

January 26, 2020

Part 1: filling in the table

i) R2

I logged into R2 and ran the following commands i ran show ip config

| Interface | IP-Address | OK? | Method | Status | Protocol |
|-----------------------|----------------|-----|--------|--------|----------|
| GigabitEthernet0/0 | 10.255.255.245 | YES | manual | up | up |
| GigabitEthernet0/1 | 10.255.255.249 | YES | manual | up | up |
| GigabitEthernet0/2 | 10.10.10.1 | YES | manual | up | up |
| Serial0/0/0 | 64.100.100.1 | YES | manual | up | up |
| Serial0/0/1 | unassigned | YES | unset | up | up |
| Serial0/0/1.1 | 64.100.200.2 | YES | manual | up | up |
| Vlan1 | unassigned | YES | unset | | |
| administratively down | | | | | down |

I then ran show interfaces

| |
|---|
| GigabitEthernet0/0 is up, line protocol is up (connected) Hardware is CN Gigabit Ethernet, address is 0001.969a.1d01 (bia 0001.969a.1d01) Internet address is 10.255.255.245/30 MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec, reliability 255/255, txload 1/255, rxload 1/255 Encapsulation ARPA, loopback not set Keepalive set (10 sec) Full-duplex, 100Mb/s, media type is RJ45 output flow-control is unsupported, input flow-control is unsupported ARP type: ARPA, ARP Timeout 04:00:00, Last input 00:00:08, output 00:00:05, output hang never Last clearing of "show interface" counters never Input queue: 0/75/0 (size/max/drops); Total output drops: 0 Queueing strategy: fifo Output queue :0/40 (size/max) 5 minute input rate 63 bits/sec, 0 packets/sec 5 minute output rate 65 bits/sec, 0 packets/sec 241 packets input, 16664 bytes, 0 no buffer Received 0 broadcasts, 0 runts, 0 giants, 0 throttles 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort 0 watchdog, 1017 multicast, 0 pause input |
|---|

```
0 input packets with dribble condition detected
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I then ran show running-config

```
Building configuration...

Current configuration : 2258 bytes
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
hostname R2
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
ip cef
no ipv6 cef
username Tier3a password 0 cisco
username administrator password 0 cisco
license udi pid CISC02911/K9 sn FTX15249169
ip ssh version 2
ip domain-name Central
ip host R1 10.255.255.254 10.255.255.246 10.2.0.1
ip host R3 10.255.255.253 10.255.255.250 10.3.0.1
spanning-tree mode pvst
interface GigabitEthernet0/0
 ip address 10.255.255.245 255.255.255.252
 ip ospf priority 255
 duplex auto
 speed auto
interface GigabitEthernet0/1
 ip address 10.255.255.249 255.255.255.252
 ip ospf priority 255
 duplex auto
 speed auto
interface GigabitEthernet0/2
 ip address 10.10.10.1 255.255.255.0
 duplex auto
 speed auto
interface Serial0/0/0
 ip address 64.100.100.1 255.255.255.252
 encapsulation ppp
 ppp authentication pap
 ppp pap sent-username R2 password 0 cisco
```

```

interface Serial0/0/1
  no ip address
  encapsulation frame-relay
  clock rate 2000000
interface Serial0/0/1.1 point-to-point
  ip address 64.100.200.2 255.255.255.252
  frame-relay interface-dlci 202
  clock rate 2000000
interface Vlan1
  no ip address
  shutdown
router ospf 1
  log-adjacency-changes
  passive-interface Serial0/0/0
  passive-interface Serial0/0/1
  network 10.255.255.244 0.0.0.3 area 0
  network 10.255.255.248 0.0.0.3 area 0
  network 10.10.10.0 0.0.0.255 area 0
  network 64.100.100.0 0.0.0.3 area 0
  default-information originate
ip classless
ip route 0.0.0.0 0.0.0.0 64.100.100.2
ip route 0.0.0.0 0.0.0.0 64.100.200.1 200
ip flow-export version 9
ip access-list extended PERMIT_LOCAL
  permit udp any any eq domain
  permit tcp any any eq domain
  permit ip 64.100.200.0 0.0.0.3 any
  permit ip 64.104.223.0 0.0.0.3 any
  permit icmp 64.100.200.0 0.0.0.3 any
  permit icmp 64.104.223.0 0.0.0.3 any
  permit icmp any any echo-reply
  deny ip any any
banner login ^CUsername: administrator
Password: cisco Enable: class^^C
banner motd ^CUsername:administrator
Password:cisco Enable:class^^C
line con 0
line aux 0
line vty 0
  login local
  transport input ssh
line vty 1 4

```

```
no login
end
```

ii) Filling in part of the table

we now have enough information to fill in pieces of the table

| R2 | | connecting device | | |
|-----------|----------------|-------------------|------|-----------|
| interface | address | subnetmask | name | interface |
| G0/0 | 10.255.255.245 | 255.255.255.252 | D1 | Gi 0/1 |
| G0/1 | 10.255.255.249 | 255.255.255.252 | D2 | G 0/1 |
| G0/2 | 10.10.10.1 | 255.255.255.0 | S3 | G 0/1 |

Part 2: S3

i) Gathering data

I continued to do the same for the rest of the switches and interfaces **ii) full table**
here is the completed table

| R2 | | | connecting device | |
|-----------|----------------|-----------------|-------------------|-----------|
| interface | address | subnetmask | name | interface |
| G0/0 | 10.255.255.245 | 255.255.255.252 | D1 | Gi 0/1 |
| G0/1 | 10.255.255.249 | 255.255.255.252 | D2 | G 0/1 |
| G0/2 | 10.10.10.1 | 255.255.255.0 | S3 | G 0/1 |
| S0/0/0 | 64.100.100.1 | 255.255.255.252 | Internet | N/A |
| s0/0/1.1 | 64.100.200.2 | 255.255.255.252 | Intranet | N/A |
| S3 | | | | |
| VLAN 1 | 10.10.10.254 | 255.255.255.0 | N/A | N/A |
| F0/1 | N/A | N/A | Cent. Srvr | NIC |
| G0/1 | N/A | N/A | R2 | G0/2 |
| c. srvr | | | | |
| NIC | 10.10.10.2 | 255.255.255.0 | S3 | F0/1 |
| D1 | | | | |
| VLAN2 | 10.2.0.1 | 255.255.255.0 | N/A | N/A |
| G0/1 | 10.255.255.246 | 255.255.255.252 | R2 | G0/0 |
| G0/2 | 10.255.255.254 | 255.255.255.252 | D2 | G0/2 |
| F0/23 | N/A | N/A | S2 | F0/23 |
| F0/24 | N/A | N/A | S1 | G0/1 |
| S1 | | | | |
| VLAN2 | 10.2.0.2 | 255.255.255.0 | N/A | N/A |
| F0/23 | N/A | N/A | D2 | F0/23 |
| G0/1 | N/A | N/A | D1 | F0/24 |
| D2 | | | | |
| F0/23 | N/A | N/A | S1 | F0/23 |
| F0/24 | 10.3.0.1 | 255.255.255.0 | S3 | G0/1 |
| G0/1 | 10.255.255.250 | 255.255.255.252 | R2 | G0/1 |
| G0/2 | 10.255.255.253 | 255.255.255.252 | D1 | G0/2 |
| S2 | | | | |
| VLAN1 | 10.3.0.1 | 255.255.255.0 | N/A | N/A |
| F0/23 | N/A | N/A | D1 | F0/23 |
| G0/1 | N/A | N/A | D2 | F0/24 |