

Edgecore Switch Usage with SONiC

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Accessing the Switch

You can access the switch by sshing into it with its management IP located in "Servers and Switches" section in each of the Pods wiki pages. The login credentials will be located on the servers of the Pod located in /opt/server_info.txt.

Configuration

Once you have logged in you can configure the entire switch from one file located in /etc/sonic/config_db.json. You can also use commands like a Cisco CLI like through the wiki here: <https://github.com/Azure/sonic-utilities/blob/master/doc/Command-Reference.md>

Creating VLANs

Currently the Broadcom platform is broken on the current builds of SONiC. So we have a couple of workarounds to get things working.

Edit /etc/sonic/config_db.json

```
$ sudo vim /etc/sonic/config_db.json
```

This is what a typical VLAN setup would look like, just add the interfaces and VLANs you wish to use.

```
"VLAN": {
  "Vlan3002": {
    "members": [
      "Ethernet0",
      "Ethernet4"
    ],
    "vlanid": "3002"
  }
},
"VLAN_MEMBER": {
  "Vlan3002|Ethernet0": {
    "tagging_mode": "tagged"
  },
  "Vlan3002|Ethernet4": {
    "tagging_mode": "untagged"
  }
}
```

Once you have finished editing the json file, run this command to reload the config:

```
$ sudo config reload -y
```

Untagged VLAN Workaround

Currently untagged VLANs do not just work right out of the box, it will show that it is untagged and will seem like it is working but no traffic will be able to go through the port unless you do this work around.

Edit /etc/sonic/config_db.json and go to the top of the file and you should see something like this:

```
"BGP_NEIGHBOR": {
  "10.0.0.1": {
    "asn": "65200",
    "holdtime": "180",
    "keepalive": "60",
    "local_addr": "10.0.0.0",
    "name": "ARISTA01T2",
    "nhopself": 0,
    "rrclient": 0
  },
  "10.0.0.3": {
    "asn": "65200",
    "holdtime": "180",
    "keepalive": "60",
    "local_addr": "10.0.0.2",
    "name": "ARISTA02T2",
    "nhopself": 0,
    "rrclient": 0
  },
}
```

Then count down to which interface you are setting up to be untagged (for example Ethernet0 lines up to 10.0.0.1 and Ethernet4 lines up to 10.0.0.3) and delete the entire section from the IP address down to its closing bracket.

Then scroll down till you find something like this:

```
"INTERFACE": {
  "Ethernet0|10.0.0.0/31": {},
  "Ethernet4|10.0.0.2/31": {},
}
```

And then just delete the line with the interface you are setting up for untagged VLANs.

Once all of this is done save the file and then reload the config:

```
$ sudo config reload -y
```

Now traffic should be able to flow through that port.

Breakout Cables

Breakout cables are now working on all of our pods with edgecore switches.

If you require all or some SFP connections over breakouts on the servers from your Pod please email lfedge-lab@iol.unh.edu.