SWG:PE BAREMETAL ALMALINUX 8.6
& SWG SERVER SETUP GUIDE

In this guide we will install a AlmaLinix 8.6 OS and compile a SWG server using the methods from other guides.

DO OR
DO NOT.

THERE IS
NO TRY.

Yoda.

Disclaimer:

I DO NOT CLAIM ANY OF THE CONTENT IN THIS GUIDE !
That right belongs to the original content creators.
I only rewrote it from my perspective.
All credits are mentioned on Page #1 of the enclosed guide.

Guide Reimagined By
SWG:PE Dev.ForsakenReaper

This guide came from learning how to setup baremetal machine based on the guide from Tekohswg that was modified by RezecNoble (source:https://github.com/SWGEvolve/swg-prepare). Some information in this guide came from this original document. All credits go to them for the information ive used to make this guide. Im only translating this into a new indepth guide for the almalinux 8.6 machine setup part of that guide from start to finish.

TY to Tekohswg & RezecNoble along with the SWGSource community (https://discord.gg/YyqABFJYnR) for all your knowledge that goes into this guide.

Preperation: For Baremetal Install.

-     I Assuming you have your machine ready to install a Linux OS (Operating System) .   -
-     Assembly of the preperation for this server was done from Windows 11 Home 64bit to a HP DL360p gen8   -
-     Rackmount.   -
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(1) Download AlmaLinux 8.6 from https://mirrors.almalinux.org/isos/x86_64/8.6.html
    - Choose a mirror then select (AlmaLinux-8.6-x86_64-dvd.iso) link.
    - You will begin to download AlmaLinux-8.6-x86_64-dvd.iso to where ever you set your
      browser to download files to.

(2) Download Rufus 3.21 from https://rufus.ie/en/
    - You will begin to download rufus-3.21.exe to where ever you set your
      browser to download files to.
    - This is the tool I use to make a bootable/mountable usbdrive to install OS's.
    - You may replace this step with your tool of choice but due to the Vastness of tools used to burn iso's
    - I will only be covering Rufus in this tutorial.

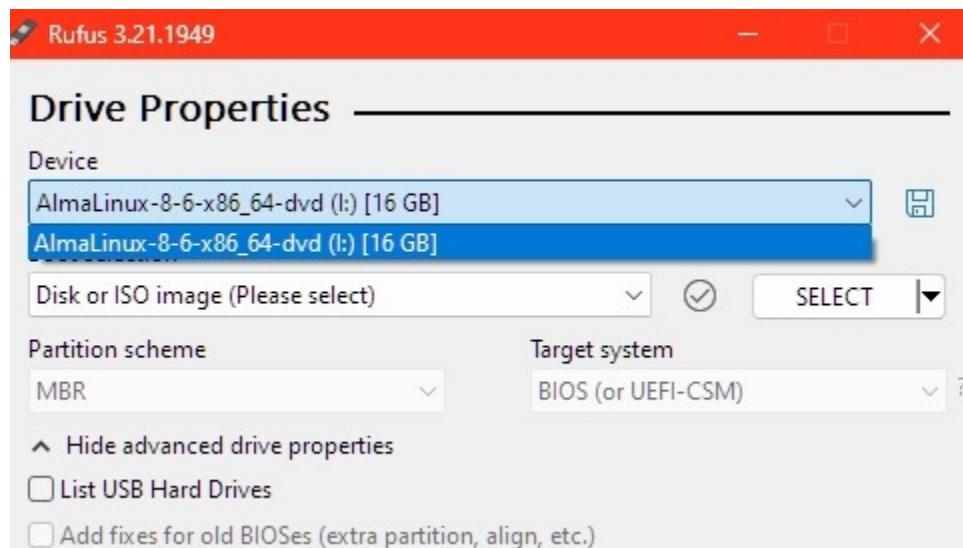(3) Insert A USB Drive of no less than 16GB.

Installing Rufus:
(4) Right Click on the rufus-3.21.exe and Run As Administrator.
    - A UAC (User Account Control) window will pop up and ask Do you want to allow this app to make changes to your
      device ?
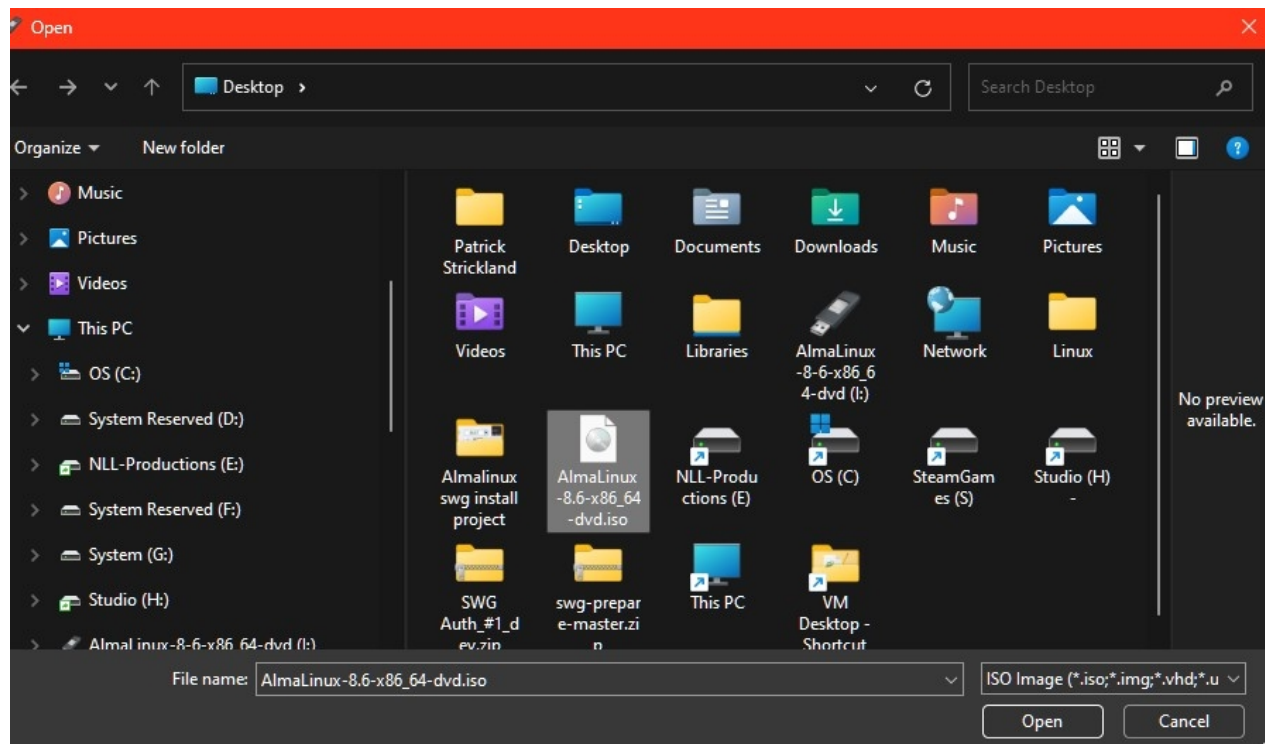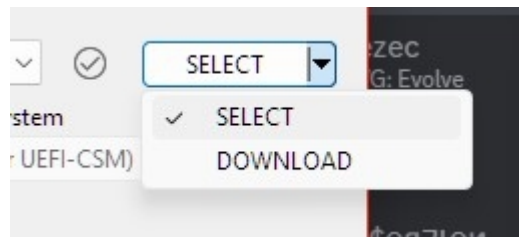   - Choose yes and now rufus will open up.
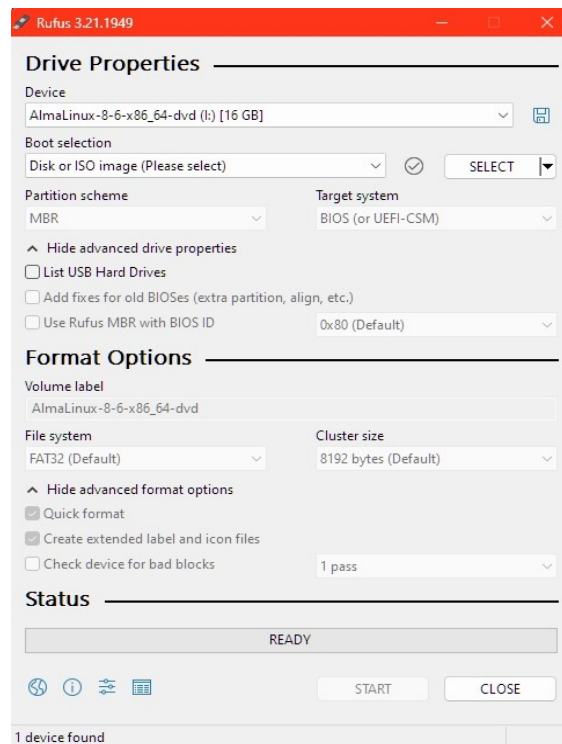
(5) Make sure you have your USB drive selected in drop down menu under DEVICE.

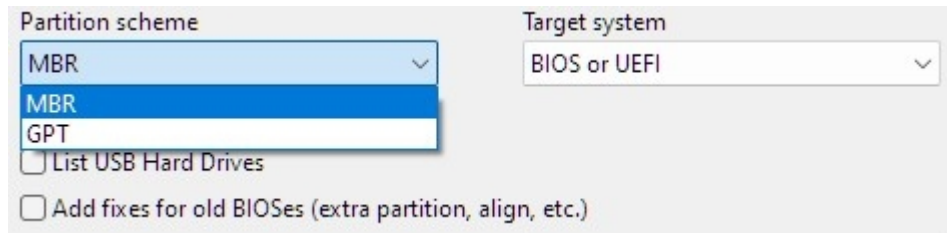(6) Under (Boot selection) make sure you have (Disk or ISO image) selected.

(7) Next click on the (SELECT) box and navigate to you Almalinux Iso(AlmaLinux-8.6-x86_64-dvd.iso) you downloaded earlier.
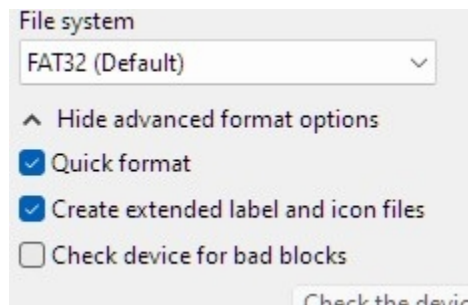
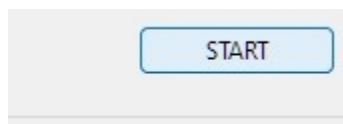(8) You should now see AlmaLinux-8.6-x86_64-dvd.iso in the (Boot selection) window.

Boot selection

AlmaLinux-8.6-x86_64-dvd.iso

Persistent partition size
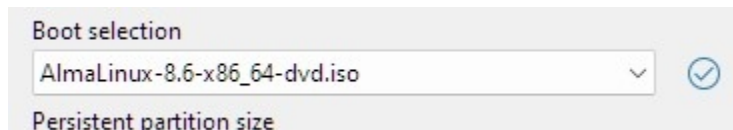
(9) We now want to look under (Partition scheme) and set the partition to (MBR) and (Target system) to (BIOS or UEFI).

Partition scheme

MBR

MBR
GPT
List USB Hard Drives

Add fixes for old BIOSes (extra partition, align, etc.)
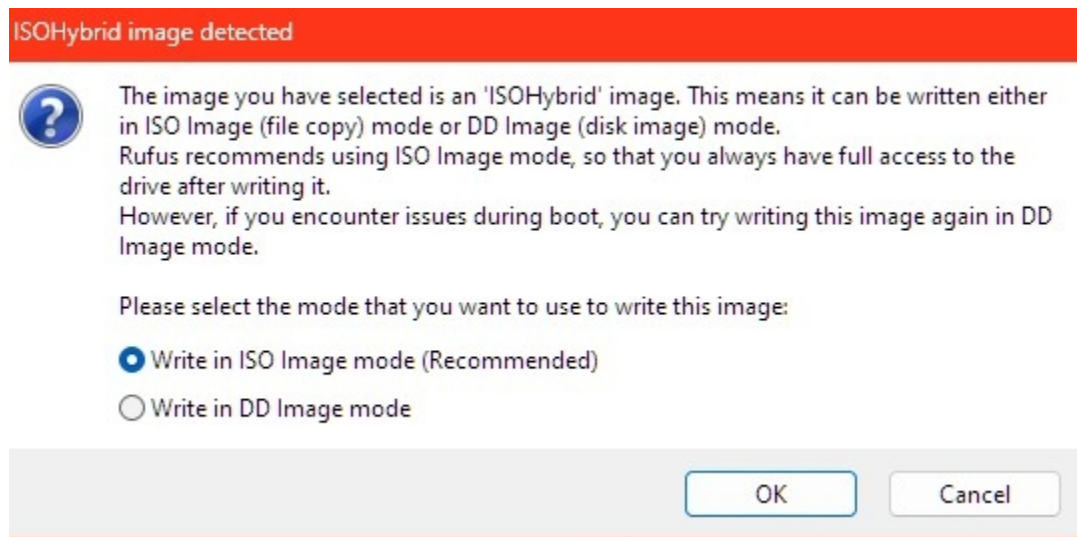
Target system

BIOS or UEFI

(10) Under (Format Options) Section we want to change (File system) to (FAT32) and make sure (Quick format) checkbox
is selected, and the (Create extended label and icon files) checkbox is selected.

File system

FAT32 (Default)

⌃ Hide advanced format options

☑ Quick format

☑ Create extended label and icon files

☐ Check device for bad blocks

Check the devic

(11) Next click on (START) at the bottom.

START

(12) A window will pop up asking which mode you want to use to write the image. Select (Write in ISO Image mode), and
click (OK) .

ISOHybrid image detected

The image you have selected is an 'ISOHybrid' image. This means it can be written either
in ISO Image (file copy) mode or DD Image (disk image) mode.
Rufus recommends using ISO Image mode, so that you always have full access to the
drive after writing it.
However, if you encounter issues during boot, you can try writing this image again in DD
Image mode.

Please select the mode that you want to use to write this image:

● Write in ISO Image mode (Recommended)

○ Write in DD Image mode

OK   Cancel

(13) Another window will pop up asking if you want to erase all data on the usb drive click (OK).
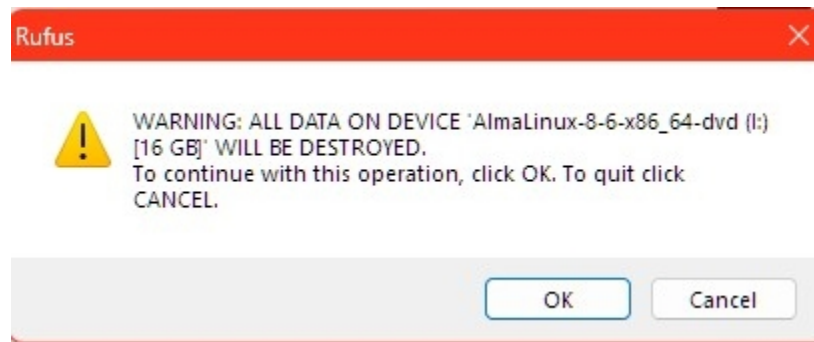
(14) Rufus will now start copying your AlmaLinux OS onto the USB Drive. This process take a while to complete and is very slow so be patient… mine takes around 30 mins on a 10th gen intel with 48GB ram to give you any idea.
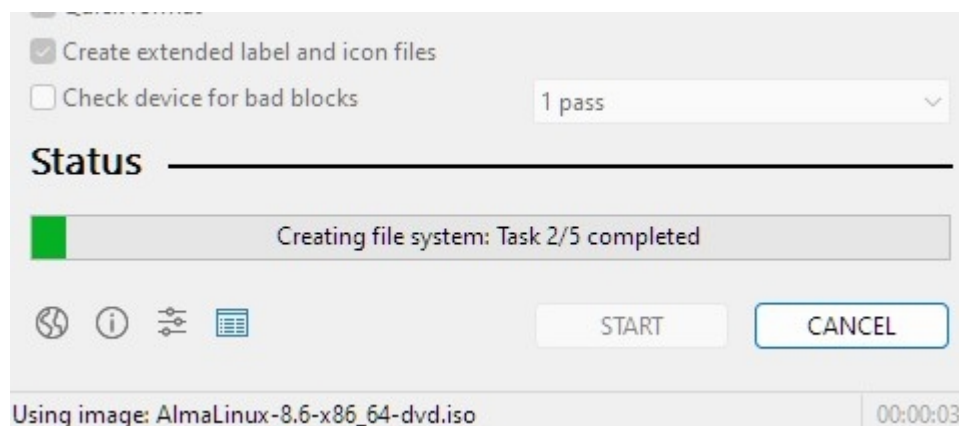
(15) When its finished … it will say (READY) in the green bar at the bottom of Rufus.
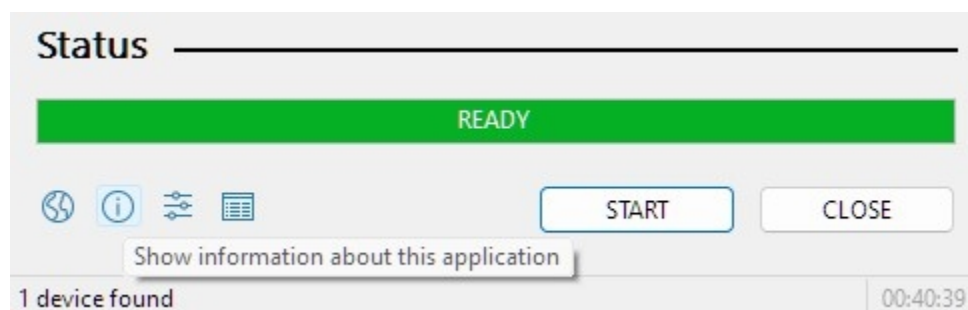
(16) We are now ready to start our install of AlmaLinux 8.6 onto our hHP DL360p GEN 8. If you know how to install linux you may skip this part just make sure you install with user (swg) and any password you choose make it secure !

   - We will meet you at Step (35). Most builds are similar except the rackmount part but for the purpose of this guide we will be showing our build on our rackmount.

(17) Take Out USB stick and place into you Host Machine in which you will install the OS with the machine off.
Turn on your machine and acces the boot menu for your type of machine to manualy boot from the USB drive …

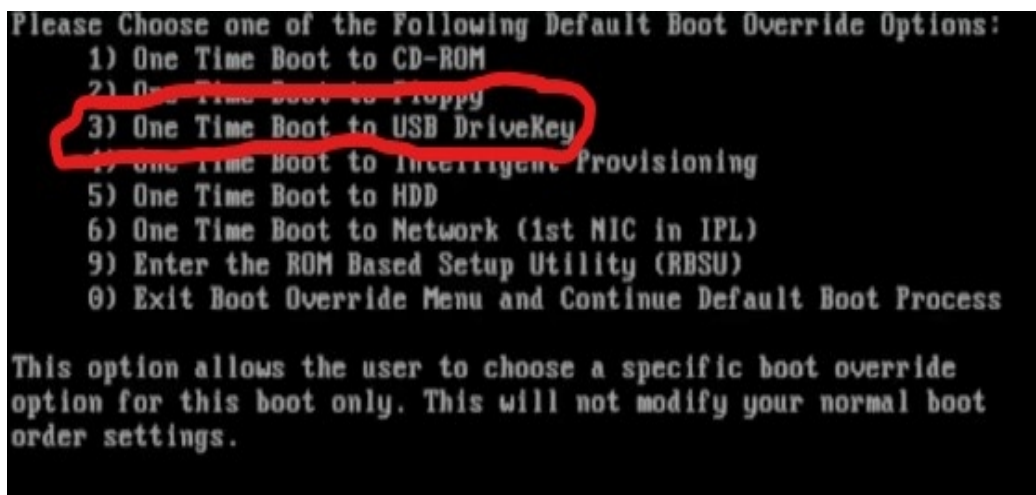## *INSTALLING ALMALINUX 8.6 ON YOUR HOST MACHINE :*

(18) After you power on your machine.You will need to grab the boot menu option if you have one and boot your USB drive.
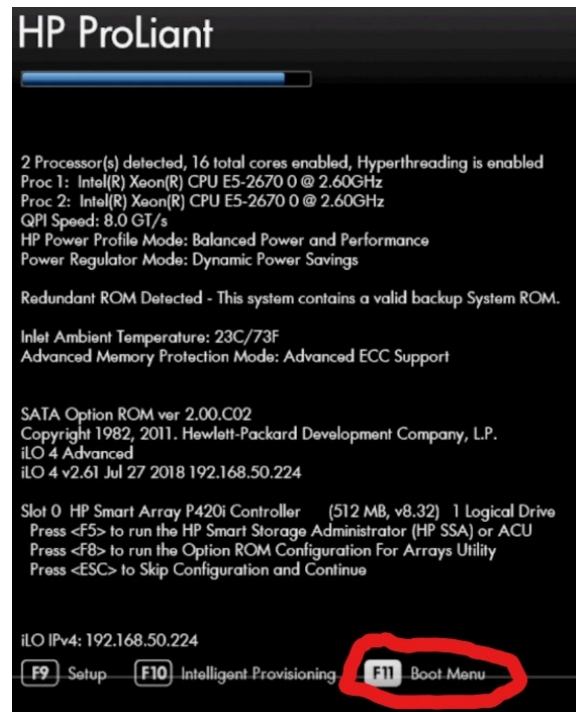

(19) Select your boot device.for me it was num 3.

(20) Next Alma Linux will boot to the install selection screen. Be sure to select install almalinux – you may test and install if you are not sure if linux will run on your system.
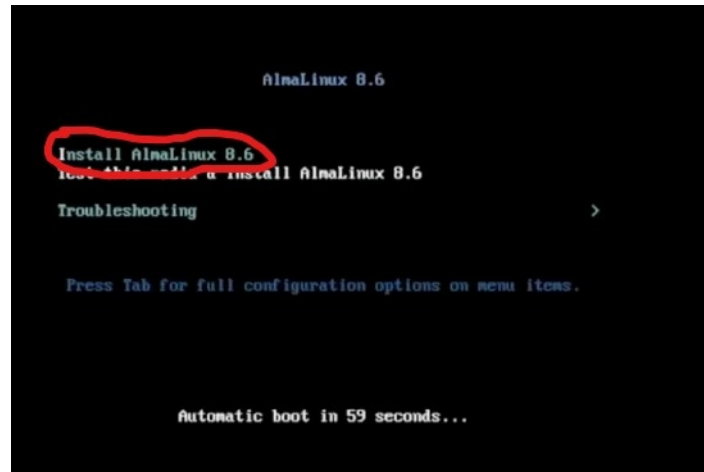

(21) AlmaLinux will now install the installation setup. When its finished it will open up the install screen.
 -From here we want to edit 3 things(**Installation Destination,Root Password,and User Creation**) circled in red.
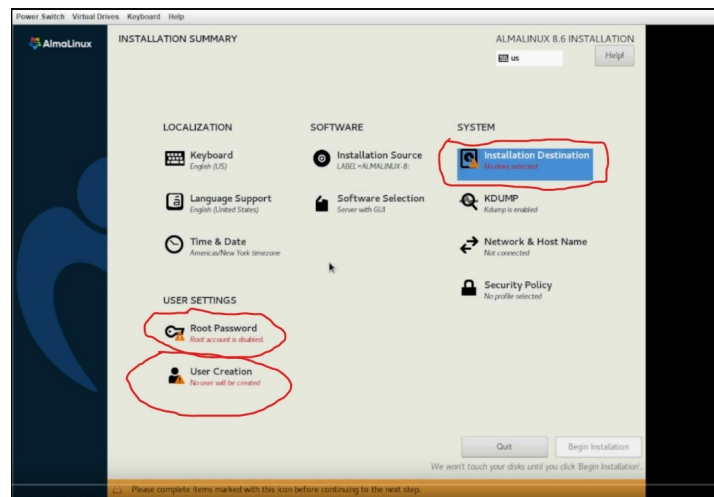
(22) For the first thing (**Installation Destination)** we want to wipe our harddrives and install a new OS.
  - To accomplish this we must click on (Installation Destination)
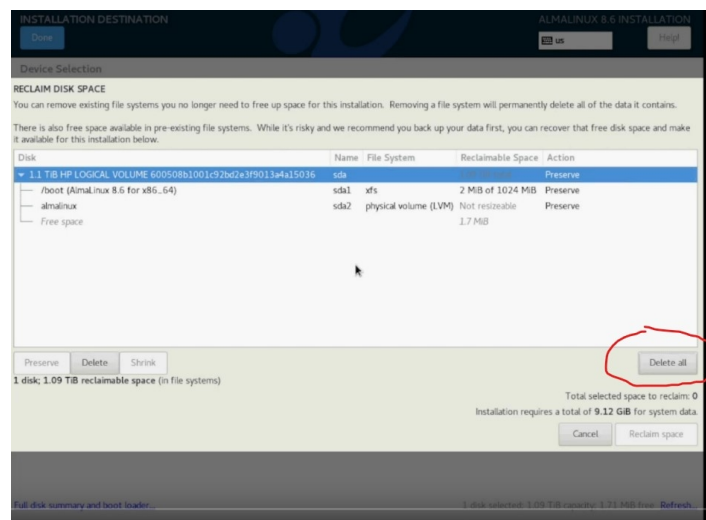 - Select the (Disk) we want to clean and install the (OS) on.
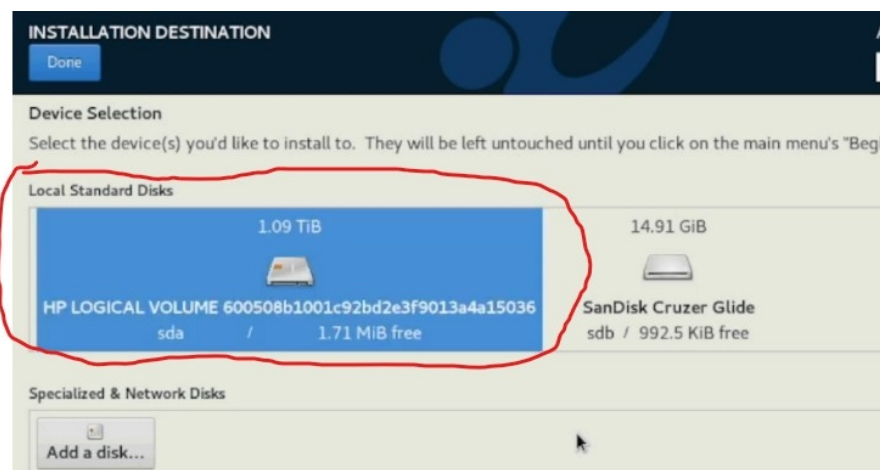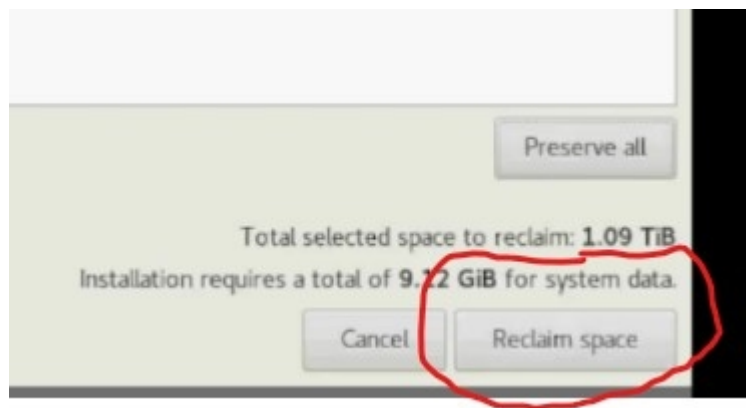
(23) Click (Done) at the top left of your screen.
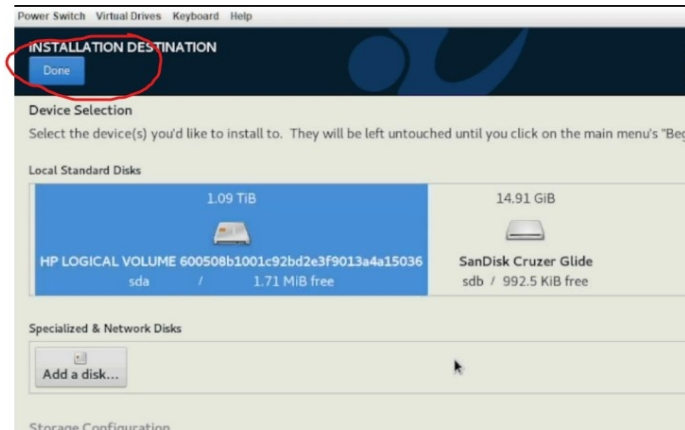
(24) Next a (Installation Options) window will pop up requesting your permission to reclaim space.
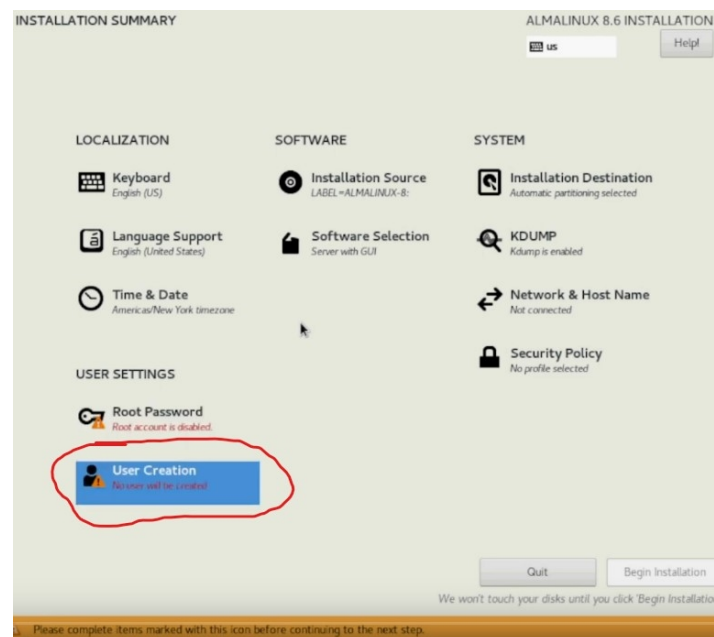 - Click on (Reclaim Space) to continue.
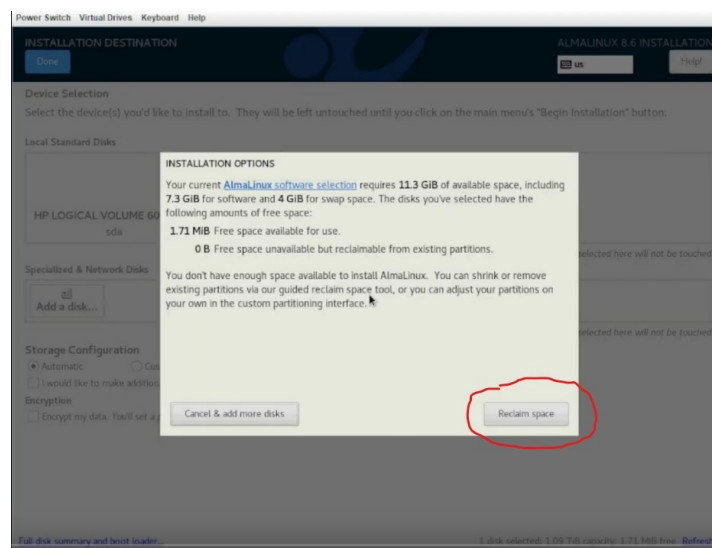
(25) The window now switches to the (RECLAIM DISK SPACE) window.
   -Select (Delete All)

(26) The option to (Reclaim Space) will now be selectable. Click on that.


(27) This will bring us back to the (Installation Summary) screen.
   -Next we will move to the (User Creation) Click on that.

(28) Now that were on the (Create User) screen lets fill in our credentials and make sure the checkbox
   (Make this user administrator) is checked.
   - For (**Full name**) we will use (***swg***), and for (**User name**) we will use (***swg***).
   - For (Password) *NOTE*:Use whatever you like make it secure by using a mix of symbols letters and numbers.
   - When you are finished Click (DONE).
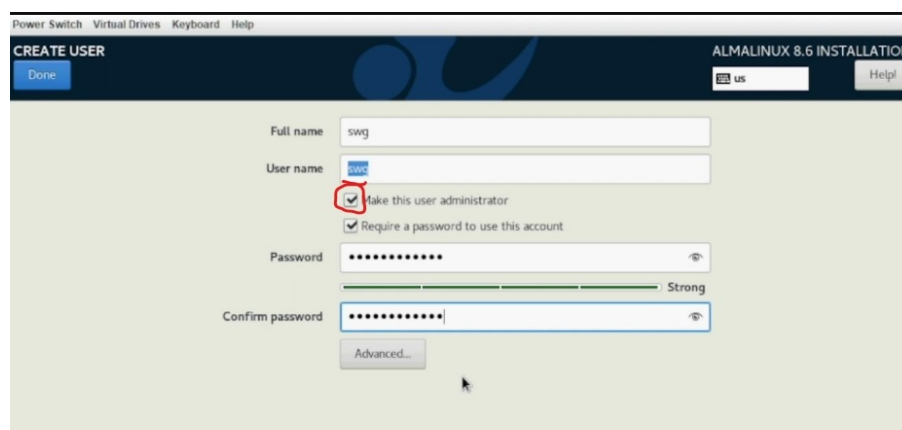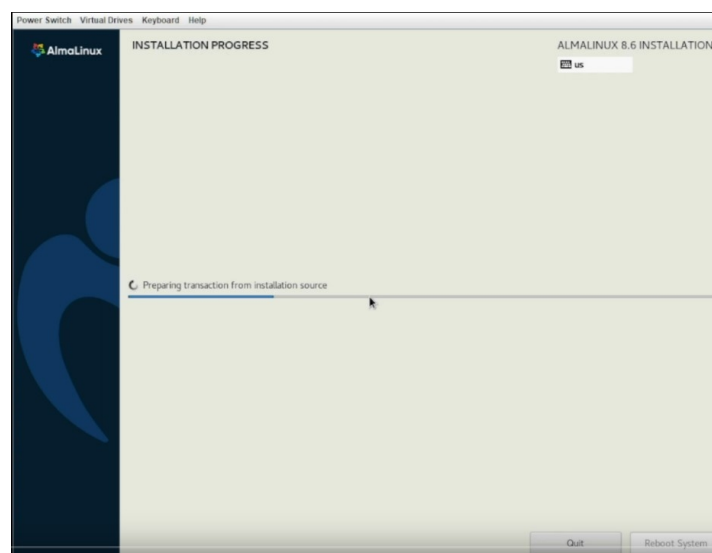
(29) Now we will be back on the (Installation summary) screen. We will now want to setup our root password so select the (Root Password) Option under (User Settings).
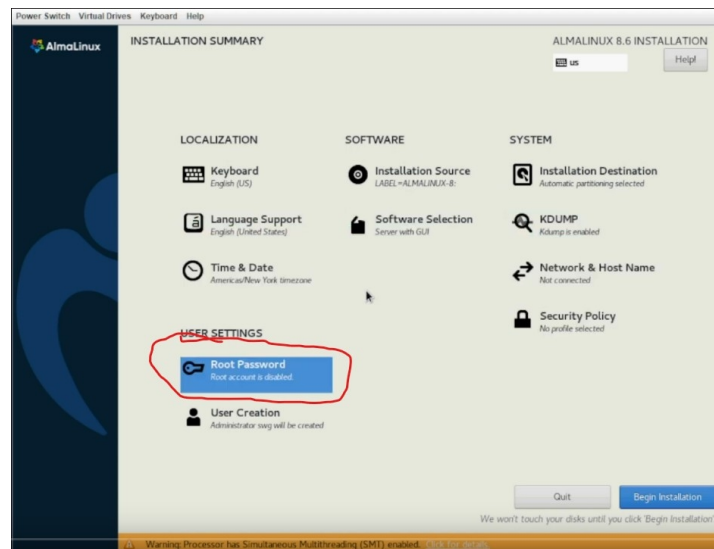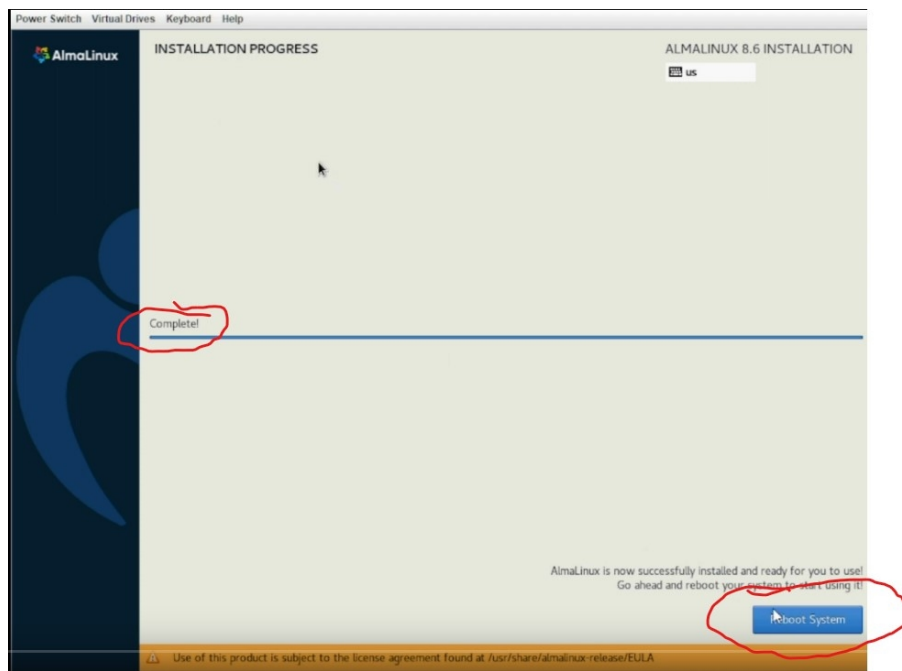

(30) This brings us to the (Root Password) screen. Fill out the root password with something strong and click (Done).
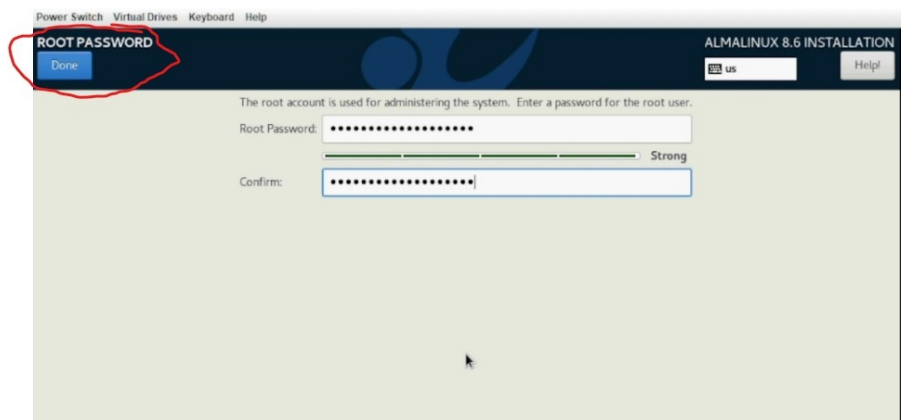
(31) Now we are cooking and the installation process will begin. *Note:* This may take a little bit.

(33) As the installation comes to a complete Click the (Reboot Server) button and reboot.

(34) Upon reboot during the post remove the USB Drive and Let Linux boot.
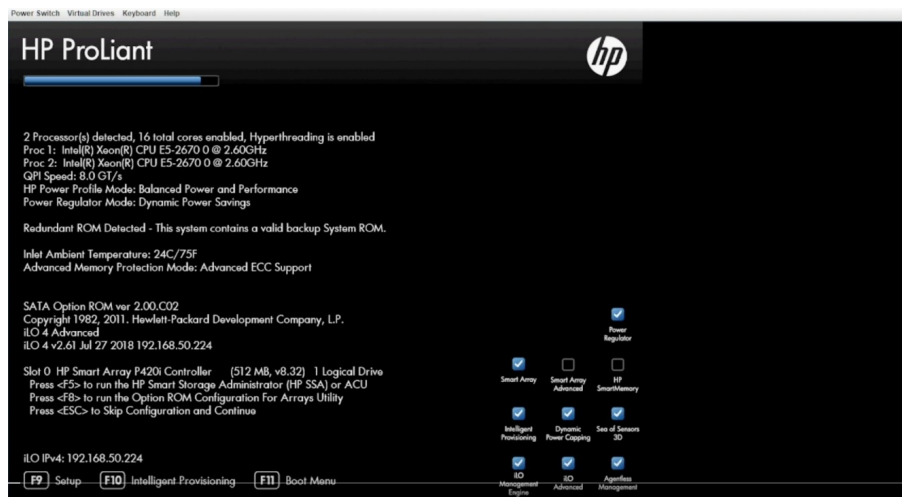
(35) Once AlmaLinux loads you will be prompted with a (EULA) button. Select That and you will move to the (EULA) screen.
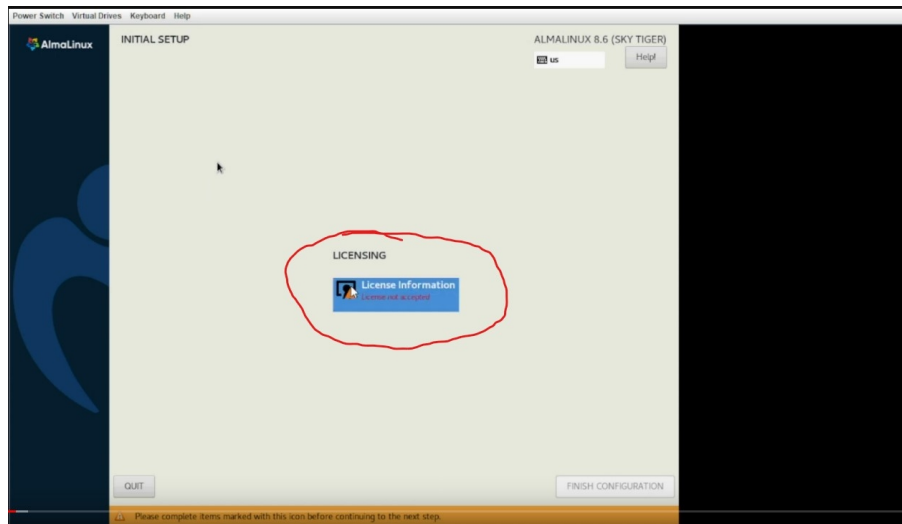
(36) In the (EULA) screen select the (I accept the liscese agreement) checkbox and click (Done) at the top left.
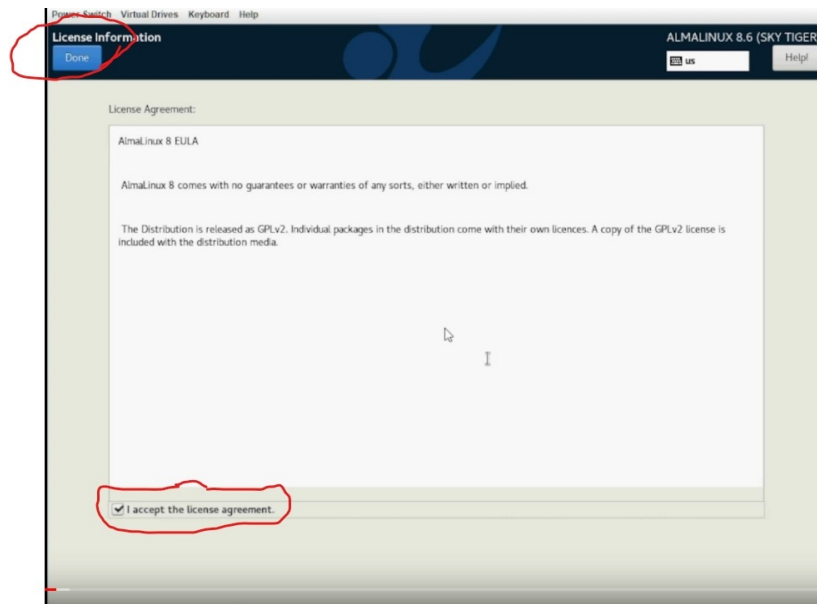
(37) Now were back on the (Initial Setup) screen with our liscense excepted Click (Finish configuration).
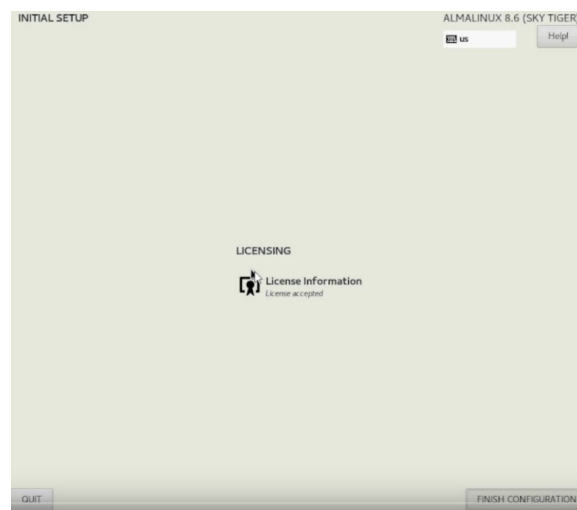
(38) Now were on the (Login Screen). Select your User Name and hit enter.
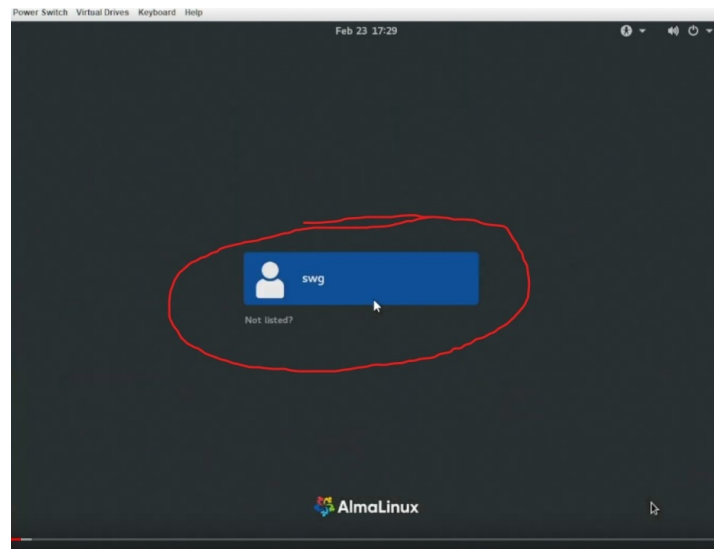
(39)Now you will be prompted for your User Account password(Not your root password). Type it in and click (Sign In).

(40) Congradulations ! If everything was successful you should now be on the desktop of your new AlmaLinux 8.6 OS.
  - The next steps in the guide will be setting up for and installing the SWG Server.

-         (Optional) Remote Desktop Connection: -
-         You may skip this step if you don't need RDP to step ( )   -
-                  -

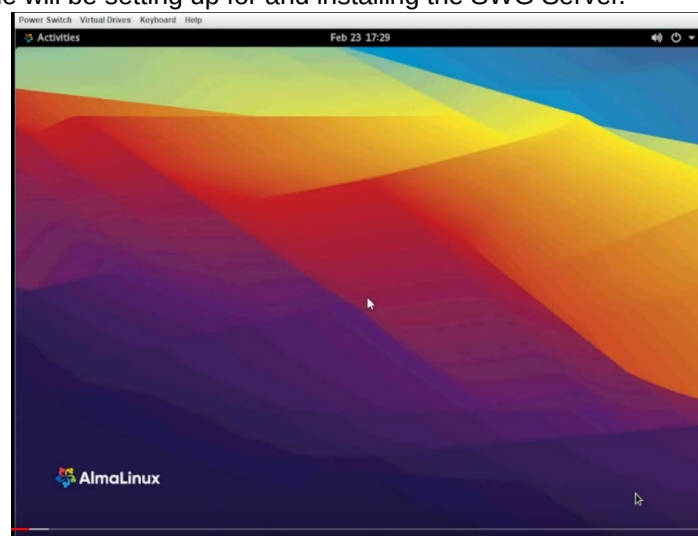(41) For this tutorial were going to install a remote desktop service that you can access from anywhere including an app.

(42) before we begin we need to do 3 things..
     1- (Make sure the swg user account can login automatically so rdp can start.)
     2- (Make sure our connection is set to automatically connect)
     3- (Make sure swg user has root access to install files)

(43) To make sure our User (swg) automatically connects we need to do the following.

(44) On your desktop click the dropdown arrow beside the power swtich

(45) When the window drops down you will see swg user click that.
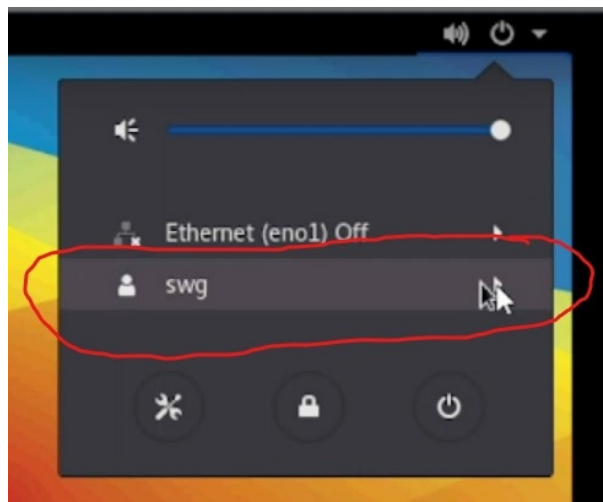
(46) More options will drop down click on (Account Settings)
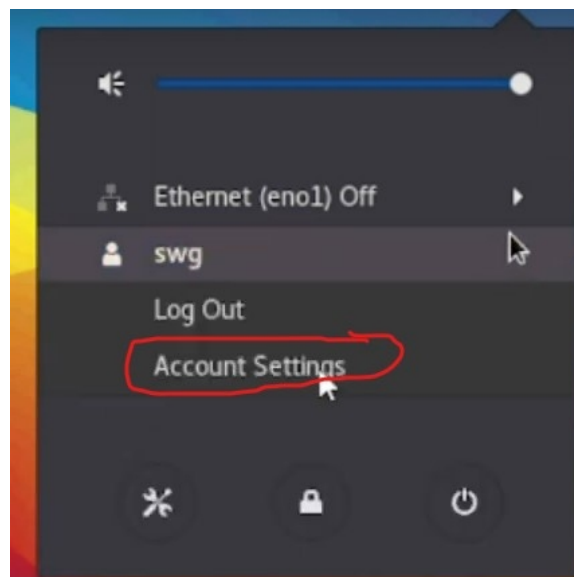
(47) This will open up a (Users) window click unlock in the top right to unlock the settings for this user.

(48) Now that the user is unlocked we want to make sure that (Automatic Login) button is on.
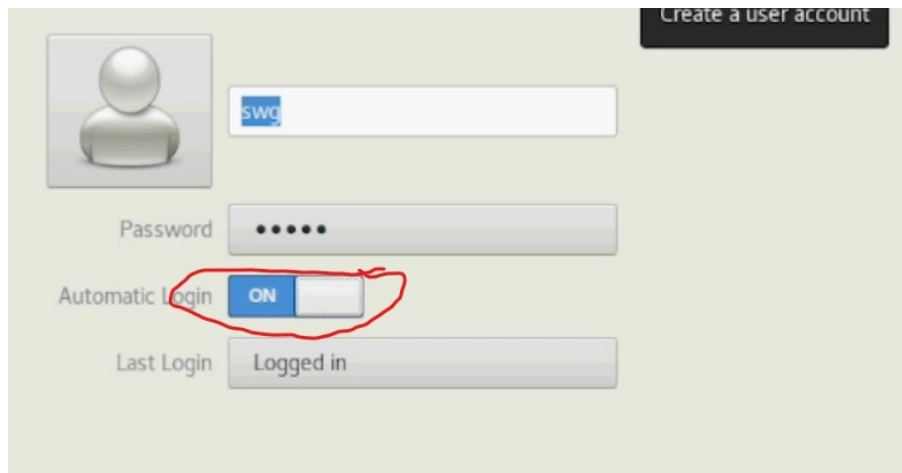
(49) Once your done with that click the (X) at the top right to close and save. Your user will now automatically login at startup. This is usefull for rdp login when its all you have.
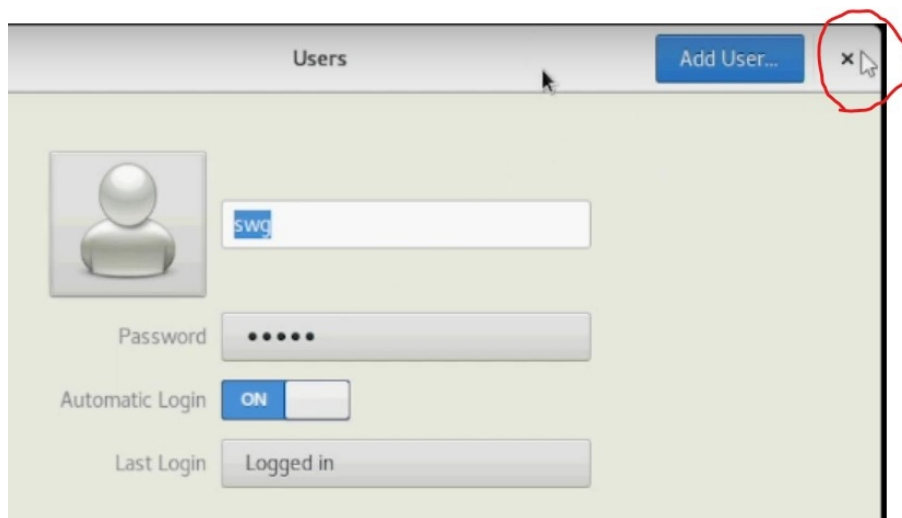
(50) Now we move on to the next step (making sure you internet connection automatically connects at startup.

(51) Next we will setup the internet connection to automatically login at desktop startup.

(52) First we need to click on the dropdown menu again beside the power off icon. Select your (Internet Adapter).
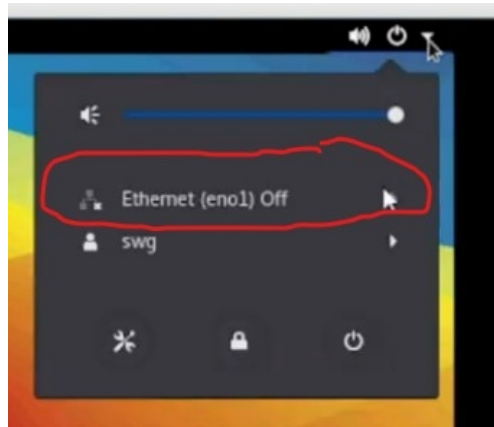
(53) This will bring up more options. Select (Wired Settings).
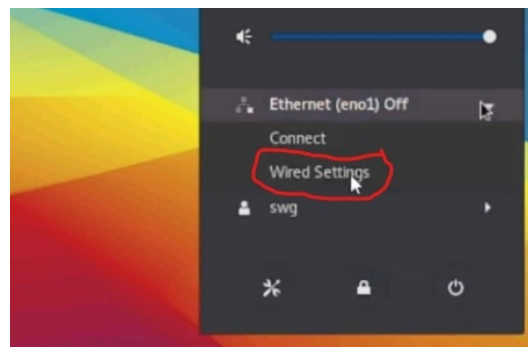
(54) This will bring up a (Network) Menu select the cog wheel next to the off/on switch for your ethernet adapter.
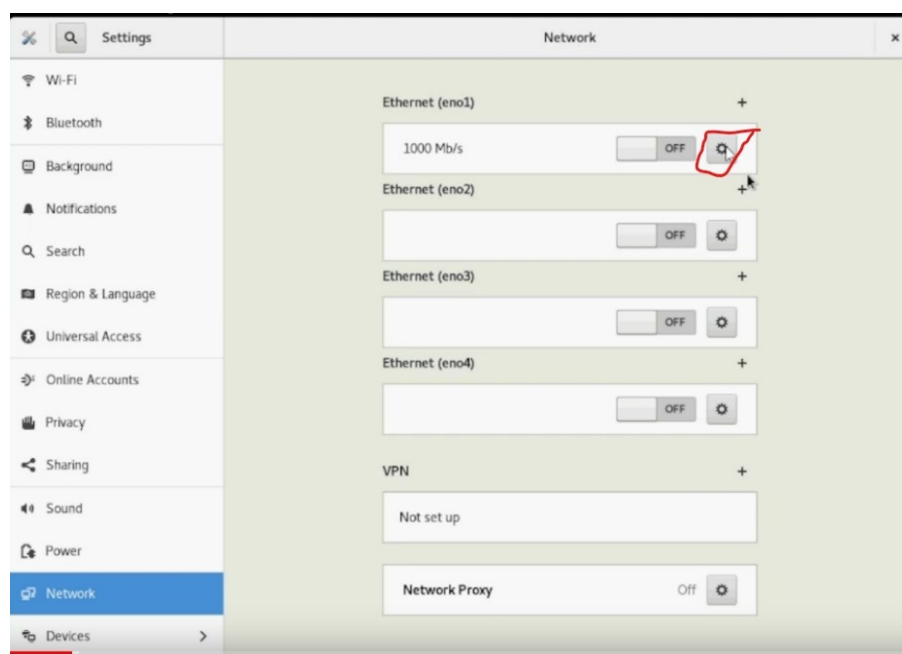
(55) You will now have the (Wired) options screen for the adapter you have chosen. We must now click on the (Connect automatically) check box and make sure its enabled then click (Apply) at the top left.
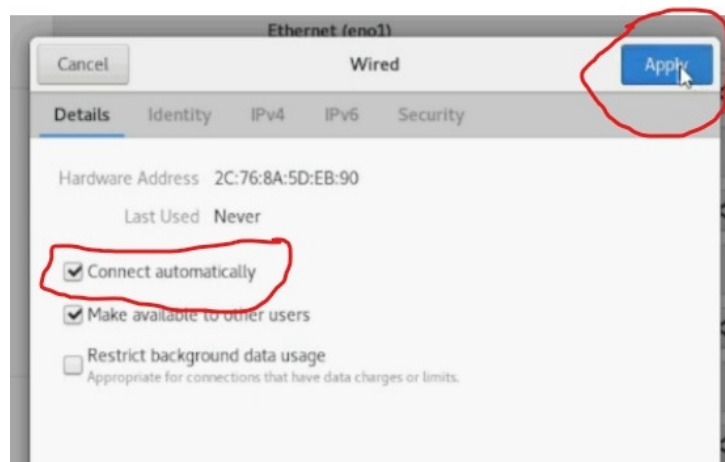
(56) After we click apply it will take us back to the (Network) screen click the (X) at the top left to close the window.

(57) Now we have the user set to auto login and the network to auto login. This is nessicary for the RDP to auto login. The last thing left for this part of the tutorial is to set sudo perms to user (swg) so we can download and install Dwservice.

(58) Bring up terminal and move to step (59)
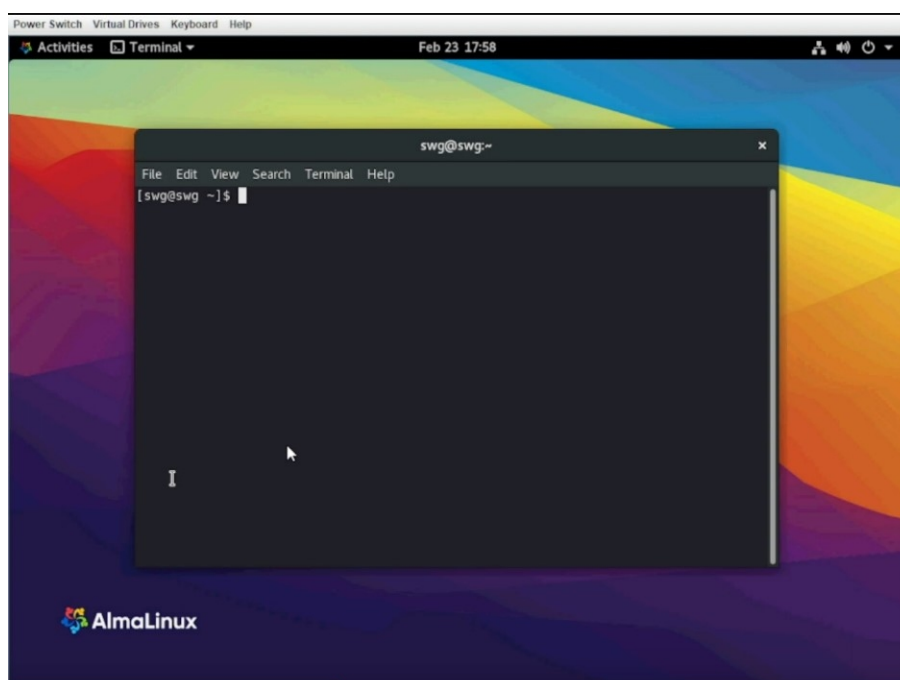
(59) in the terminal type the following in order.

Type: su root
(enter your swg user password and hit enter)

Type: cd

Type: dnf install nano

```
[swg@swg ~]$ su root
Password:
[root@swg swg]# cd
[root@swg ~]# dnf install nano
AlmaLinux 8 - BaseOS                          1.3 MB/s | 5.1 MB     00:04
AlmaLinux 8 - AppStream                       1.7 MB/s |  11 MB     00:06
AlmaLinux 8 - Extras                           25 kB/s |  19 kB     00:00
Last metadata expiration check: 0:00:01 ago on Thu 23 Feb 2023 05:38:11 PM EST.
Package nano-2.9.8-1.el8.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@swg ~]#
```
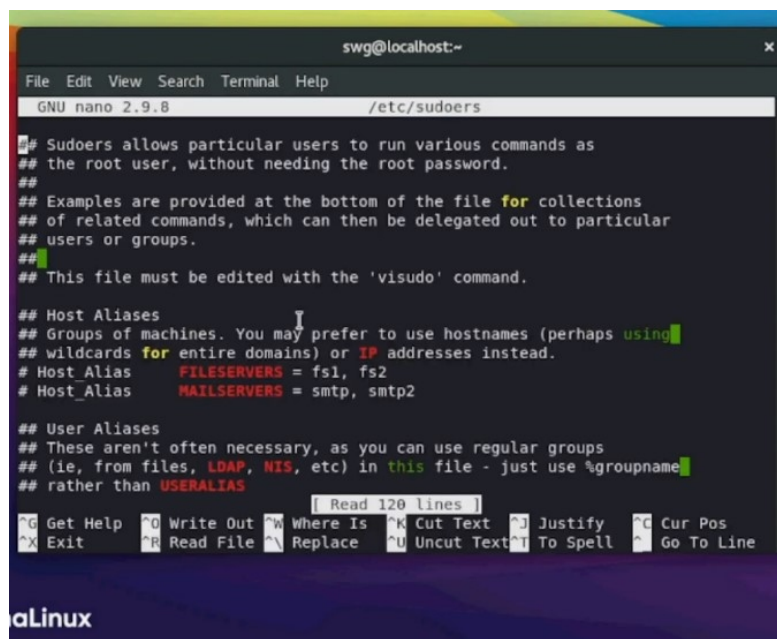
(60)This installs nano so we can edit the sudoers file.Wait till it says complete and move to the next step.

(61) Now we want to edit the sudoers file. So in terminal Type the following
Type: nano /etc/sudoers

```
Package nano-2.9.8-1.el8.x86_64 is al
Dependencies resolved.
Nothing to do.
Complete!
[root@swg ~]# nano /etc/sudoers
```

(62) This will open up the sudoers file.

```
                              swg@localhost:~                              ×

 File  Edit  View  Search  Terminal  Help
   GNU nano 2.9.8                    /etc/sudoers

 # Sudoers allows particular users to run various commands as
 ## the root user, without needing the root password.
 ##
 ## Examples are provided at the bottom of the file for collections
 ## of related commands, which can then be delegated out to particular
 ## users or groups.
 ##
 ## This file must be edited with the 'visudo' command.

 ## Host Aliases
 ## Groups of machines. You may prefer to use hostnames (perhaps using
 ## wildcards for entire domains) or IP addresses instead.
 # Host_Alias     FILESERVERS = fs1, fs2
 # Host_Alias     MAILSERVERS = smtp, smtp2

 ## User Aliases
 ## These aren't often necessary, as you can use regular groups
 ## (ie, from files, LDAP, NIS, etc) in this file - just use %groupname
 ## rather than USERALIAS
                          [ Read 120 lines ]
 ^G Get Help   ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos
 ^X Exit       ^R Read File  ^\ Replace    ^U Uncut Text ^T To Spell   ^_ Go To Line

 aLinux
```

(63)find the lines with

Allow root to run any commands anywhere
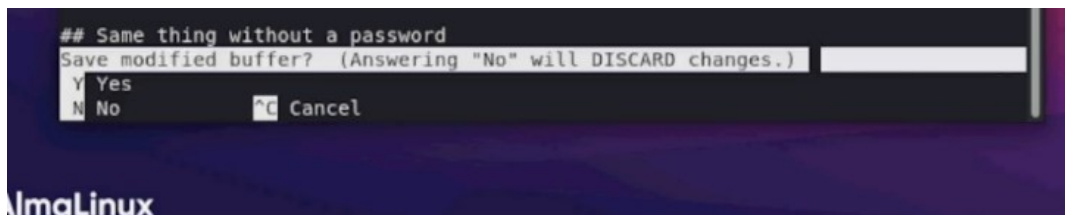
root ALL=(ALL) ALL

```
## Allow root to run any commands anywhere

root ALL=(ALL) ALL
```

(64) right after root ALL=(ALL) ALL add swg ALL=(ALL) ALL like the image below to add your (swg) user to the sudo group.

```
## which machines (the sudoers file can be shared between multiple
## systems).
## Syntax:
##
##        user     MACHINE=COMMANDS
##
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root     ALL=(ALL)        ALL
swg      ALL=(ALL)        ALL
## Allows members of the 'sys' group to run networking, software,
## service management apps and more.
# %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEGATING, PROCESSES, LO$

## Allows people in group wheel to run all commands
```

(65) Now we want to save the file by pressing (Ctrl+X, Y), and hit the (Enter) key.

```
## Same thing without a password
Save modified buffer?  (Answering "No" will DISCARD changes.)
Y Yes
N No              ^C Cancel
```
AlmaLinux
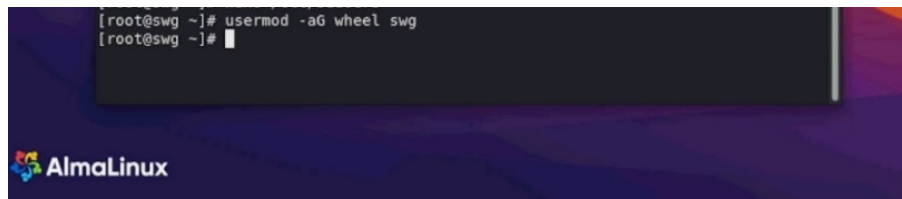
(66) Next we will do another step to make sure our swg user has sudo.Type the follwing in terminal.

Type: su
(enter your swg user password and hit enter)

Type: cd
Type: usermod –aG wheel swg

```
[root@swg ~]# usermod -aG wheel swg
[root@swg ~]#
```
AlmaLinux

(67) With all these steps completed our user (swg) now has sudo access. Now we can move on to the install of the
    Dwservice.

- **_Preperation:_ For Installing SWG Server files** -

- _NOTICE :_ This part of the Installation is pulled directly from a guide originally by Tekohswg and modified by RezecNoble, -
- then reworked by ForsakenReaper with new images. All credits to the guides go to them. -
- - Source of this installation guide can be found here. (**https://github.com/SWGEvolve/swg-prepare**). -

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(41)

To Be Continued …..

This guide is still being developed and added to.

Guide is unfinished till this page is gone.