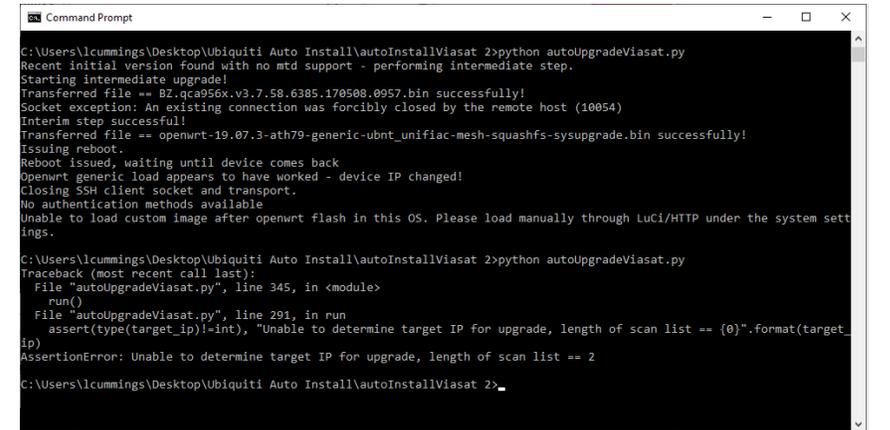
23. From the network and sharing center, disable all network adapters (including Wi-Fi) other than the Ethernet connection to the AP.

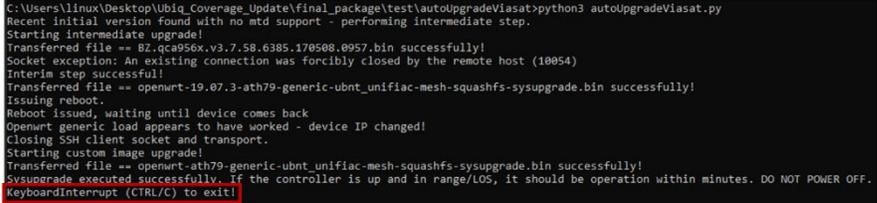
To turn off Wi-Fi, right click, then select Disable.

**WIFI MUST BE TURNED OFF OR THIS PROCEDURE WILL FAIL AND DEVICE COULD POTENTIALLY BE BRICKED**



<p>24.</p>	<p>To ensure that only the AP is connected, type <i>ipconfig /all   find "192.168.1"</i> then press enter.</p> <p>You should only see one connection (IPv4), as displayed here.</p> <p>If you see more than one connection (such as Default Gateway, DHCP Server), return to the previous step.</p> <p><b>NEVER PRESS THE ENTER KEY MORE THAN ONCE</b></p>	
<p>25.</p>	<p>Locate the <code>autoInstallViasat.zip</code> file on your computer. Right click the file and select Extract All.</p> <p>This file can be downloaded at <a href="https://eguide.field.viasat.com/staging-guide-ubiquiti-ap/">https://eguide.field.viasat.com/staging-guide-ubiquiti-ap/</a></p>	
<p>26.</p>	<p>Select a location for the extracted files and click Extract.</p>	

<p>27.</p>	<p>In command prompt, type <b>cd</b> and press the space bar (there must be a space after “cd”), then drag and drop the folder containing the extracted files into command prompt, then press enter.</p>	
<p>28.</p>	<p>Command prompt should now display the location of the extracted files. (Verify that command prompt looks like the example photo)</p>	
<p>29.</p>	<p>Press Enter.</p>	
<p>30.</p>	<p>Type <b>python autoUpgradeViasat.py</b> then press enter.</p> <p><i>Note – if you have more than one version of Python installed, you will need to type python3 autoUpgradeViasat.py</i></p>	
<p>31.</p>	<p>The install will begin. This will take 15 to 20 minutes to complete.</p> <p><b>*Note – It is important that the computer does not go to sleep during this time.</b></p>	

<p>32.</p>	<p>When the program displays <i>“KeyboardInterrupt”</i> (CTRL/C) to exit! the status light on the AP will begin flashing.</p> <p>If an error occurs and <i>“KeyboardInterrupt”</i> (CTRL/C) to exit! never appears, repeat step 29.</p>	 <pre> C:\Users\linux\Desktop\Ubiq_Coverage_Update\final_package\test\autoUpgradeViasat&gt;python3 autoUpgradeViasat.py Recent initial version found with no mtd support - performing intermediate step. Starting intermediate upgrade! Transferred file == BZ.qca956x.v3.7.58.6385.170508.0957.bin successfully! Socket exception: An existing connection was forcibly closed by the remote host (10054) Interim step successful! Transferred file == openwrt-19.07.3-ath79-generic-ubnt_unifiac-mesh-squashfs-sysupgrade.bin successfully! Issuing reboot. Reboot issued, waiting until device comes back Openwrt generic load appears to have worked - device IP changed! Closing SSH client socket and transport. Starting custom image upgrade! Transferred file == openwrt-ath79-generic-ubnt_unifiac-mesh-squashfs-sysupgrade.bin successfully! Sysupgrade executed successfully. If the controller is up and in range/LOS, it should be operation within minutes. DO NOT POWER OFF. KeyboardInterrupt (CTRL/C) to exit!                     </pre>
<p>33.</p>	<p>Wait until the status light <b>stops flashing and turns solid blue</b>. This may take 5 to 10 minutes.</p> <p>After this, the install is complete and the AP can be disconnected.</p>	