

Start Guide: OmniSwitch running AOS 8.x

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Before you start

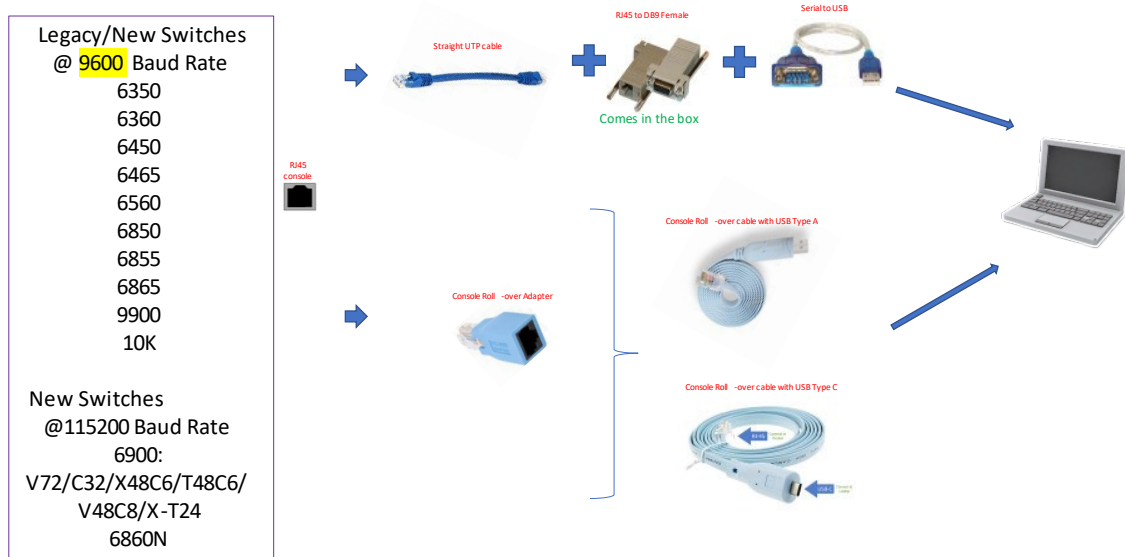
ALE OmniSwitch ship with all ports in VLAN 1. No default IP is set to avoid conflicts. PoE is disabled by default for safety and security. Do not discard or lose the included grey RJ45 console adapter. Adapters wired for Cisco equipment will **not** work. Default login is username: admin password: switch

First login

There are two methods of logging into a factory default switch, via the serial console port or using DHCP and an Ethernet connection.

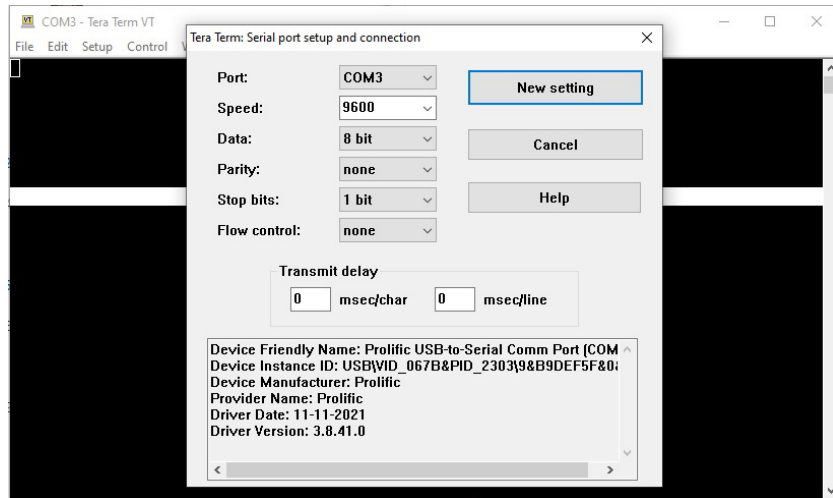
Starting with the serial console, connect a standard Ethernet cable to the RJ45 console port on the switch and connect the grey RJ45 adapter. Connect your standard RS-232 DB9 cable to the other end of the grey adapter and your laptop.

ALE CONSOLE CONNECTION



You may add OS6900 X24C2/T24C2 too.

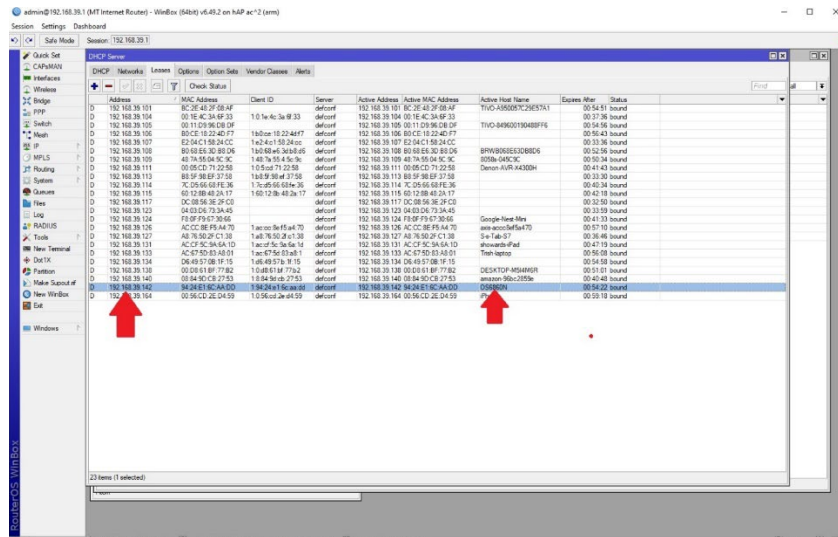
Set your serial port to 9600 baud (or 115200 as needed), 8, none, 1, no flow control on the laptop and terminal emulator. In this example, we are using a Prolific USB to Serial adapter that Windows has installed on COM 3 based on the USB port where the adapter was inserted. Your COM port may be different.



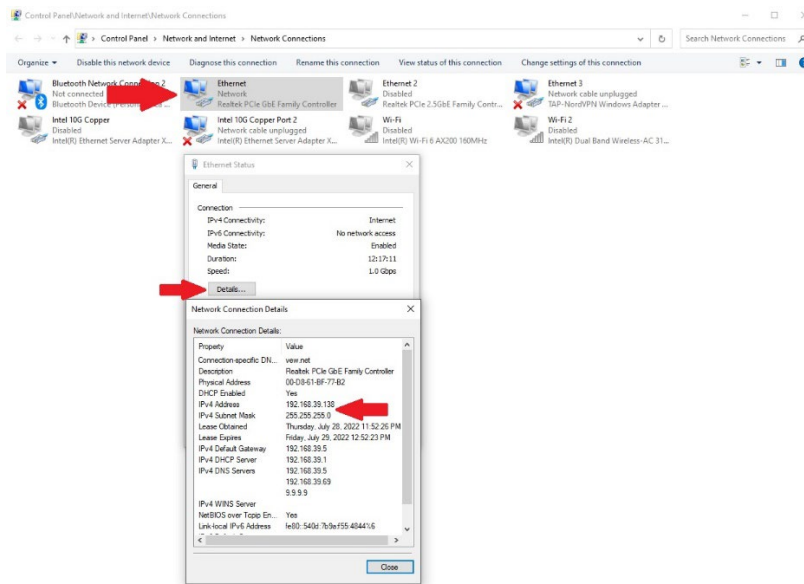
Using the correct settings, press return several times. If no login prompt appears or “garbage” appears with each return, check your settings and cables, and try again.



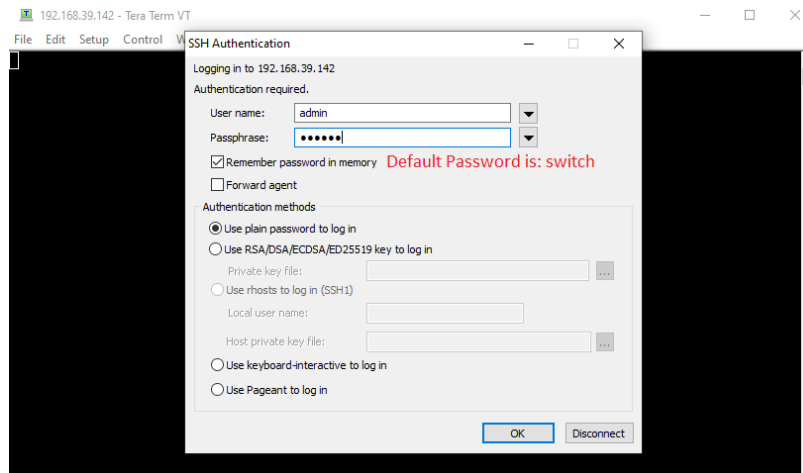
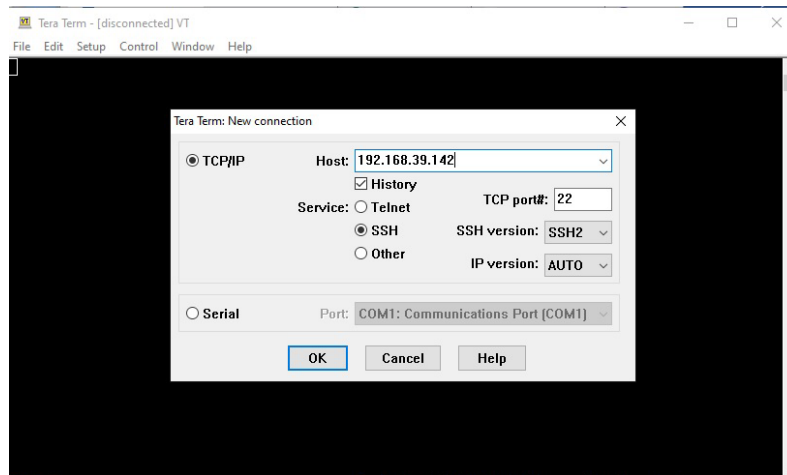
The switch will automatically obtain a dynamic IP address from DHCP if available at first boot. Please note the switch will only make 3 attempts and then stop if DHCP is not functioning. You must power cycle the switch to restart the DHCP process if needed. Attach port 1 of the switch to your existing network with DHCP and power it on. Wait for the boot sequence to complete and obtain the dynamic IP. An example is shown where the DHCP server assigned the 192.168.39.142 address to an ALE OmniSwitch.



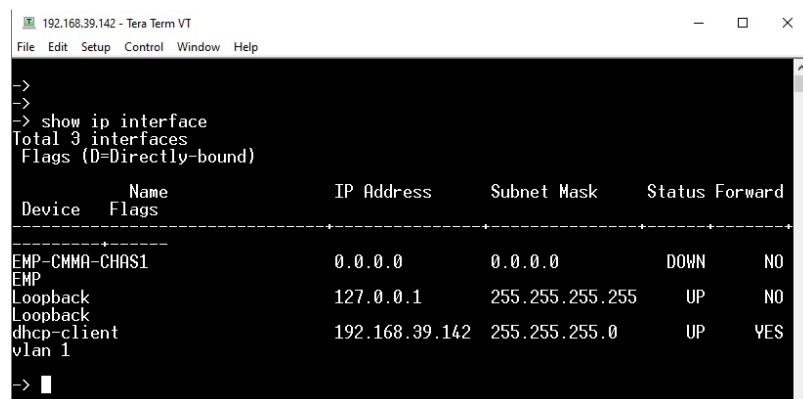
Obtain a DHCP address from the same server on your MS Windows laptop. Verify the address and subnet mask.



Once successful, you can then ssh to the switch.



Notice the command line prompt -> and verify the dhcp-client IP interface using the: *show ip interface* command.



Tasks to complete after login

These instructions are tailored for vendors deploying cameras on a small to medium video surveillance network. Please contact your authorized ALE reseller if this is not the case. The following CLI commands should be issued. The command will be in *italics* followed by # and comment explaining what the command does.

aaa authentication default "local" # Enables web interface, and local logins to the switch.

Telnet and FTP are insecure services and likely should be disabled.

ip service telnet admin-state disable

ip service ftp admin-state disable

(this enables unsecure telnet and ftp too, it's may better to explicitly only allow ssh, http, snmp - if I remember well, we do redirect http to https by default)

lanpower slot 1/1 service start # Enables PoE

loopback-detection enable # Helps prevent loops on the network. Enable this globally and then add per port as needed. Example: loopback-detection port 1/1/1 enable

Choose a static management IP for the switch. An example is below but you must customize this for your needs.

ip interface "MGT1" address 192.168.39.142 mask 255.255.255.0 vlan 1 # Set a management IP interface. (Note that the new MGT1 IP subnet cannot conflict with the existing DHCP subnet. Use a console cable to configure the switch if you cannot avoid this situation.)

Add a default route if needed

ip static-route 0.0.0.0/0 gateway 192.168.39.1 # Note your default route IP may be different.

(having the default route with 39.1 as same address as MGT1 address doesn't work 😊)

Change the default password

password # Follow the prompts. Old password, new password, password confirmation. The password must contain at least 8 characters. Do not share the password with unauthorized people. Do not forget your password. Contact your reseller if the password is lost and you have physical access to the switch console ports.

write memory # Save the configuration changes from RAM to /flash/working directory. Failure to issue this command will result in all changes being lost upon any reboot or power cycle.

copy running certified # Copy working firmware and configuration to the backup /flash/certified directory. Failure to issue this command will result in the switch loading into a rescue mode upon any reboot or power cycle. See trouble shooting comments below for more information.

reload from working no rollback-timeout # Reboot the switch from /flash/working directory and do not use the rollback (rescue) mode.

```
192.168.39.142 - Tera Term VT
File Edit Setup Control Window Help
->
->
->
->
->
-> aaa authentication default "local"
-> loopback-detection enable
-> ip interface "MGT1" address 192.168.40.1 mask 255.255.255.0 vlan 1
-> write memory
File /flash/working/vcsetup.cfg replaced.
File /flash/working/vcboot.cfg replaced.
-> copy running certified
Please wait...
-> reload from working no rollback-timeout
Confirm Activate (Y/N) : █
```

Note that not every command required is illustrated here. Screen shot included for illustration purposes only. Note any errors that may occur and contact tech support if needed.

Test your new settings. ssh to the new management IP address and login as admin. Correct any errors if needed and remember to *write memory* and *copy running certified* after configuration changes. Once verified, reboot the switch if required. (Changed IP management settings, etc.)

Connect your first camera and verify correct operations. Check the PoE status of devices from the switch.

```
192.168.39.26 - Tera Term VT
File Edit Setup Control Window Help
6860E-Router1-> show lanpower slot 1/1
  Port  Maximum(mW)  Actual Used(mW)  Status  Priority  On/Off  Class  Type
-----
1/1/1  30000             0  Searching  Low      ON      *
1/1/2  30000             0  Searching  Low      ON      *
1/1/3  30000             0  Searching  Low      ON      *
1/1/4  30000            4300  Powered On  Low      ON      *
1/1/5  30000             0  Searching  Low      ON      *
1/1/6  30000             0  Searching  Low      ON      *
1/1/7  30000             0  Searching  Low      ON      *
1/1/8  30000             0  Searching  Low      ON      *
1/1/9  30000             0  Searching  Low      ON      *
1/1/10 30000             0  Searching  Low      ON      *
1/1/11 30000            8700  Powered On  Low      ON      *
1/1/12 30000             0  Searching  Low      ON      *
1/1/13 30000             0  Searching  Low      ON      *
1/1/14 30000             0  Searching  Low      ON      *
1/1/15 30000             0  Searching  Low      ON      *
1/1/16 30000             0  Searching  Low      ON      *
1/1/17 75000             0  Searching  Low      ON      *
1/1/18 75000             0  Searching  Low      ON      *
1/1/19 75000             0  Searching  Low      ON      *
1/1/20 75000             0  Searching  Low      ON      *
1/1/21 75000             0  Searching  Low      ON      *
1/1/22 75000             0  Searching  Low      ON      *
1/1/23 75000             0  Searching  Low      ON      *
1/1/24 75000             0  Searching  Low      ON      *

ChassisId 1 Slot 1 Max Watts 450
12 Watts Actual Power Consumed
438 Watts Actual Power Budget Remaining
450 Watts Total Power Budget Available
1 Power Supply Available
BPS power: Not Available
'* appending port maxpower indicates 4pair port operating in 2pair mode
6860E-Router1-> █
```

Common errors and troubleshooting tips

write memory fails with an error message. The switch is in certified (rescue) mode. Reboot the switch from the working directory using the following command: *reload from working no rollback-timeout*

The switch was rebooted, or power cycled, and all configuration changes were “lost”. This means the *copy running certified* command was not issued after previous configuration changes were made. Log into the switch.

cd /flash/working # Change directory to working

more vcboot.cfg # View and verify correct configuration. Tap the space bar once to advance the screen.

reload from working no rollback-timeout # Reboot from the correct (working) directory. Log back into the switch.

write memory

copy running certified

The configuration will now be stored in both working and certified directories.

How can I tell if I’m in working or certified (rescue) mode? Run the following command: *show running-directory*

I want to view the entire configuration file. Run the following command: *show configuration snapshot*

I need to know what version of AOS is running on the switch. Run the following command: *show system*

I need the serial number of the switch from the command line: Run the following command: *show cmm*

I need to see how much of the PoE budget is being consumed and the wattage per port. Run the following command: *show lanpower slot 1/1*