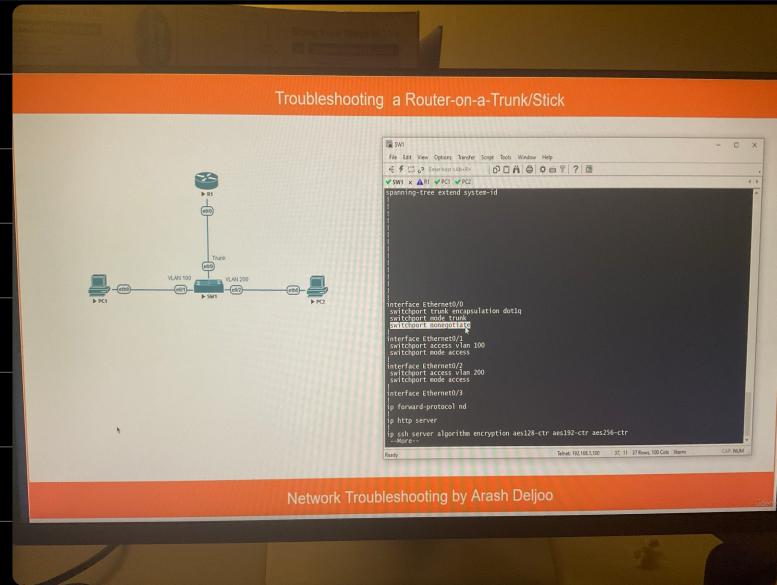


Tb Router on a stick.

in this case it should be on trunk



The terminal window shows the configuration of the router's interfaces. The IP addresses 192.168.100.1 and 192.168.200.1 are highlighted with orange arrows. The configuration includes:

```
redundancy
interface Ethernet0/0
no ip address
duplex auto
interface Ethernet0/0.1
encapsulation dot1Q 100
ip address 192.168.100.1 255.255.255.0
interface Ethernet0/0.2
encapsulation dot1Q 200
ip address 192.168.200.1 255.255.255.0
interface Ethernet0/1
no ip address
shutdown
duplex auto
-More-
```

steps to troubleshoot

- ① verify the problem
- ② ping the default gateway
- ③ get the FP & Mac
- ④ on switch confirm the port

conn where pc is connected using
show mac address-table dynamic.

- ⑤ detected a problem
- ⑥ fix the prob → confirm the changes
- ⑦ update the documentation

① Mismatch on trunk interfaces at Router on stick

switch is set on different isL trunk
if router is set on dot1q

even if you get the same problem make
sure not to jump to the conclusion

Tell me a procedure you follow to resolve an issue

- ① verify the problem
for ex. PC is not able to communicate to PC 2
- ② narrow down the problem
ping the default gateway
- ③ Once it is narrowed down identify the problem in that
- ④ once the problem is detected plan out the changes
- ⑤ Make the necessary changes
- ⑥ verify the change
- ⑦ verify the smooth connection
- ⑧ update the documents
- ⑨ Reply appropriately to the ticket

SVI

To make it a router

ip routing

We can set default gateways for SVI
with

interface vlan 100
ip address {IP} {mask}

SVI - L3 switches to enable or
work as routed port has to

interface g0/0

→ # no switchport

ip address {ip} {mask}

We can verify if the port is routed port or
not using a command

→ show interface g0/0 switchport

Etherchannel

① Scenario - I Mismatch post config

Mismatched Ethch config

modes

- ① 1 Aggregation Control Protocol (LACP)
- ② 2 Port Aggregation Protocol (PAgP)
- ③ 3 ON

They are only compatible with their pairs

en — Port aggregation protocol (PAgP)

① — PAgP Desirable

PAgP Auto

Auto - Auto — No aggae

①

LACP Active

LACP passive



passive x passive — NO
aggregation

②

ON

— Both has to be ON

③ scenario - In appropriate Etherchannel distribution algorithm.

→ show etherchannel load-balance.

To fix the etherchannel issues

① show etherchannel summary

it will show you whether the links are up or suspended (SU) or down (SD) in summary.

P - bundled in port-channel

Etherchannel — once the port channel is created it will be seen by
→ show int brief

To create a Etherchannel

— on all interfaces we do on both SW

switchport mode trunk

switchport trunk encapsulation dot1q

switchport negotiate

channel-group 1 mode passive (LACP)

has to be active on other side

• TO disable
DTP

Layer 3 - Etherchannels on L3switch

To make switch L3 port channels they need to be routed port first → you can do that which no switchport command

okay to set L3 etherchannel
steps

① int range g 1/0/1 - 2

no switchport

channel-group 2 mode ?

base on preference

* # int port-channel 2 *

ip add {ip} {mask}

same on other switch

- so steps of SVI has no trunk commands config.

- 1. # int g0/0
- 2. # no switchport
- 3. # channel-group 2 mode active
- 4. # ip address {ip} {mask}

Create a channel-group 2 mode desirable
then run no switch port command

If you have more than 8 ports in LACP then
those will be put in H (Hot standby mode)

To completely remove the configuration from the
channel-group

- no channel-group!
- for int — default g0/0
- * show etherchannel summary

- Q— Do we use ACL's or firewall only
— Do we have CDP neighbour enabled or disabled

no. of Available ips

$$126 - 32 = 6$$

$$2^6 = 62 \text{ Available ips}$$

To configure ports on router we
need following commands

* interface g0/0/10

→ * encapsulation dot1Q 10

* ip add {IP} {mask}

To config. SVI on switch

* no switchport

* int vlan10

* ip add

* To set ip on L3 switch

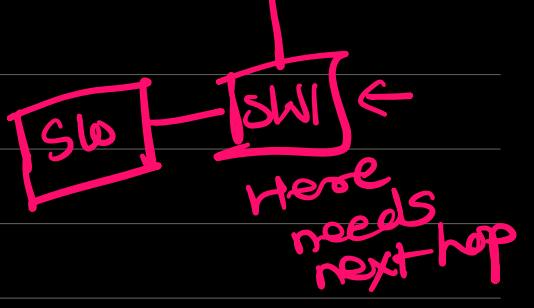
* no switchport

* To enable routing

* ip routing



To add next hop when
that int



int g1/0/2

ip route 0.0.0.0 0.0.0.0 {next-hop-ip}

* setting up VTP

show vtp status

vtp domain name ccna

vlan 10

vlan 20

.....