Chapter 11 Pre-task 4, Cisco Wireless LAN Controller (vWLC) VM Creation on VMware ESXi 7.0.3

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Version:	1.0
Created on:	31/May/2023
Download URL:	https://github.com/ansnetauto/appress_ansnetauto

About this document:

Welcome to the software installation guide for the Apress book, "***Introduction to Ansible Network Automation: The Practical Primer***" This guide has been created by the authors as supplementary material to the book, but it is not part of the actual book itself. ***The content has been borrowed from the prequel book, "Introduction to Python Network Automation: The First Journey" written by Brendan Choi in 2021***. Its purpose is to provide clear and concise instructions to assist readers in installing the necessary software required to follow the examples and exercises.

By following the steps outlined in this guide, you will be able to set up the required software for Ansible/Python network automation and begin exploring the concepts while engaging in the practical exercises covered in the book. Please note that this guide is not intended to serve as a comprehensive resource on network automation or Ansible, but rather as a focused guide designed to help you get started quickly and easily.

If you encounter any questions or issues during the installation process, please do not hesitate to reach out to the authors or refer to the resources listed in the guide. We hope this guide proves helpful in your journey towards mastering Ansible/Python network automation.

What's required?

Host OS:	Windows 11
Hypervisor:	VMware ESXi 7.0.3 or newer, or Any Public Cloud Computing Platform
File name:	AIR_CTVM-K9_8_8_130_0.ova (357.71 MB) (MD5: 2e3754fb18230b897fe4074c60028944)
Internet connection:	Yes

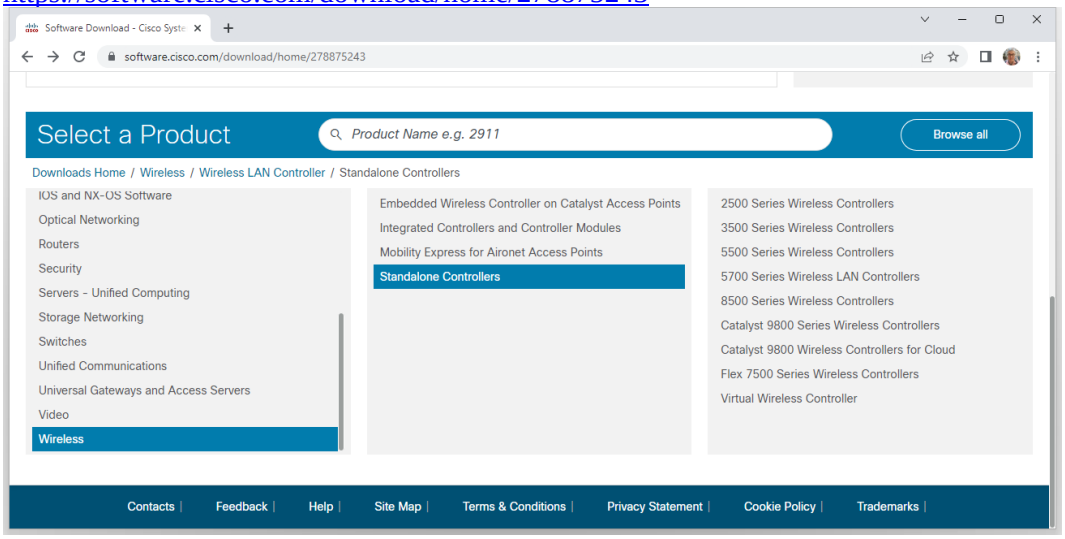
Warning! The software used in this guide may include a combination of open-source and proprietary software. Readers can search for most of the open-source software on the internet. However, the authors are unable to legally provide the proprietary software. Please ensure that you acquire the proprietary software through authorized channels.

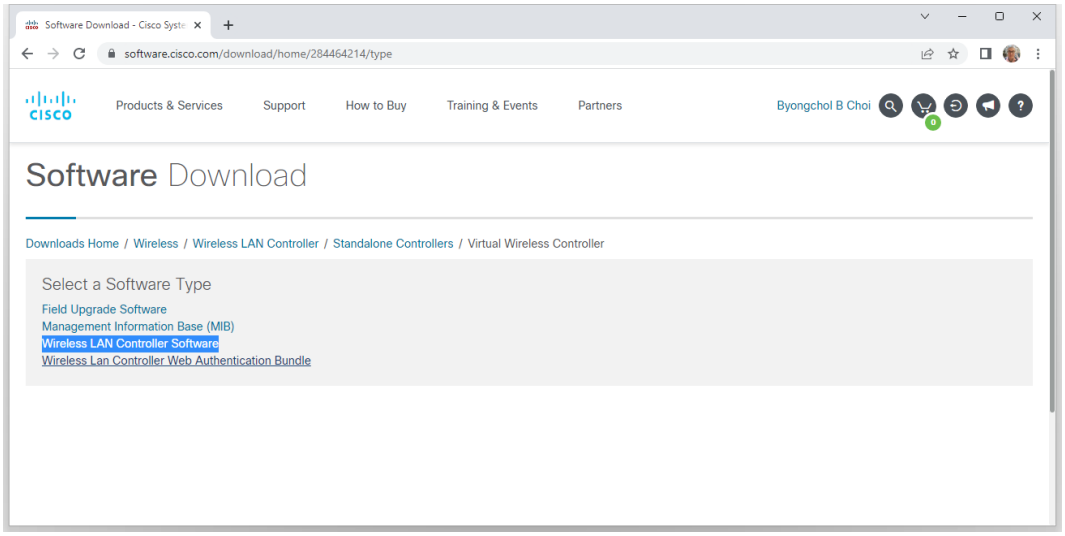
Installation Steps:

Here are the steps to create virtual Wireless LAN Controller (WLC) using VMware vSphere 7.0.3. If you are installing the vWLC on other platforms, please use this guide as a reference point. Please follow along to get a working vWLC online.

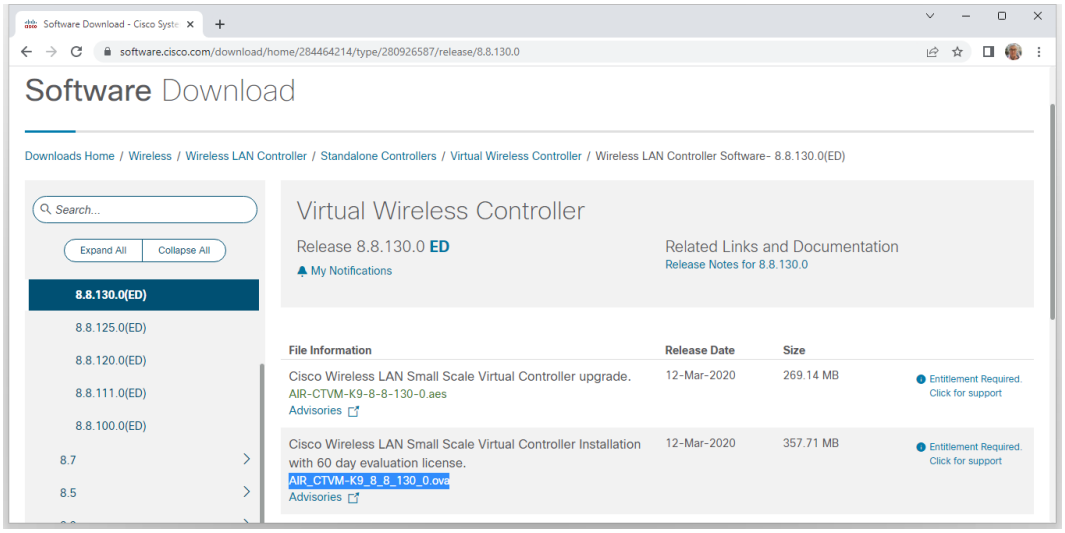
1. First, download the AIR_CTVM-K9_8_8_130_0.ova file from the Cisco Product download page. You will require a Cisco Login ID as well as a valid contract to download the latest version of Cisco virtual WLC images. We will be downloading an older version of vWLC image, so we can do the upgrade testing to the newst version. For a new creation of vWLC VM, you have to use the .ova file but for an upgrade, you use the .aes file. We will discuss about this in details in Chapter 16 of the book.

   https://software.cisco.com/download/home
   https://software.cisco.com/download/home/278875243

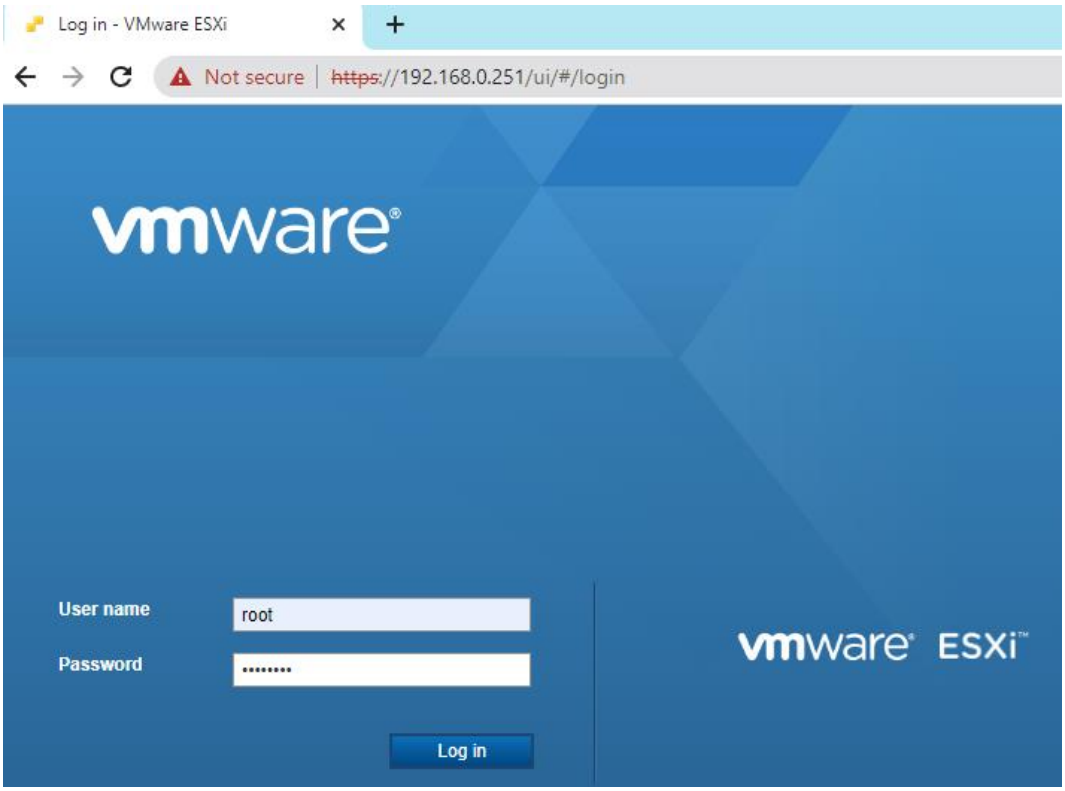


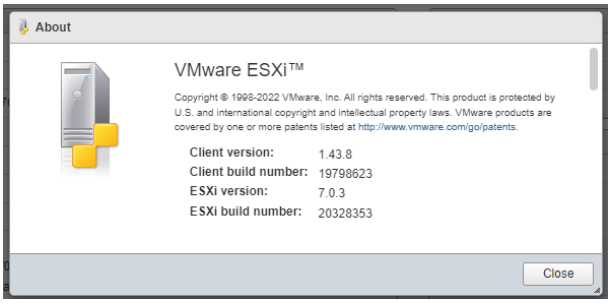


If you want to download the same version of the software, click here.
https://software.cisco.com/download/home/284464214/type/280926587/release/8.8.130.0



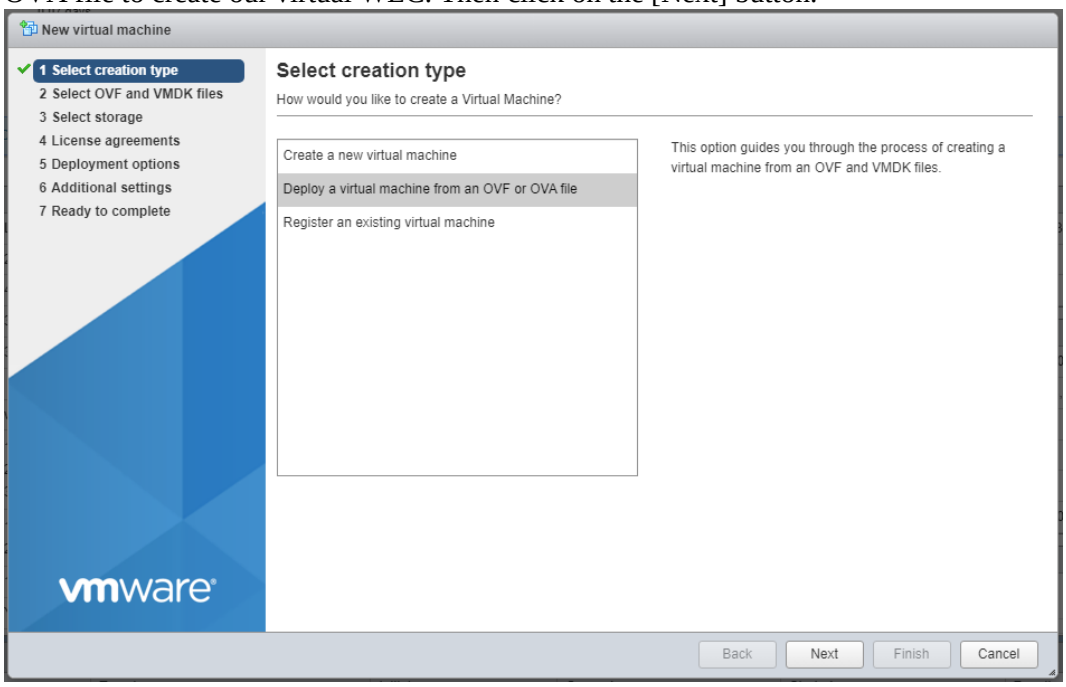
2. Open your ESXi 7.0.3 server from your favourite Web Browser. Our ESXi server's ip is 192.168.0.251, but yours might be different. Although, I have a working vCenter and create my virtual WLC there, I will use the native ESXi 7.0.3 interface to crete a new vWLC from the ESXi interface itself.



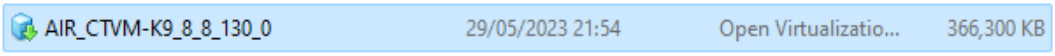


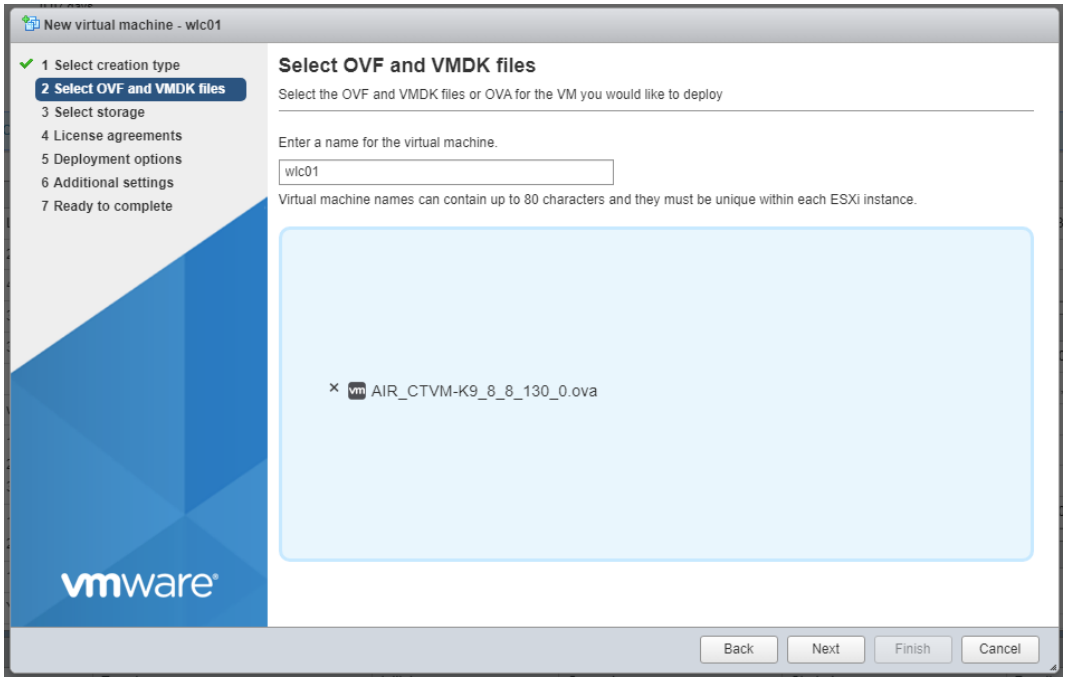
3. Click on the Create/Register VM icon on the top of the page.

4. Select Deploy a virtual machin from an OVF or OVA file. We will be using the downloaded OVA file to create our virtual WLC. Then click on the [Next] button.

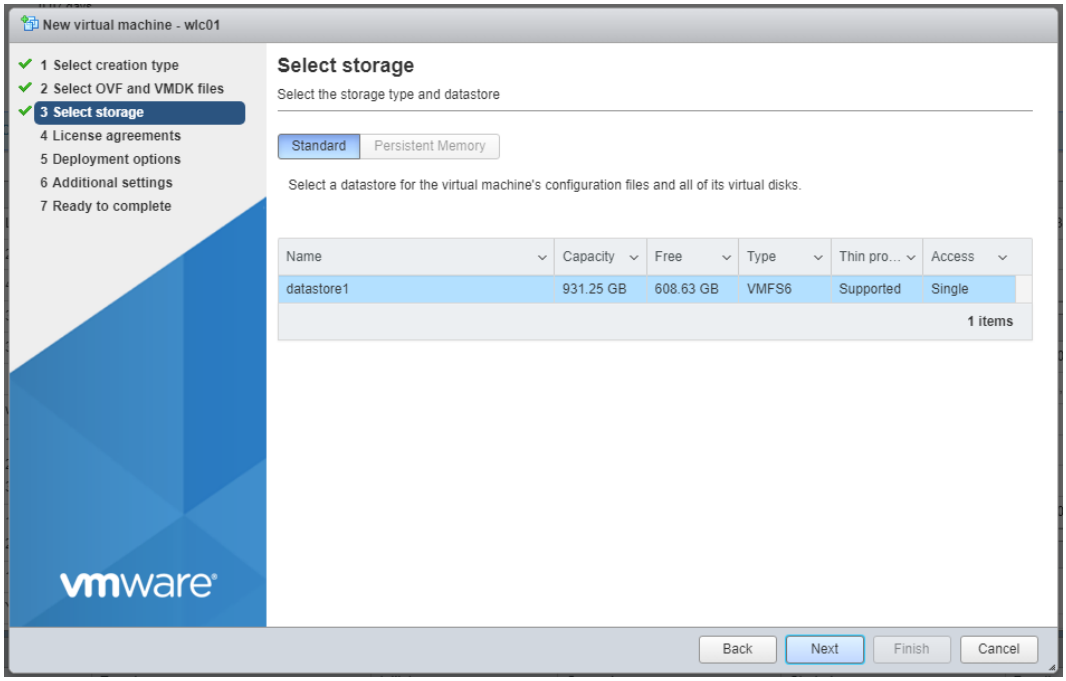


5. Give your new vWLC a name and drag-n-drop AIR_CTVM-K9_8_8_130_0.ova file. We are using a generic name wlc01 here but you can change this to your taste. Click on the [Next] button.

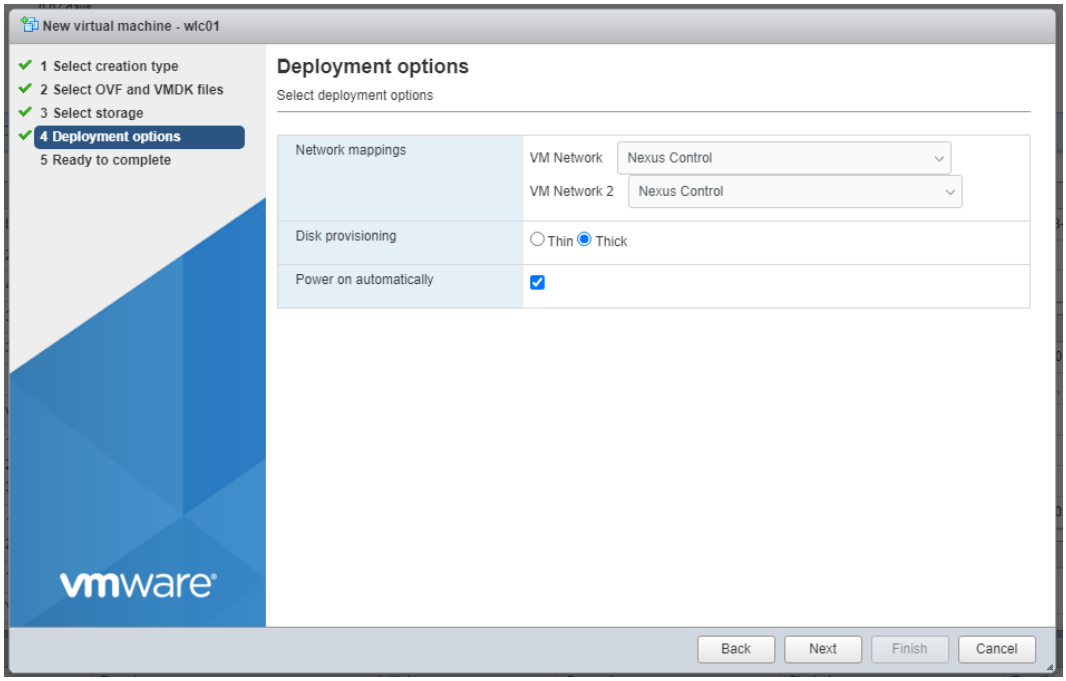




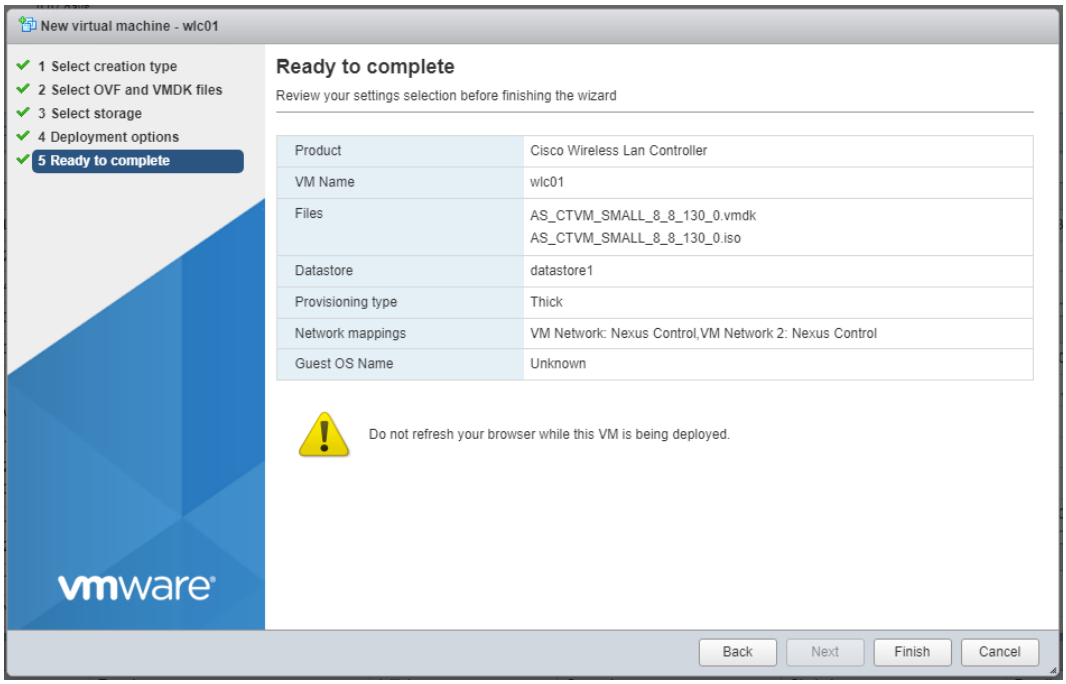
6. Select your datastore to install your virtual machine (wlc01), and click on the [Next] button one more time.



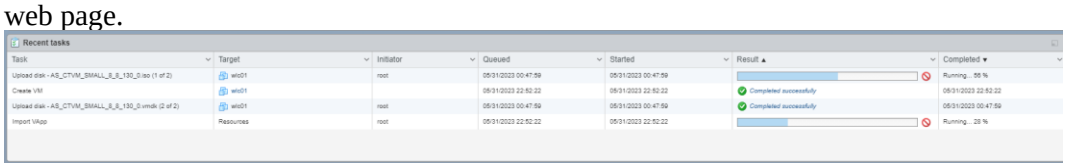
7. Since the hardware requirement for this ova file is only 8GB, we will select the Thick Disk provisioning. Leave the Power on automatically checked and click on the [Next] button.



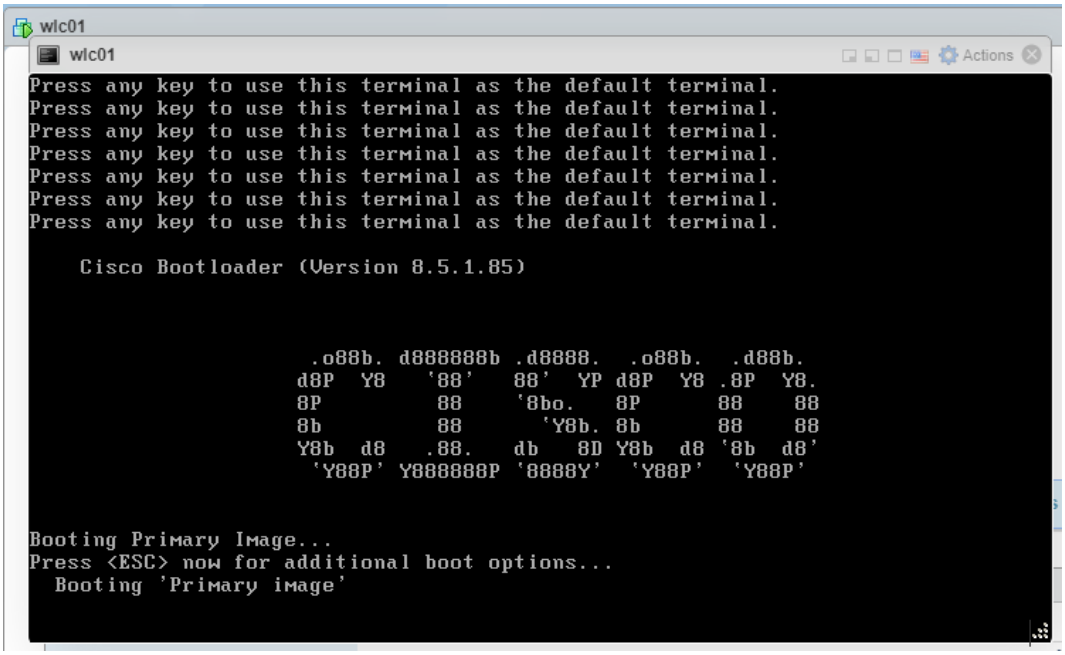
8. Once you are happy with the configuration settings, click on the [Finish] button to start the virtual WLC creation.



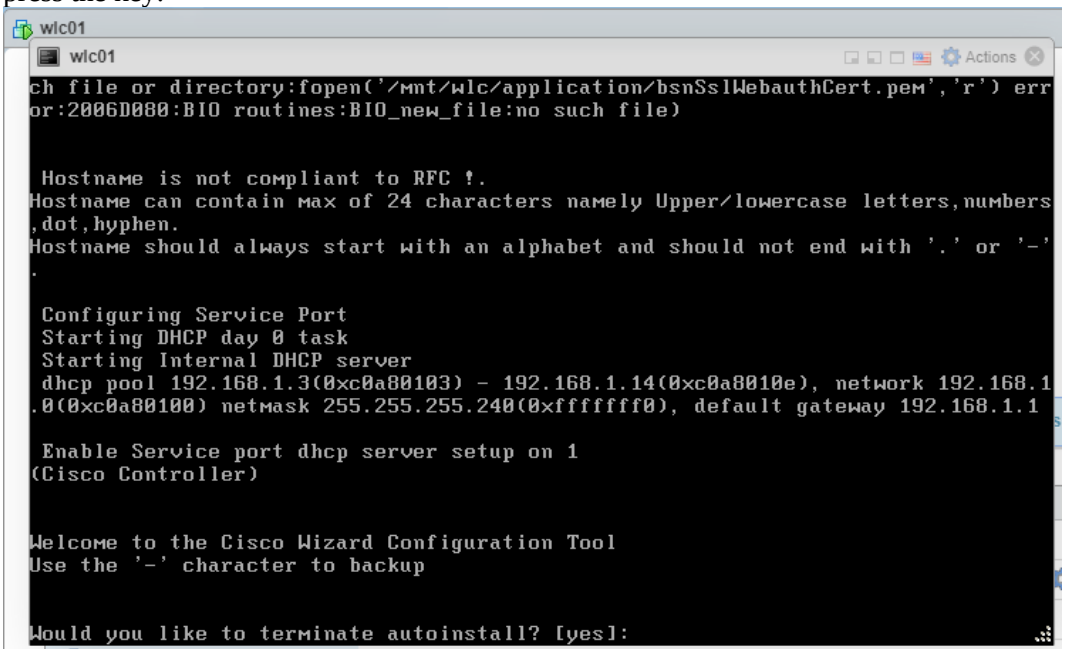
9. You will see the virtual machine creation from the Recent tasks window at the bottom of the web page.



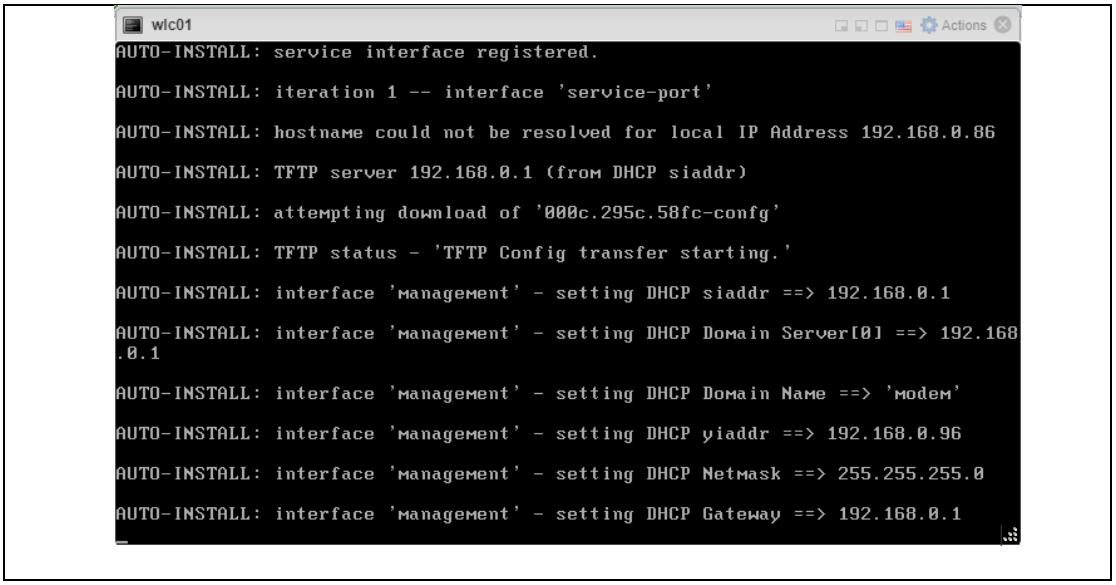
10. Make sure you press a key before the initial terminal times out. Annoyingly, you are only given a few seconds to catch the terminal.



11. Press [Enter] key or type yes and then press the [Enter] key to move to the manual configuration mode. You have to press the key quickly as it only give you a few seconds to press the key.

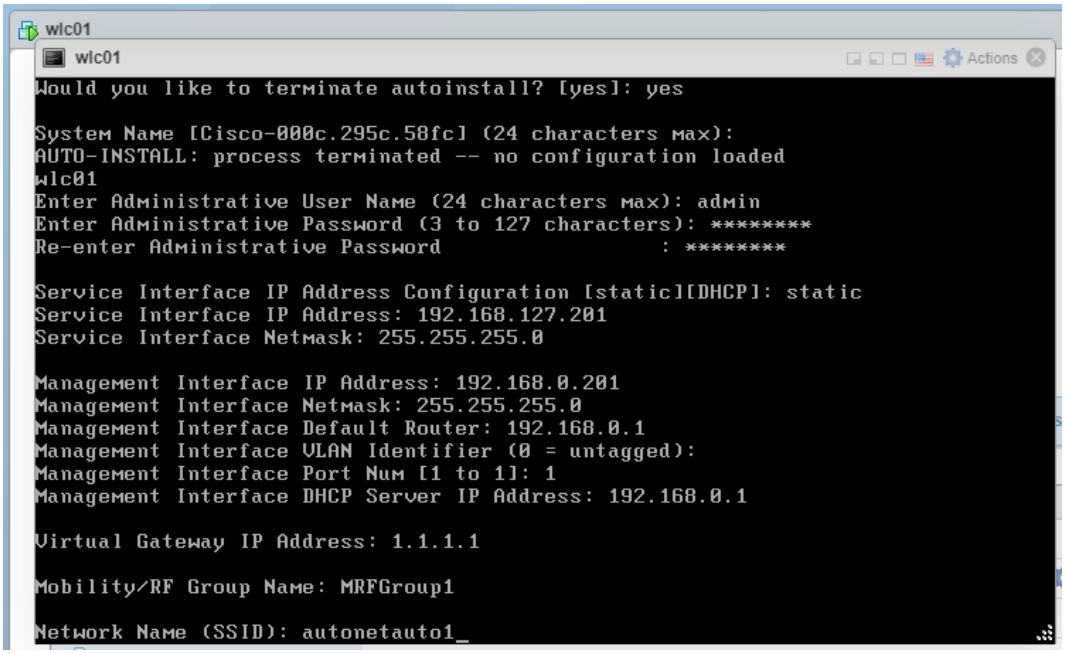


WARNING! If you don't press the [Enter] key in time, the installation will default to the DHCP and will attempt an AUTO-INSTALL. If you have a configuration file on TFTP server, auto-install is a great idea but we want to assign a specific IP address for the mangement interface, so, we will choose the manual method.

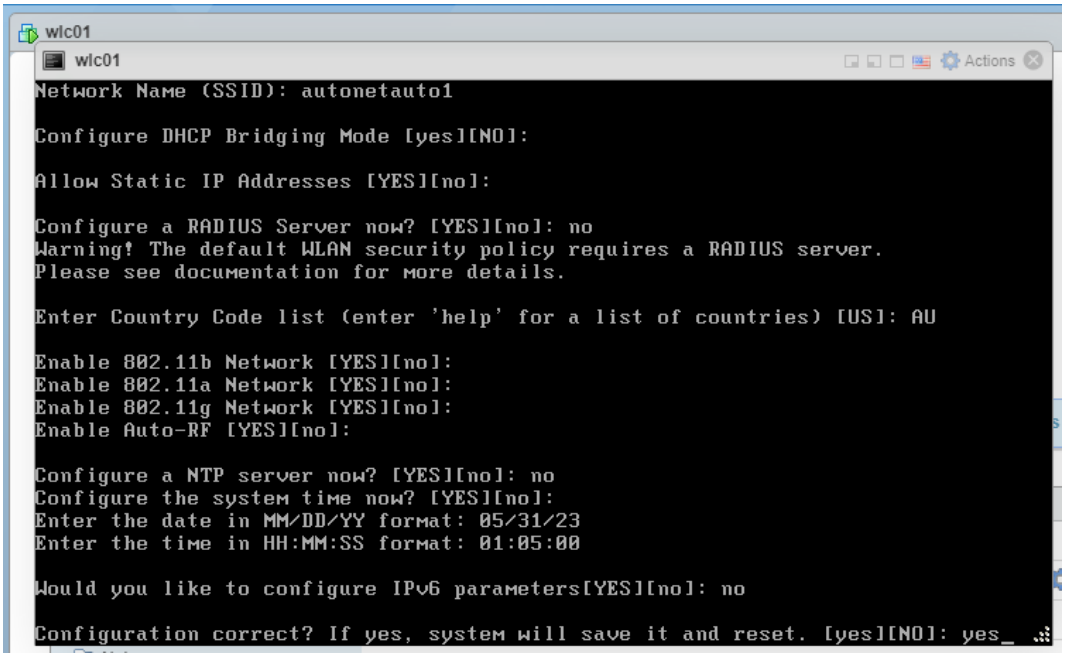


12. The following information has been used to make the IP Address static and also assign the hostname, admin username and password:

    WLC name: **wlc01**
    Username: **admin**
    Password: S**uper5cret9assw0rd** <<< Meet minimum requirements
    Management interface: **Management interface**
    Mgt interface IP: **192.168.0.201/24** <<< Same subnet as others
    Default Gateway: **192.168.0.1**
    DHCP IP: 192.168.0.1
    Service interface IP: 192.168.127.201/24 <<< This is only a placeholder configuration.

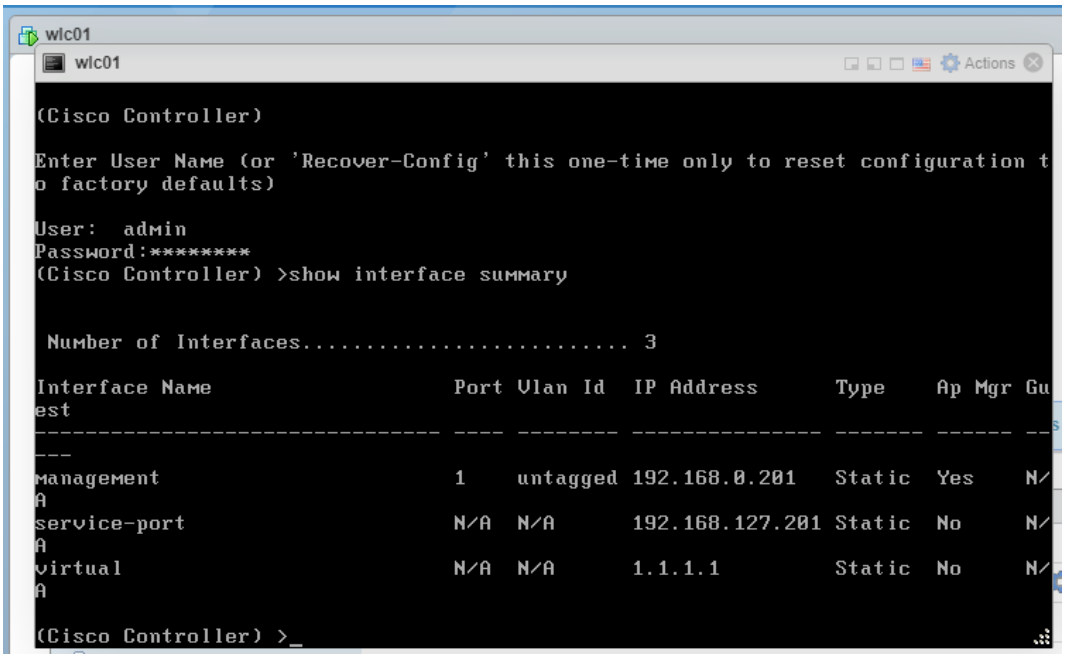


13. Refer to the screenshot below and carefully configure the intial configuration.

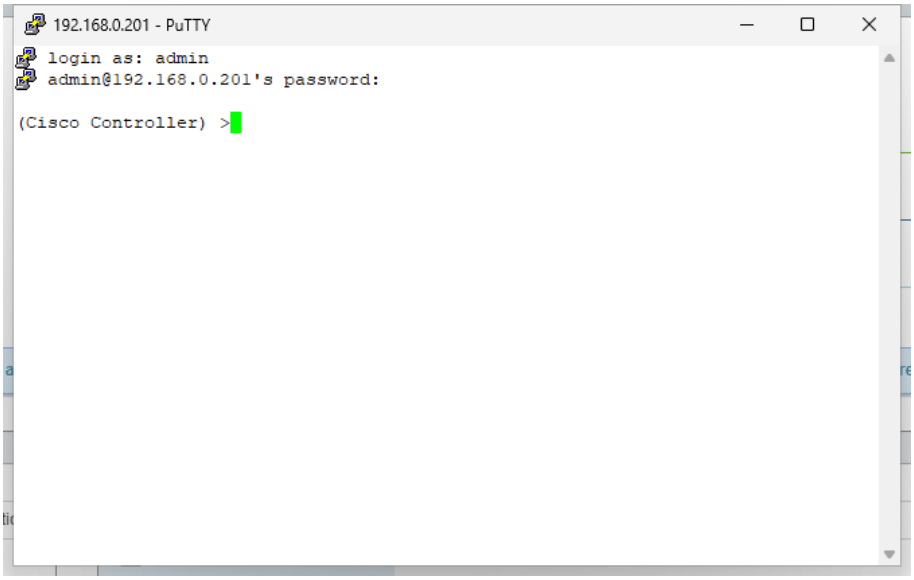


14. After the system reboots, you will be prompted to login. Use the username and password to login and run some commands to check the network settings.

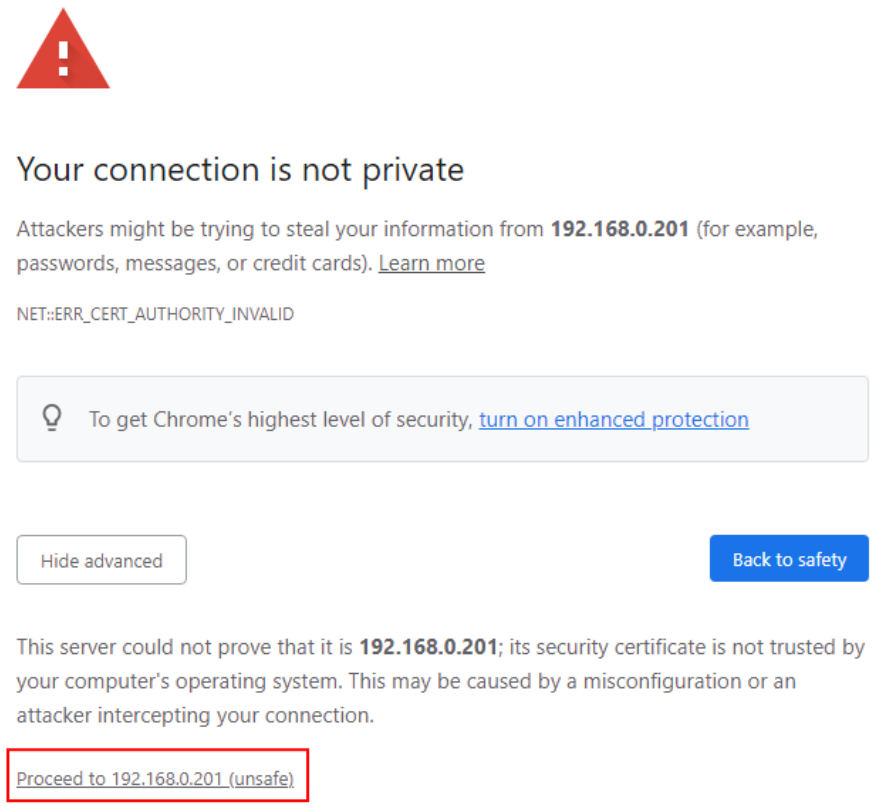
    - show interface summary
    - show network summary
    - show interface detailed management
    - show interface detailed service-port
    - show interface detailed virtual



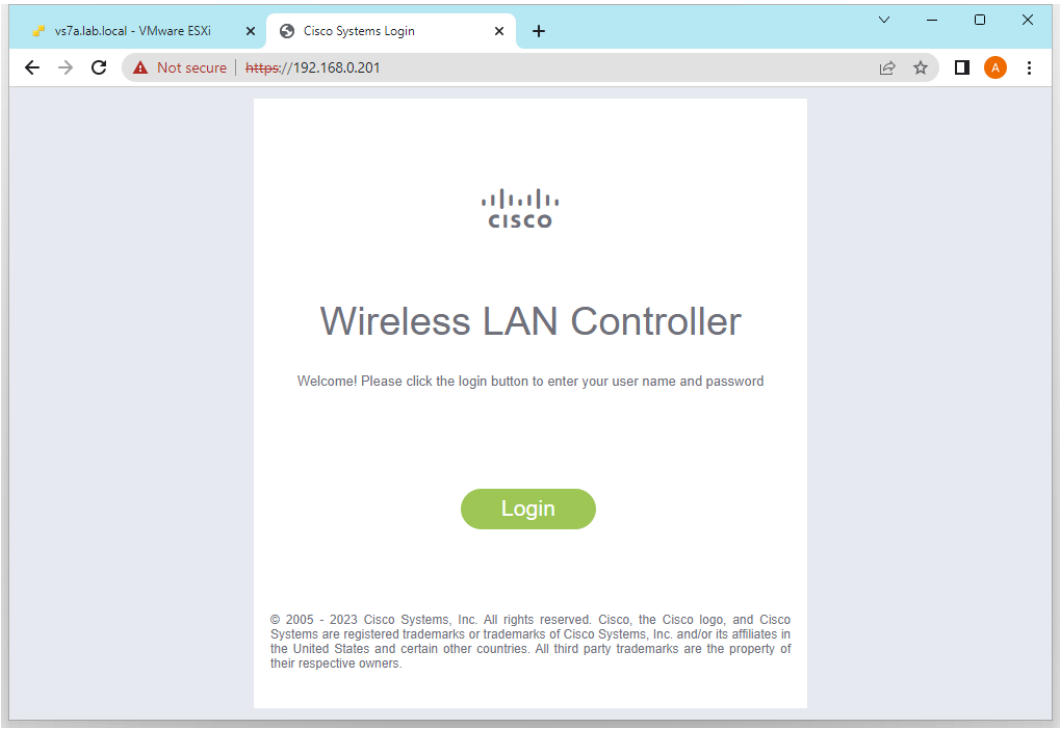
15. Use PuTTY to log into your vWLC and make sure that you can log into the vWLC via SSH.



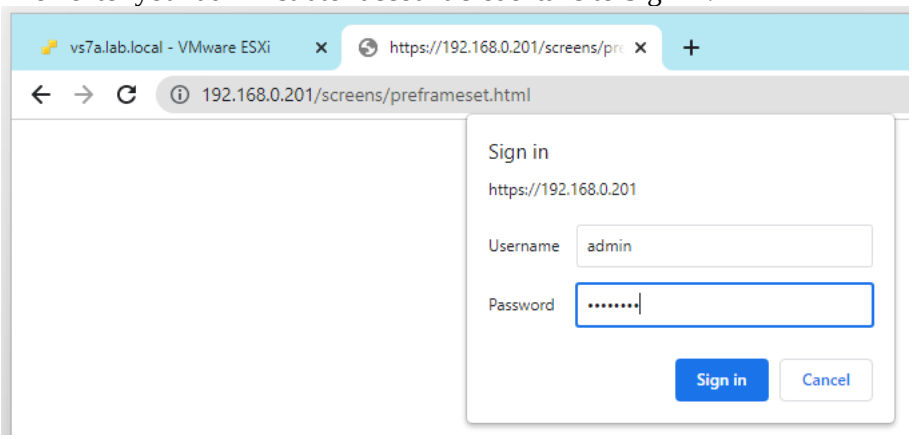
16. Use your Web Browser to open the vWLC web page, our configured management address was 192.168.0.201, so open https://192.168.0.201/ page. Accept the risk and proceed to the next page.



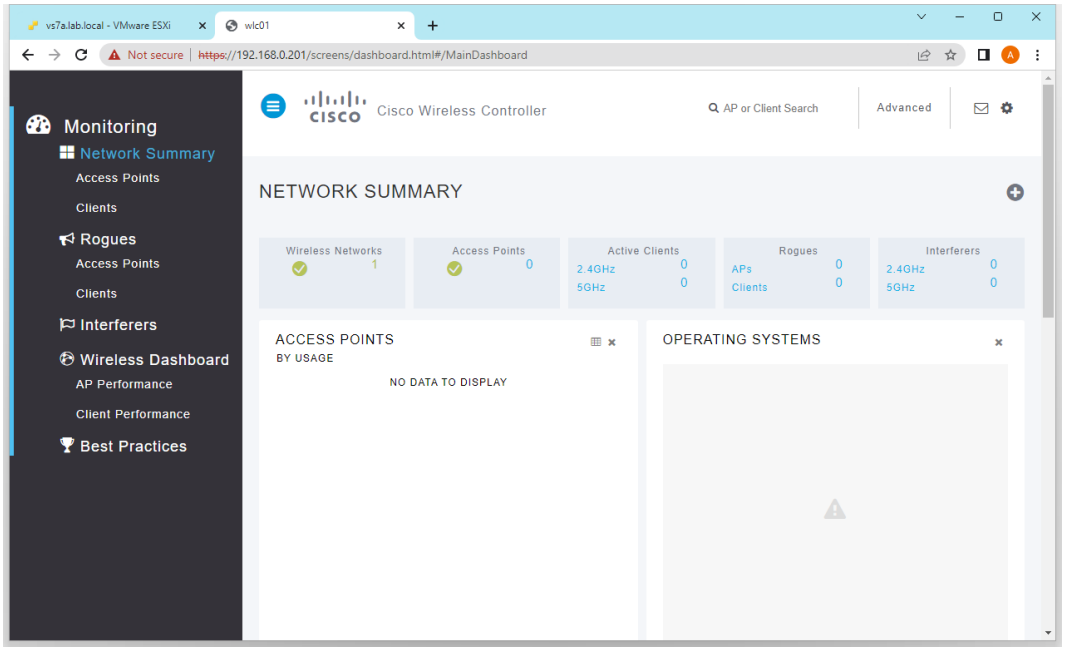
17. Wahla! You are taken to the Welcome page to log in for the first time. Click on the Login button on the Wireless LAN Controller login page.



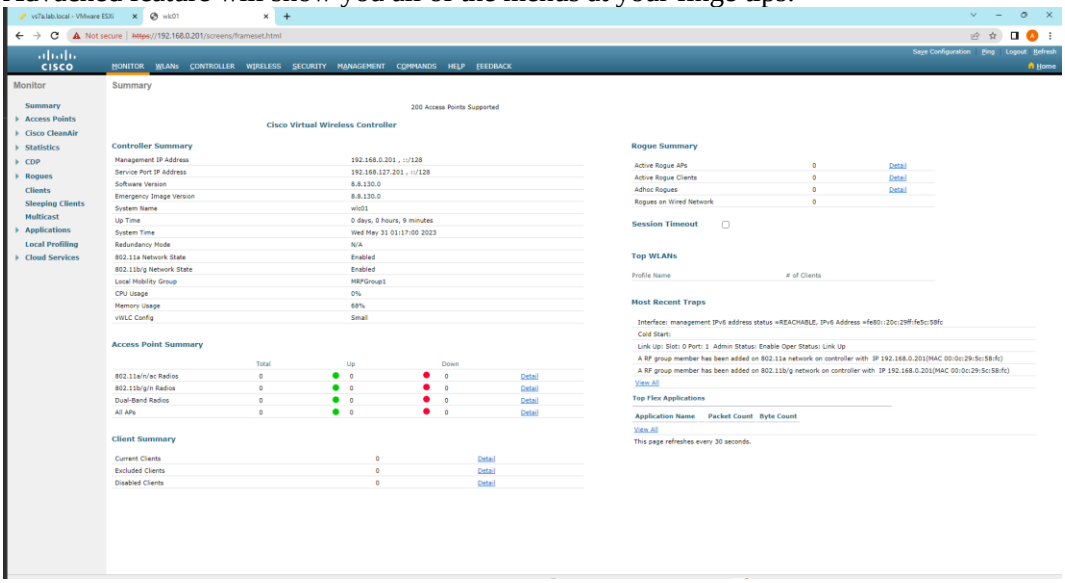
Then enter your administrator account credentails to Sign in.



18. Check the page and click on the Advanced menu on the right top corner of the page.



Advacned feature will show you all of the menus at your finge tips.



You now have a working vWLC for your testing, if you have not taken a snapshop of the current device state, make sure you take a snapshot and power it down for now, so we can write some playbook to upgrade the software to a newer version. The upgrading process is part of the actual book and you can pick this up again from the book. Now you have completed the vWLC installation and preparation for Ansible testings.