
flokinet-001 - Introduction to the Arista CLI

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(and a bit about how it works with containerlab and docker)

Tech Stack overview

- VM in the Hetzner Cloud (named “netlab.nanocat.net”)
- .. running Linux (Debian 11)
- .. and docker
- .. and containerlab
- containerlab creates containers based on a YAML file
- and runs EOS images (called cEOS) that I downloaded from Arista.com
- (and also tiny Linux images, to act as “PCs” in the LAB)
- (and also:)
 - Azure SONIC
 - Juniper cRPD
 - Cumulus VX
 - Keysight IXIA-C
 - Nokia SR-Linux

Connecting to the lab server

- Open your favourite Terminal Emulator
- SSH to the netlab server:
 - `$ ssh-keygen -R netlab.nanocat.net` <- delete the cached fingerprint
(lab server rebuilt frequently)
 - `$ ssh lab@netlab.nanocat.net`
Password: (generated fresh each week)
- List the running containerlab devices:
 - `$ sudo containerlab inspect --all`
- Connect to an **Arista** device:
 - `$ sudo docker exec -it clab-device-name Cli`
- .. or connect to a **Linux** device:
 - `$ sudo docker exec -it clab-pcXX-name bash`

enable and disable modes

- You will almost always enter `enable` as your first command after logging into your EOS (or IOS) device.
- **enable (privileged) mode**

- router>enable
router#
- prompt#
- changes to the configuration possible
- more access to detailed show commands

- **disable (unprivileged) modes**

- router#disable
router>
- prompt>
- no configuration changes possible
- safe, even for public access (search the web for “bgp looking glass telnet”)

? and <TAB>

- ? and <TAB> are used for help and command completion respectively. Try entering these commands:
- router#show ?
router#show ip ?
router#show ip route ?
router#sh<TAB> ip ro<TAB>
- Commands can be abbreviated to their shortest unambiguous length. Try these:
- router#show running-config
router#show running
router#show run
router#sh run
router#sh ru

The “show” command

- Show commands tell us about the device hardware status, its protocols, software version, and so on. Try these commands:
- show version
show running-config
show interface
show interface status
show ip interface
show ip interface brief

Changing the Configuration

- Entering “Global Configuration Mode”:
 - `router#configure`
`router(config)#`
- Configuring an interface:
 - `router(config)#interface ethernet1`
`router(config-if-eth1)#description This interface connects to the switch`
`router(config-if-eth1)#`
- Exiting interface configuration, back to global config, then exit config mode:
 - `router(config-if-eth1)#exit`
`router(config)#exit`
`router#`
- Look at the configuration:
 - `router#show running-config`

Configuring an interface

- Configuring an IP address on an ethernet interface:
 - `router#configure`
`router(config)#interface ethernet1`
`router(config-if)#ip address 172.17.0.1/24`
`! IP configuration will be ignored while interface Ethernet1 is not a routed port.`
`router(config-if)#no switchport`
`router(config-if)#exit`
`router(config)#exit`
`router#show ip interface brief`
`...`

Reconfiguring an interface

- Changing an IP address on an ethernet interface:
 - `router#configure`
`router(config)#interface ethernet1`
`router(config-if-eth1)#ip address 10.0.0.1/24`
`router(config-if-eth1)#end`
`router#show ip interface brief`
`...`

Reconfiguring an interface, again

- Removing the IP address from an ethernet interface:

- ```
router#configure
router(config)#interface ethernet1
router(config-if-eth1)#no ip address
router(config-if-eth1)#end
router#show ip int brief
...
```

## Discovering our neighbours

- Checking our LLDP neighbours:

```
router#show lldp neighbor
...
```

- Ping another device:

- ```
router#ping 10.0.0.4
...
```