

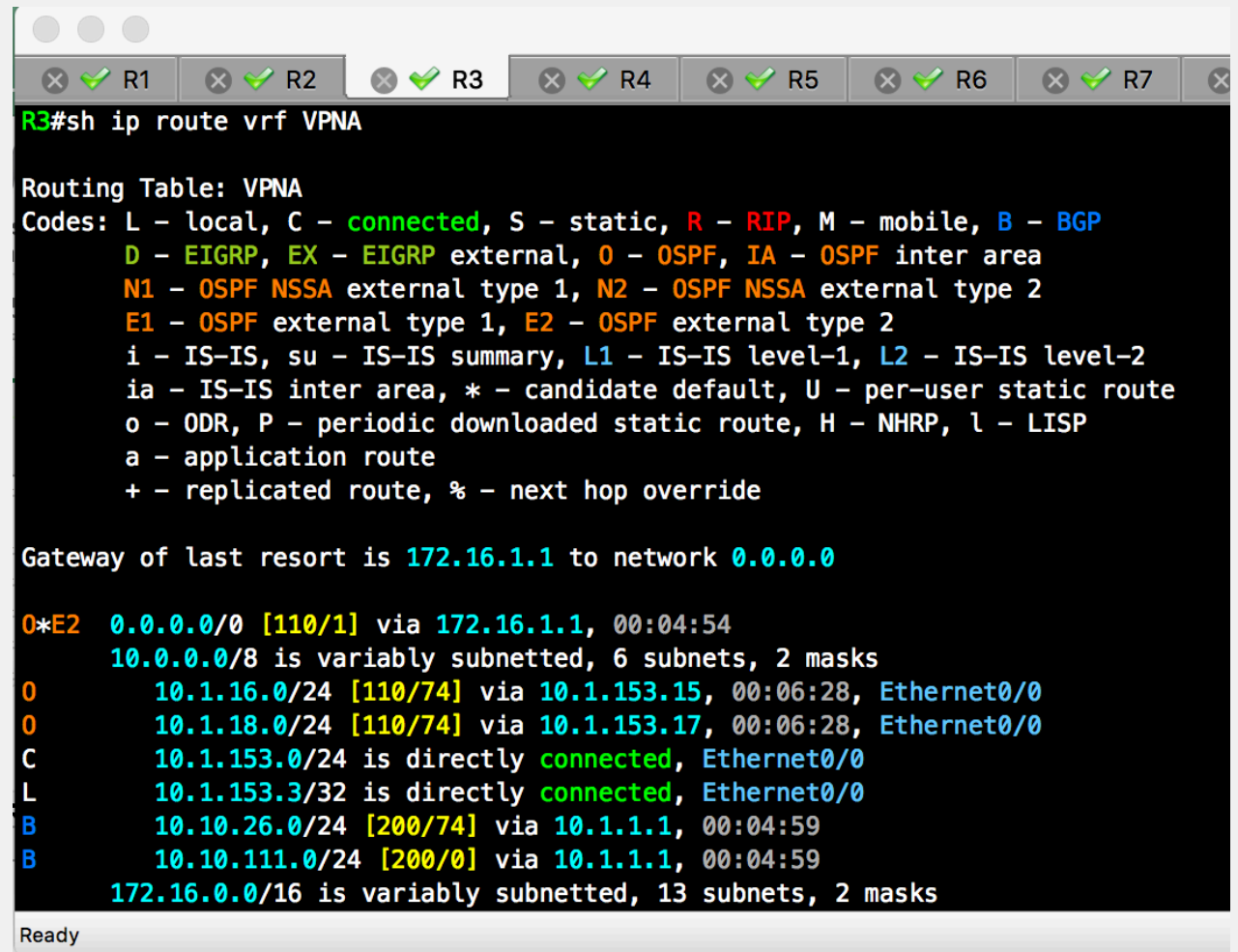


February SUNY Office Hours

Tools and Tips for Network Engineers

CLI Tools

- SecureCRT - \$190 for 3 years
- MobaXterm
- Super Putty
- Tera Term
- Putty
- Built in widget



```
R3#sh ip route vrf VPNA

Routing Table: VPNA
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override

Gateway of last resort is 172.16.1.1 to network 0.0.0.0

O*E2 0.0.0.0/0 [110/1] via 172.16.1.1, 00:04:54
      10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
O      10.1.16.0/24 [110/74] via 10.1.153.15, 00:06:28, Ethernet0/0
O      10.1.18.0/24 [110/74] via 10.1.153.17, 00:06:28, Ethernet0/0
C      10.1.153.0/24 is directly connected, Ethernet0/0
L      10.1.153.3/32 is directly connected, Ethernet0/0
B      10.10.26.0/24 [200/74] via 10.1.1.1, 00:04:59
B      10.10.111.0/24 [200/0] via 10.1.1.1, 00:04:59
      172.16.0.0/16 is variably subnetted, 13 subnets, 2 masks

Ready
```



Config File Management

- Notepad++
 - Find/Replace w/regex
 - Bookmarking
 - Blank operations
- VS Code
 - Showing/hiding config sections
- Python
 - Create config files/scripts
 - Netmiko
 - Log into network devices
- Git/GitHub
 - Config file management/tracking/sharing
- FG/FM

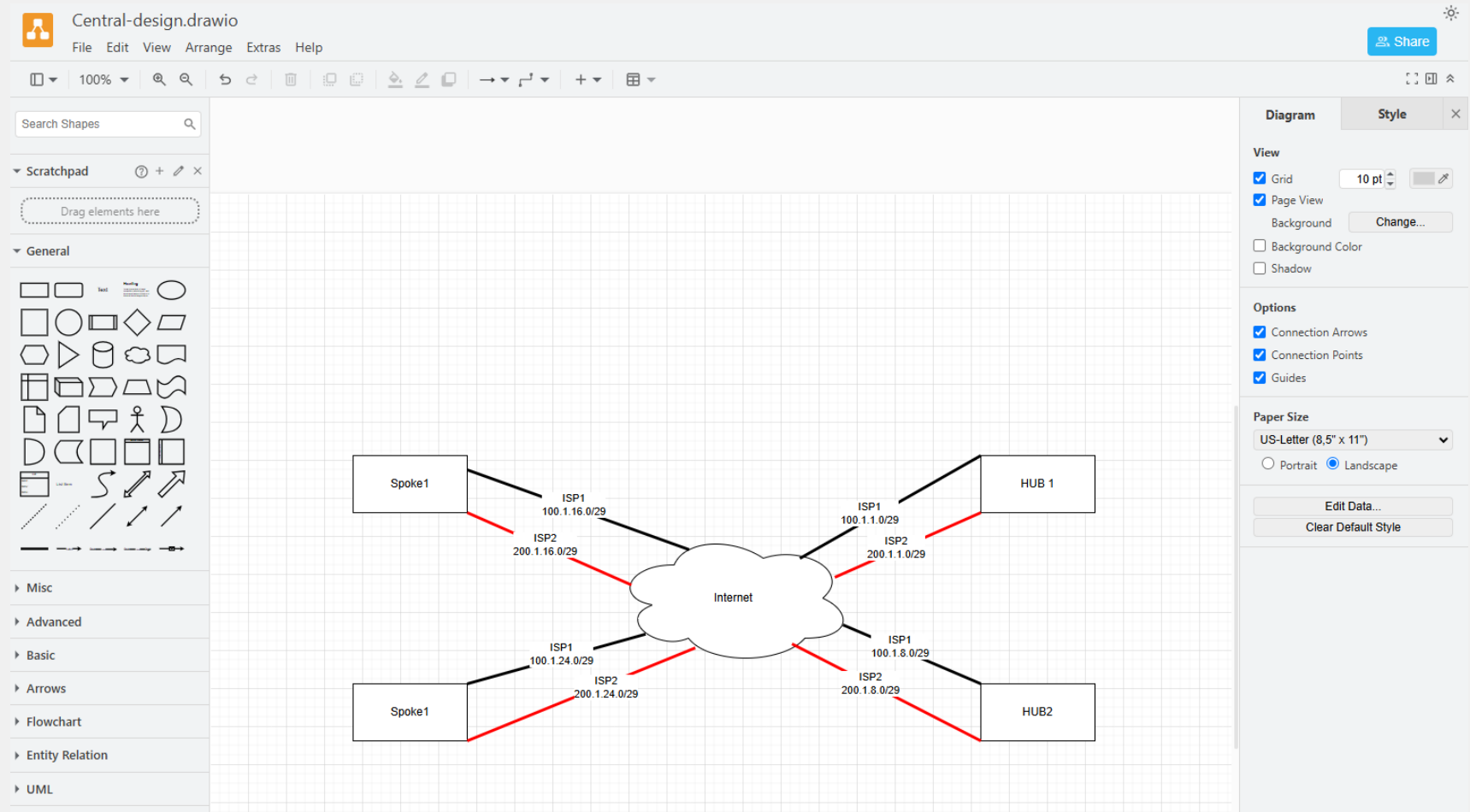
```
hub.txt
1 #config sys interface
2   edit "SDWAN-LB"
3     set vdom root
4     set ip 172.16.255.254/32
5     set allowaccess ping
6     set type loopback
7     set role lan
8   next
9   edit "VxLAN-LB"
10    set vdom root
11    set ip 172.16.0.1/32
12    set allowaccess ping
13    set type loopback
14    set role lan
15  next
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44 end
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br.txt
1 #config system interface
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8
9   edit "VxLAN-LB"
10    set vdom "root"
11    set ip 172.16.0.2 255.255.255.255
12    set allowaccess ping
13    set type loopback
14
15  next
16  edit "s_isp1_h_isp1"
17    set vdom "root"
18    set type tunnel
19    set ip 10.254.1.2 255.255.255.255
20    set remote-ip 10.254.1.1 255.255.255.252
21    set interface "port1"
22  next
23  edit "s_isp1_h_isp2"
24    set vdom "root"
25    set type tunnel
26    set ip 10.254.1.6 255.255.255.255
27    set remote-ip 10.254.1.8 255.255.255.252
28    set interface "port1"
29  next
30  edit "s_isp2_h_isp1"
31    set vdom "root"
32    set type tunnel
33    set ip 10.254.1.10 255.255.255.255
34    set remote-ip 10.254.1.9 255.255.255.252
35    set interface "port2"
36  next
37  edit "s_isp2_h_isp2"
38    set vdom "root"
39    set type tunnel
40    set ip 10.254.1.14 255.255.255.255
41    set remote-ip 10.254.1.13 255.255.255.252
42    set interface "port2"
43  next
44 end
45
```



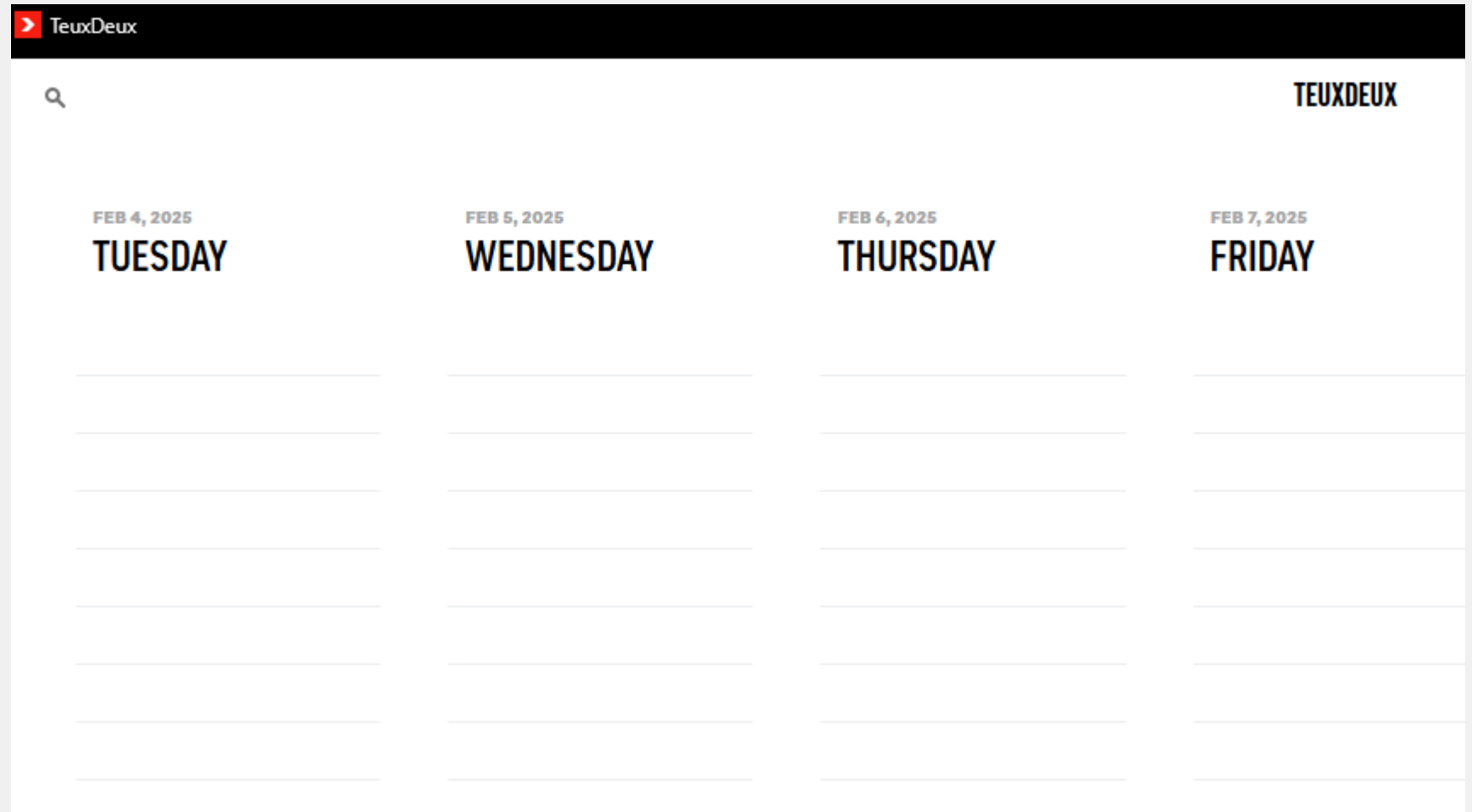
Documentation

- Draw.io
- OneNote



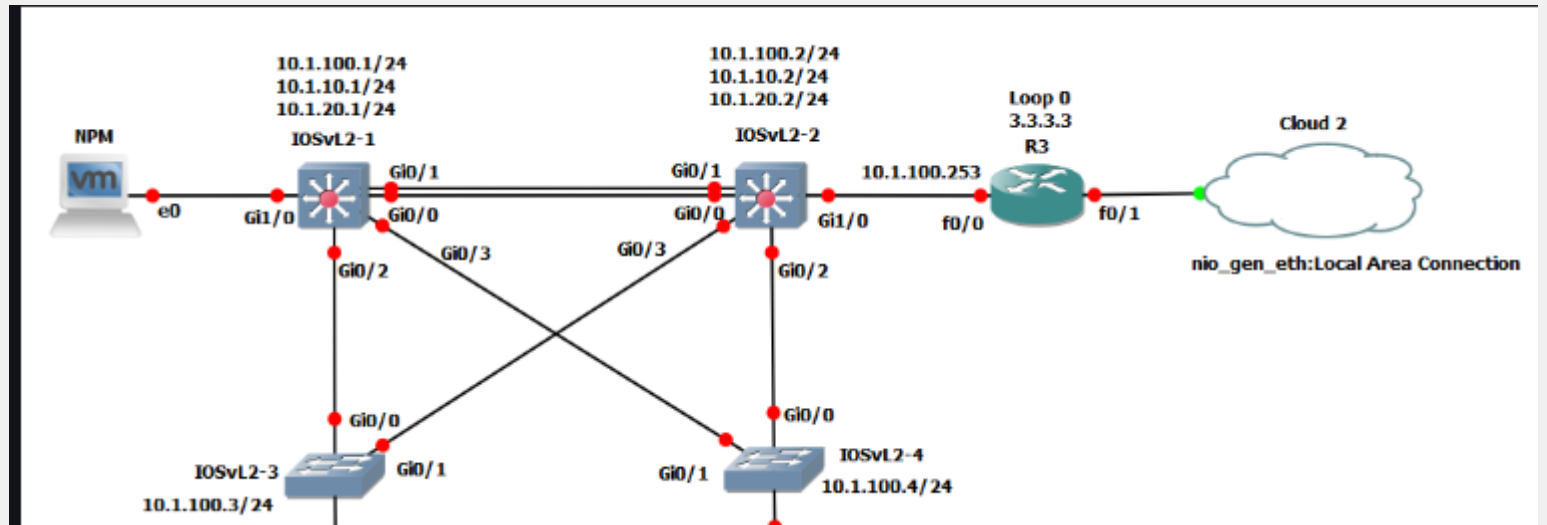
Organization/Study

- Excel trackers
- MS Planner
- OneNote
- TeuxDeux (Paid)
- MS To Do
- Anki
- Pomodoro method



Miscellaneous

- Browser
 - Brave
 - uBlock origin
- Password Manager
 - Bitwarden
- GNS3
 - Fortinet Appliances
 - Cisco router
- PowerToys
 - Fancy Zones
- Region to Share



Resources

CLI Tools

- SecureCRT
 - <https://www.vandyke.com/products/securecrt/>
 - <https://www.vandyke.com/support/scripting/scripting-examples/import-keyword-highlighting-ini-files.html>
- MobaXterm
 - <https://mobaxterm.mobatek.net/>
- Tera Term
 - <https://teratermproject.github.io/index-en.html>

Config File Management

- Notepad++
 - <https://notepad-plus-plus.org/>
- VS Code
 - <https://code.visualstudio.com/>
- Python
 - <https://www.python.org/downloads/windows/>
 - <https://pynet.twb-tech.com/>
- Git
 - <https://git-scm.com/downloads/win>
- GitHub
 - <https://github.com/>
 - <https://github.com/traillD/FortiPublic>



Resources

Documentation

- Draw.io
 - <https://draw.io/>
- OneNote
 - <https://www.onenote.com/>

Organization/Study

- Planner
 - <https://planner.cloud.microsoft/>
- TeuxDeux
 - <https://teuxdeux.com/>
- MS To Do
 - <https://to-do.office.com/tasks/>
- Anki
 - <https://apps.ankiweb.net/>



Resources

Miscellaneous

- Browser
 - <https://brave.com/>
 - <https://ublockorigin.com/>
- Password Manager
 - <https://bitwarden.com/>
- GNS3
 - <https://www.gns3.com/>
 - <https://community.fortinet.com/t5/FortiGate/Technical-Tip-How-to-add-a-FortiGate-VM-into-the-GNS3/ta-p/242132>
- MS PowerToys
 - <https://learn.microsoft.com/en-us/windows/powertoys/>
- Region to Share
 - <https://apps.microsoft.com/detail/9n4066w2r5q4?hl=en-US&gl=US>



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