Lab 2: Distance Vector Routing and Layer 3 Redundancy

CNIT34500-006
Group 2
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Table of Contents

PROCEDURES

The procedures section was broken up into major groups of steps. In the steps, the **buttons pressed** were bolded, *options* were italicized, text entered into console/terminal was typed in `Courier New`, menu navigation and repeated actions were shown with the | pipe | symbol. Repeated steps were shortened by referencing specific information in the Appendix. Varying input is also placed between [brackets].

Phase 1

Removed Unnecessary Configurations

Before beginning, it was necessary to remove any conflicting configurations. As this mainly consisted of RIP and interface IP addresses that were previously configured for a past network design, it was unnecessary to completely wipe devices- instead those settings were simply removed with the following commands.

1. Entered `en` into console terminal
2. Input `conf t`
3. Entered `no router rip`
4. Entered `int [gigabitEthernet 0/1]`
5. Entered `no ip address`
    a. Repeated steps 4-5 on all appropriate interfaces on all devices

Configured IP Addressing

Before adding more advanced configurations to the routers, basic addressing for /30 networks were configured to provide connectivity after all physical connections were made.

Distance Vector Routing

Utilizing /30 networks minimized wasted addresses while interconnecting all routers in the topology.

1. Connected devices with patch cables
    a. See Appendix A for cabling information.
2. Entered `en`
3. Entered `conf t`
4. Input `int [gigabitEthernet 0/1]`
5. Entered `ip address [192.168.254.29] [255.255.255.252]`
    a. Repeated steps 3-4 for all appropriate interfaces on all devices- see Appendix A for interface addressing information.
6. Input `no shut`

Configured Loopback Interfaces

Loopback interfaces were configured on each router and switch to test network connectivity. Since these virtual interfaces were used primarily to ping one another, /32 networks were used to simplify addressing and avoid wasting addresses.

1. Entered `en`
2. Entered `conf t`
3. Entered `interface loopback 0`
4. Entered `ip address [169.254.1.96] [255.255.255.255]`
    a. Repeated steps 1-4 on all devices- see Appendix A for loopback addressing information.

Distance Vector Routing

Configured VLANs on Routers

One requirement for this network design was 4 separate VLANs. Since VLAN 1 serves as the default and is present when no other VLAN configurations are made, VLANs 102, 202, and 302 were added to total 4 VLANs. VLANs were configured on routers by creating sub interfaces and assigning each one a /24 network.

1. Entered `conf t`
2. Entered `int [gigabitEthernet 0/1.102]`
3. Entered `encapsulation dot1q [102]`
4. Entered `ip address [192.168.12.1] [255.255.255.0]`
5. Entered `no shut`
    a. Repeated steps 2-5 for each sub interface on all routers- see Appendix A for VLAN addressing information.

Configured VLANs on Switches

Similarly, VLAN 1 is the default on switches when no VLAN configurations are made. Therefore, VLANs 102, 202, and 302 were added by creating a virtual interface for each VLAN and trunking all connected interfaces. A management IP was also assigned to each VLAN.

1. Entered `conf t`
2. Entered `vlan [102]`
    a. Repeated step 2 for VLANs 102, 202, and 302 on all switches
3. Entered `interface [gigabitEthernet 2/1]`
4. Entered `switchport trunk encapsulation dot1q`
5. Entered `switchport mode trunk`

Distance Vector Routing

6. Entered `switchport trunk allowed vlan 1,102,202,302`
7. Entered `no shut`
    a. Repeated steps 3-7 on all connected interfaces
8. Used `interface vlan [102, 202, 302]` to enter the VLAN interfaces.
9. Typed `ip address 192.168.12.10 255.255.255.0` to add a management IP for VLAN 102.
10. Typed `ip address 192.168.22.10 255.255.255.0` to add a management IP for VLAN 202.
11. Typed `ip address 192.168.32.10 255.255.255.0` to add a management IP for VLAN 302.

Implemented EIGRP

Enhanced Interior Gateway Protocol (EIGRP) was configured on all routers in the network to allow them to exchange routing information with each other. Each instance of EIGRP is assigned an Autonomous System Number (ASN) as shown below- in this case the ASN was 2.

1. Entered `conf t`
2. Entered `router eigrp [2]`
3. Entered `no auto-summary`
4. Entered `network [192.168.254.0] [0.0.0.0]`
5. Entered `redistribute static`
    a. Repeated steps 1-5 on all routers- See Appendix A for EIGRP information.

Distance Vector Routing

Configured NTP

Each device's clock was synchronized to the CIT network by setting the device's Network Time Protocol (NTP) servers to CIT's NTP servers. Unfortunately, the time was still inaccurate, so the timezone and daylight savings were taken into account with the following commands.

1. Entered `conf t`
2. Entered `ntp server 10.2.1.11`
3. Entered `ntp server 10.2.1.12`
4. Entered `clock timezone EST -5`
5. Entered `clock summer-time EDT recurring 2 Sun Mar 2:00 1 Sun Nov 2:00`
6. Entered `ntp update-calendar`
    a. Repeated steps 1-6 on all devices

Implemented HSRP

Layer 3 redundancy was implemented in the network via Hot Standby Router Protocol (HSRP). This protocol allowed multiple routers to host the gateway in case the primary router hosting the gateway failed. HSRP was configured with the steps below.

1. Utilized config mode with using `conf t` on the Cisco 2901a router.
2. Entered `interface [gigabitEthernet 0/1.102, 202, 302]` to enter the VLAN sub interfaces.
3. Used `standby version 2` to set HSRPv2.
4. Entered `standby 1 ip 192.168.12.1` to create an HSRP gateway on VLAN 102.

5. Typed `standby 1 ip 192.168.22.1` to create an HSRP gateway on VLAN 202.
6. Entered `standby 1 ip 192.168.32.1` to create an HSRP gateway on VLAN 302.
    a. Repeated steps 1-6 on all routers.

Phase 2

Fiber Link Aggregation Configuration

By making two identical physical connections between routers, they can function as a single logical channel by using Link Aggregation Control Protocol (LACP) to create a Link Aggregation Group (LAG). This was implemented over two fiber connections with the steps below.

1. Connected two EHWICs and SFPs to the 2901b with two fiber cable connections between the 6504 and itself.

2901b

2. Used `interface Port-channel1` on the 2901b to create a new link aggregation group.
3. Entered `ip address 192.168.254.26 255.255.255.252` to set an IP for the link.
4. Exited that interface and entered the two interfaces that house the fiber cable.
5. Used `channel-group 1` on both linked interfaces (gig0/0/0 and gig0/1/0) to set them to use the Port-channel1 interface.

6504

6. Used `interface Port-channel1` to create a new link aggregation group.
7. Entered `ip address 192.168.254.25 255.255.255.252` to set an IP address for the link.
8. Used `ip nat inside` to allow the route to be NATed outside the network.
9. Exited that interface and entered the two interfaces that housed the fiber cable.

Distance Vector Routing

10. Used `channel-group 1 mode on` on both linked interfaces (gig1/1 and gig1/2).

VRRP Configuration

Functionally similar to HSRP, Virtual Router Redundancy Protocol (VRRP) created layer 3 redundancy in the network in case a router primarily hosting a gateway failed. However, one difference was that the gateway IP hosted by VRRP can be identical to a router's interface IP. VRRP was configured with the steps below.

1. Entered the first VLAN interface on the 2901b using `interface gig0/1.102`.
2. Used `vrrp 102 ip 192.168.42.1` to set a default route to be advertised by VRRP.
3. Entered the gig0/1.202 interface and used `vrrp 202 ip 192.168.52.1`.
4. Navigated to the gig0/1.302 interface and used `vrrp 32 ip 192.168.62.1`.
    a. Repeated steps 1-4 on the Cisco 1921a router.

Configured interfaces on all devices

For all physical uplink and downstream interface on all devices, there need to be IPs associated to handle the traffic. This is done by entering the interface in the configuration and assigning an IP and subnet mask.

1. Entered `interface GigabitEthernet[interface]`
2. Input `ip address [interface address] [subnet mask]`
    a. See Appendix A, Table 7 for interface addressing information
3. Entered `no shut`
    a. Repeated steps 1-3 on all wired interfaces

Distance Vector Routing

4. Pressed **Ctrl+Z**
5. Entered `wr`

Configured NAT on 6504

When possessing a private IP range, the devices needed a way to access the internet through the CIT DNS servers. The way that they were able to communicate was through the usage of NAT. NAT needed to be configured to convert the internal IPs to IPs outside of the network.

1. Entered `ip nat pool g2 10.21.2.3 10.21.2.3 netmask 255.255.255.0` to choose the source IPs.
2. Input `ip nat inside source list 1 interface gigabitethernet1/3 overload` to choose the outbound port.
3. Entered `access-list 1 permit 192.168.0.0 0.0.255.255` to permit all internal IPs to be NATted.
4. Input `interface gigabitethernet1/3`
5. Entered `ip nat outside` to set the outbound interface.
6. Input `interface gigabitethernet3/1`
7. Entered `ip nat inside` to set the inbound interface.
    a. Repeated steps 6-7 on interfaces GigabitEthernet3/3 and GigabitEthernet3/5

Configured IP Addressing on PCs

In order for the PCs to connect to the networking devices, they needed to be set with the correct IPs, subnet masks, default gateways, and DNS servers. This was done through the Windows Control Panel.

1. Logged into PC1 with CIT credentials
2. Opened *Control Panel* from the Windows Start Menu
3. Navigated to *Network and Internet* | *Ethernet0* | *IPv4*
4. Changed the IP configurations
    a. Repeated steps 1-4 on PC3- see Appendix A, Table 9 for IP addressing information
5. Logged into the TFTP Server and clicked the *Ethernet* settings in the top right
6. Entered the *Wired Settings* and changed the IPv4 configurations
    a. See Appendix A, Table 9 for IP addressing information

EIGRP 102 Implementation

A separate instance of EIGRP was created for the right side of the network. This was done with the same commands, but assigning a different ASN- in this case 102.

1. Entered `conf t`
2. Entered `router eigrp 102`
3. Entered `no auto-summary`
4. Entered `network [192.168.254.0] [0.0.0.0]`
5. Entered `redistribute static`

Distance Vector Routing

Repeated steps 1-5 on all routers- See Appendix A for EIGRP information.

Captured Network Traffic on Wireshark

To examine what packets are going through to the end of the network, a Wireshark session was created on PC3. This was to examine the purpose of a passive interface on a router, and how when this is not configured, routing protocol information is sent to the end devices.

1. Logged into PC3
2. Opened *Wireshark* through the Windows Start Menu
3. Selected *Ethernet* network interface as the interface to monitor.
4. Set the capture filter to *RIP* to only see RIP traffic.
5. Examined how the RIP packets navigated through to end devices as there are no passive interfaces configured.

Configured devices to backup to TFTP

The purpose of the TFTP server was to serve as a place to automatically store router configuration pages when the memory was written to. Commands can be utilized in the routers to auto send config pages to the TFTP server over the network.

1. Input `en` in device console terminal
2. Entered `conf t` to enter terminal configuration.
3. Input `archive` to choose where to save machine configurations.
4. Entered `path tftp://192.168.52.12/$h-$t` to set the destination path to the TFTP server.

Distance Vector Routing

5. Input `time-period 360`
6. Pressed **Ctrl+Z**
7. Entered `wr`
    a. Repeated steps 1-7 on all devices

Router IPv6 Configurations

6504

1. Used `ipv6 unicast-routing` to enable ipv6 routing.
2. Used `ipv6 router eigrp 102` and then `eigrp router-id 169.254.1.102` to set an eigrp router ID.
3. Entered each active interface and used `ipv6 enable`.
4. Went into any interface connecting to the right side of the network and entered `ipv6 eigrp 102`.
5. Entered the CIT uplink interface (gig1/3) and entered `ipv6 enable` to enable ipv6 routing outside of the network.

2901b

6. Used `ipv6 unicast-routing` to enable ipv6 routing.
7. Used `ipv6 router eigrp 102` and then `eigrp router-id 169.254.1.103` to set an eigrp router ID.
8. Used `ipv6 route FD00:8:c345:2::14:0/122 gig0/0` to set a default route.
9. Repeated steps 3-4 to allow for IPv6 routing.
10. Added IPv6 addresses on the 3 VLAN interfaces with a /80 mask to allow for pinging (see Appendix A for IPv6 routing tables).

Distance Vector Routing

1921a

11. Used `ipv6 unicast-routing` to enable ipv6 routing.
12. Used `ipv6 router eigrp 102` and then `eigrp router-id 169.254.1.104` to set an eigrp router ID.
13. Used `ipv6 route FD00:8:c345:2::14:0/122 gig0/0` to set a default route.
14. Repeated steps 3-4 to allow for IPv6 routing.
15. Added IPv6 addresses on the 3 VLAN interfaces with a /80 mask to allow for pinging (see Appendix A for IPv6 routing tables).

BIBLOGRAPHY

Cisco. (2014, March 26). *Cisco 1000 series connected grid routers system management software configuration guide - configuring NTP*. Cisco. Retrieved March 21, 2023, from https://www.cisco.com/c/en/us/td/docs/routers/connectedgrid/cgr1000/1_0/software/configuration/guide/sysmgmt/SysMgmt_Book/sm_ntp_cgr1000.html

Cisco. (2015, March 21). *Implementing VRRP*. Cisco. Retrieved March 21, 2023, from https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r4-0/addr_serv/configuration/guide/ic40crs1book_chapter10.html

Cisco. (2021, June 28). *Cisco Wireless Lan Controller Configuration Guide, release 7.4*. Cisco. Retrieved March 21, 2023, from https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED.html

CIT Networking Laboratories: Laboratory Manual. (2019). Purdue University.

D. Russo, personal communication, March 7, 2023

Davis, D. (2009, January 8). *How to configure EIGRP on your cisco router: Petri IT KNOWLEDGEBASE*. Petri IT Knowledgebase How to configure EIGRP on your Cisco router Comments. Retrieved March 21, 2023, from https://petri.com/how-to-configure-eigrp-on-your-cisco-router/

Google. (n.d.). *How to Configure and Verify EIGRP for IPv6*. Google search. Retrieved March 21, 2023, from https://www.google.com/search?client=firefox-b-1-d&q=how%2Bto%2Buse%2Bipv6%2Beigrp

Owokade, A. (2020, November 19). *HSRP configuration on Cisco: From basic to advanced*. RouterFreak. Retrieved March 21, 2023, from https://www.routerfreak.com/how-to-configure-hsrp-on-a-cisco-router/

R. Deadman, personal communication, March 7, 2023

Upravnik. (2022, December 18). *How to configure IPv6*. Study CCNA. Retrieved March 21, 2023, from https://study-ccna.com/how-to-configure-ipv6/

Wireshark. (2022). *Wireshark* (Version 3.6.5) [Computer software]. https://www.wireshark.org/download.html#spelunking

RESULTS

Ultimately, HSRP and VRRP were utilized to implement layer 3 redundancy within the network, which consisted of 4 VLANs- 1, 102, 202, and 302. EIGRP was used to allow routers to exchange routing information, and specific design choices were made to fit the network requirements such as link aggregation with LACP and the implementation of IPv6. Figures 1 and 2 below represent the physical and logical diagrams of the network, respectively.

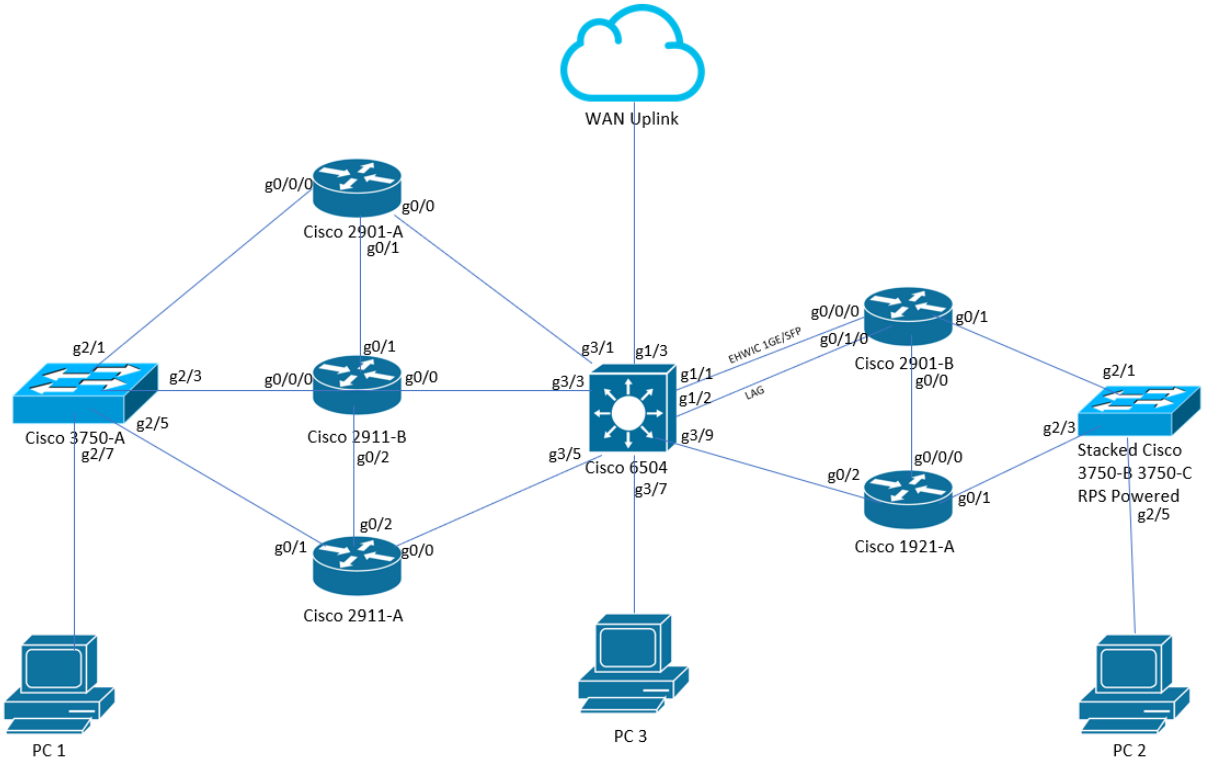

Figure 1: Physical Network Diagram

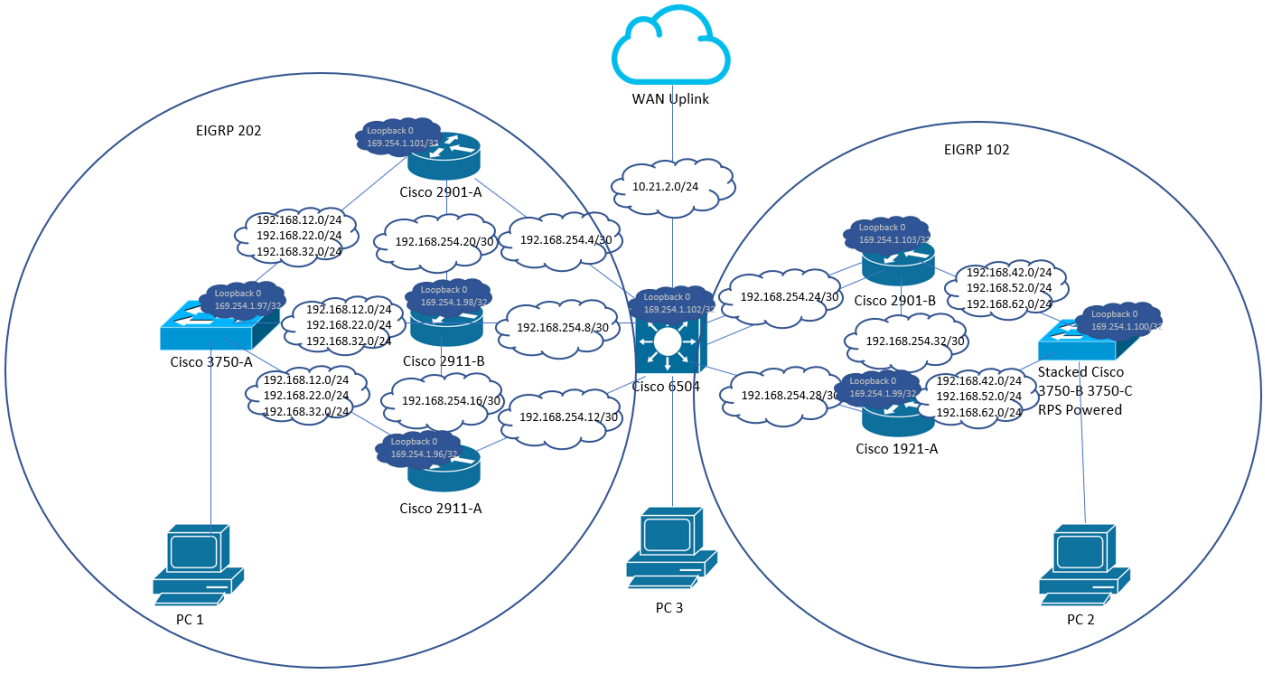

Figure 2: Logical Network Diagram

APPENDIX A: TABLES

Table 1: 2811 Console Cabling

Device	Interface	Cable	Interface	Device
Cisco 2811	Console	Patch Cable	COM1	PC1

Table 2: Octal Console Cabling

Device	Interface	Cable	Interface	Device
TERM Server	ASYNC-16	Octal ASYNC	Console	2911-A
-	-	-	Console	2911-B
-	-	-	Console	2901-A
-	-	-	Console	2901-B
-	-	-	Console	1921-A
-	-	-	Console	3750-A
-	-	-	Console	3750-B
-	-	-	Console	6504

Table 3: Term Server Menu Mapping

Command #	Port Value	Device Name
1	2002	2911r1
2	2003	3750s1
3	2004	2911r2
4	2005	1921r3
5	2006	3750s2
6	2007	2901r4
7	2008	6504r5
8	2009	2901r6

Table 4: IOS Files

Device	Image Filename
2911-A	c2900-universalk9-mz.SPA.157-3.M4b.bin
2911-B	c2900-universalk9-mz.SPA.157-3.M4b.bin
2901-A	c2900-universalk9-mz.SPA.156-3.M8.bin
2901-B	c2900-universalk9-mz.SPA.156-3.M8.bin
3750-A	c3750e-universalk9-mz.152-4.E10.bin
3750-B	c3750e-universalk9-mz.152-4.E10.bin
6504	s72033-adventerprisek9-mz.151-2.SY16.bin

Table 5: Network Cabling Information

Device	Interface	Cable	Interface	Device
6504	g1/3	Patch Cable	Uplink	-
6504	g3/1	Patch Cable	g0/0	2901-A
6504	g3/3	Patch Cable	g0/0	2911-B
6504	g3/5	Patch Cable	g0/0	2911-A
2911-A	g0/2	Patch Cable	g0/2	2911-B
2901-A	g0/1	Patch Cable	g0/1	2911-B
3750-A	g2/1	Patch Cable	g0/0/0	2901-A
3750-A	g2/3	Patch Cable	g0/0/0	2911-B
3750-A	g2/5	Patch Cable	g0/1	2911-A
6504	g1/1 + g1/2	Fiber Optic Cable	g0/0/0+g0/1/0	2901-B
2901-B	g0/1	Patch Cable	g2/1	3750-BC
2901-B	g0/0/0	Patch Cable	g0/0/0	1921-A
1921-A	g0/1	Patch Cable	g2/3	3750-BC
6504	g3/7	Patch Cable	g0/0	1921-A
3750-A	g2/7	Patch Cable	Ethernet	PC1
6504	g3/9	Patch Cable	Ethernet	PC2
3750-BC	g2/5	Patch Cable	Ethernet	PC3

Table 6: Loopback Addressing Information

Device	Loopback Address	Subnet Mask
Term Server	10.10.10.10	255.255.255.255
2901-A	169.254.1.101	255.255.255.255
2901-B	169.254.1.103	255.255.255.255
2911-A	169.254.1.96	255.255.255.255
2911-B	169.254.1.98	255.255.255.255
3750-A	169.254.1.97	255.255.255.255
3750-B	169.254.1.100	255.255.255.255
6504	169.254.1.102	255.255.255.255

Table 7: Interface Addressing Information

Device	Interface	IP Address	Subnet Mask
6504	g1/3	10.21.2.3	255.255.255.0
	g3/1	192.168.254.5	255.255.255.252
	g3/3	192.l68.254.9	255.255.255.252
	g3/5	192.168.254.13	255.255.255.0
	g3/7	192.168.254.29	255.255.255.252
	Port-channel1	192.168.254.25	255.255.255.252

2911-A	g0/0	192.168.254.14	255.255.255.252
	g0/1.102	192.168.12.4	255.255.255.0
	g0/1.202	192.168.22.4	255.255.255.0
	g0/1.302	192.168.32.4	255.255.255.0
	g0/2	192.168.254.17	255.255.255.252
2911-B	g0/0	192.168.254.10	255.255.255.252
	g0/1	192.168.254.22	255.255.255.252
	g0/2	192.168.254.18	255.255.255.252
	g0/0/0.102	192.168.12.3	255.255.255.0
	g0/0/0.202	192.168.22.3	255.255.255.0
	g0/0/0.302	192.168.32.3	255.255.255.0
2901-A	g0/0	192.168.254.6	255.255.255.252
	g0/1	192.168.254.21	255.255.255.252
	g0/0/0.102	192.168.12.2	255.255.255.0
	g0/0/0.202	192.168.22.2	255.255.255.0
	g0/0/0.302	192.168.32.2	255.255.255.0
2901-B	g0/0	192.168.254.33	255.255.255.252
	Port-channel1	192.168.254.26	255.255.255.252
	g0/1.102	192.168.42.2	255.255.255.0
	g0/1.202	192.168.52.2	255.255.255.0
	g0/1.302	192.168.62.2	255.255.255.0
1921-A	g0/0	192.168.254.30	255.255.255.252
	g0/0/0	192.168.254.34	255.255.255.252

g0/1.102	192.168.42.3	255.255.255.252
g0/1.202	192.168.52.3	255.255.255.252
g0/1.302	192.168.62.3	255.255.255.252

Table 8: EGIRP network information

Device	EIGRP Network
6504 AS 2	169.254.1.0
	192.168.1.0
	192.168.{42,52,62}.0
6504 AS 102	192.168.254.{0,24,28,32}
	169.254.1.0
	192.168.{12,22,32}.0
	192.168.254.{4,8,12}
	192.168.1.0
2911-A	169.254.1.0
	192.168.{12,22,32}.0
	192.168.254.{12,16}
2911-B	169.254.1.0
	192.168.{12,22,32}.0
	192.168.254.{8,16,20}
2901-A	169.254.1.0

	192.168.{12,22,32}.0
	192.168.254.{4,20}
2901-B	169.254.1.0
	192.168.1.252
	192.168.{42,52,62}.0
	192.168.254.{24,32}
1921-A	169.254.1.0
	192.168.1.0
	192.168.{28,32,42,52,62,254}.0

Table 9: PC IP Addressing Information

Device	IP Address	Subnet Mask	Gateway	DNS Servers
PC1	192.168.21.12	255.255.255.0	192.168.21.1	10.2.1.11, 10.2.1.12
PC2	192.168.52.12	255.255.255.0	192.168.52.1	10.2.1.11, 10.2.1.12
PC3	192.168.62.12	255.255.255.0	192.168.62.1	10.2.1.11, 10.2.1.12

Table 10: IPv6 Interface Addressing Information

Device	Interface	IP Address	Subnet Mask
1921A	g0/1.102	FD00:8:C345:2:10::	/80
	g0/1.202	FD00:8:C345:2:11::	/80

	g0/1.302	FD00:8:C345:2:12::	/80
2901B	g0/1.102	FD00:8:C345:2:10::	/80
	g0/1.202	FD00:8:C345:2:11::	/80
	g0/1.302	FD00:8:C345:2:12::	/80
6504	g1/3	FD00:8:C345:2::2	/80

APPENDIX B: ROUTER AND SWITCH CONFIGURATIONS

This section contains a full copy of all configured options in their final form from each device on the network.

2811 Term Server

```
Current configuration : 3620 bytes

 Last configuration change at 21:51:31 UTC Wed Mar 8 2023 by g2
version 15.1
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption

hostname G2TermServer

boot-start-marker
boot-end-marker

no aaa new-model

dot11 syslog
ip source-route
```

```
ip cef

ip domain name cit.lcl
ip host 2911r1 2002 10.10.10.10
ip host 3750s1 2003 10.10.10.10
ip host 2911r2 2004 10.10.10.10
ip host 1921r3 2005 10.10.10.10
ip host 3750s2 2006 10.10.10.10
ip host 2901r4 2007 10.10.10.10
ip host 6504r5 2008 10.10.10.10
ip host 2901r6 2009 10.10.10.10
no ipv6 cef

multilink bundle-name authenticated

voice-card 0

crypto pki token default removal timeout 0

license udi pid CISCO2811 sn FTX1045A0TL
archive
 path tftp://192.168.52.12/$h-$t
```

```
 time-period 360
username g2 password 7 10420F1C0D

redundancy

ip ssh version 1

interface Loopback0
 ip address 10.10.10.10 255.255.255.255

interface FastEthernet0/0
 ip address 10.21.2.2 255.255.255.0
 duplex auto
 speed auto

interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto

interface Async0/0/0
 no ip address
```

```
 encapsulation slip


[shutdown interfaces removed for brevity]


ip forward-protocol nd
no ip http server
no ip http secure-server


ip route 0.0.0.0 0.0.0.0 10.21.2.1


menu cisco title ^C
============================================================
Welcome Laura/Ethan. Another day, another 345 lab :(
To exit, CTRL+SHIFT+6 then press x.
============================================================
^C
menu cisco prompt ^C
Select an option
^C
menu cisco text e menu-exit
menu cisco command e menu-exit
menu cisco text q disconnect from term server
menu cisco command q exit
```

menu cisco text 1 login to 2911r1

menu cisco command 1 telnet 10.10.10.10 2002

menu cisco text 2 login to 3750s1

menu cisco command 2 telnet 10.10.10.10 2003

menu cisco text 3 login to 2911r2

menu cisco command 3 telnet 10.10.10.10 2004

menu cisco text 4 login to 1921r3

menu cisco command 4 telnet 10.10.10.10 2005

menu cisco text 5 login to 3750s2

menu cisco command 5 telnet 10.10.10.10 2006

menu cisco text 6 login to 2901r4

menu cisco command 6 telnet 10.10.10.10 2007

menu cisco text 7 login to 6504r5

menu cisco command 7 telnet 10.10.10.10 2008

menu cisco text 8 login to 2901r6

menu cisco command 8 telnet 10.10.10.10 2009

menu cisco line-mode

```
control-plane

mgcp profile default

line con 0
 password 7 060A092444
 login local
 no exec
line aux 0
 login local
 no exec
transport input telnet
line 0/0/14 0/0/15
 transport input telnet
line vty 0 4
 password 7 141B140E04
 login local
 transport input ssh

scheduler allocate 20000 1000
end
```

2901A

```
Current configuration : 2424 bytes

 Last configuration change at 12:56:06 EST Wed Mar 8 2023
 NVRAM config last updated at 11:34:07 EST Wed Mar 8 2023

version 15.6
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption

hostname c345-g2-2901a

boot-start-marker
boot system tftp c2900-universalk9-mz.SPA.156-3.M8.bin 255.255.255.255
boot-end-marker

enable secret 5 $1$zQFH$7LfOOZTe5pMeZFuW2KiEh.

no aaa new-model
clock timezone EST -4 0
clock summer-time EDT recurring
```

```
ip domain name cit.lcl
ip cef
ipv6 unicast-routing
ipv6 cef
multilink bundle-name authenticated

license udi pid CISCO2901/K9 sn FTX164583HE

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360
vtp mode transparent
username g2 password 7 060A092444

redundancy

interface Loopback0
 ip address 169.254.1.101 255.255.255.255

interface Embedded-Service-Engine0/0
 no ip address
 shutdown
```

```
interface GigabitEthernet0/0
 ip address 192.168.254.6 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/1
 ip address 192.168.254.21 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/0/0
 no ip address
 duplex auto
 speed auto

interface GigabitEthernet0/0/0.102
 description "VLAN 102 Subint"
 encapsulation dot1Q 102
 ip address 192.168.12.2 255.255.255.0
 standby version 2
 standby 1 ip 192.168.12.1
 standby 1 priority 110
```

```
interface GigabitEthernet0/0/0.202
 description "VLAN 202 Subint"
 encapsulation dot1Q 202
 ip address 192.168.22.2 255.255.255.0
 standby version 2
 standby 1 ip 192.168.22.1

interface GigabitEthernet0/0/0.302
 description "VLAN 302 Subint"
 encapsulation dot1Q 302
 ip address 192.168.32.2 255.255.255.0
 standby version 2
 standby 1 ip 192.168.32.1

router eigrp 2
 network 169.254.1.0 0.0.0.255
 network 192.168.12.0
 network 192.168.22.0
 network 192.168.32.0
 network 192.168.254.4 0.0.0.3
 network 192.168.254.20 0.0.0.3
```

```
ip forward-protocol nd


no ip http server
no ip http secure-server


ip ssh version 2


control-plane


line con 0
 password 7 04570D0307
 login
line aux 0
line 2
 no activation-character
 no exec
 transport preferred none
 transport output pad telnet rlogin lapb-ta mop udptn v120 ssh
 stopbits 1
line vty 0 4
 password 7 0703274946
 login local
 transport input ssh
```

scheduler allocate 20000 1000

ntp update-calendar

ntp server 10.2.1.11

ntp server 10.2.1.12

End

2901B

Current configuration : 3167 bytes

Last configuration change at 12:48:53 EDT Mon Mar 20 2023

NVRAM config last updated at 11:34:59 EST Wed Mar 8 2023

version 15.7

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

hostname c345-g2-2901b

boot-start-marker

boot-end-marker

enable secret 5 1tUao$phATYwqrjIFlN4GKfGobf/

no aaa new-model

clock timezone EST -4 0

clock summer-time EDT recurring

```
ip domain name cit.lcl
ip cef
ipv6 unicast-routing
ipv6 cef

multilink bundle-name authenticated

voice-card 0

vxml logging-tag
license udi pid CISCO2901/K9 sn FTX1502802W
license boot module c2900 technology-package datak9
hw-module pvdm 0/0

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360
username g2 password 7 020A025E03

redundancy

interface Loopback0
```

```
 ip address 169.254.1.103 255.255.255.255

interface Port-channel1
 description "Fiber to 6504"
 ip address 192.168.254.26 255.255.255.252
 ipv6 enable
 ipv6 eigrp 102

interface Embedded-Service-Engine0/0
 no ip address
 shutdown

interface GigabitEthernet0/0
 description "1921a Link"
 ip address 192.168.254.33 255.255.255.252
 duplex auto
 speed auto
 ipv6 enable
 ipv6 eigrp 102

interface GigabitEthernet0/1
 no ip address
 duplex auto
```

```
 speed auto

interface GigabitEthernet0/1.102
 encapsulation dot1Q 102
 ip address 192.168.42.2 255.255.255.0
 ipv6 address FD00:8:C345:2:10::/80 eui-64
 ipv6 enable
 ipv6 eigrp 102
 vrrp 102 ip 192.168.42.1

interface GigabitEthernet0/1.202
 encapsulation dot1Q 202
 ip address 192.168.52.2 255.255.255.0
 ipv6 address FD00:8:C345:2:11::/80 eui-64
 ipv6 enable
 ipv6 eigrp 102
 vrrp 202 ip 192.168.52.1

interface GigabitEthernet0/1.302
 encapsulation dot1Q 302
 ip address 192.168.62.2 255.255.255.0
 ipv6 address FD00:8:C345:2:12::/80 eui-64
 ipv6 enable
```

```
 ipv6 eigrp 102
 vrrp 32 ip 192.168.62.1

interface GigabitEthernet0/0/0
 no ip address
 duplex auto
 speed auto
 channel-group 1

interface GigabitEthernet0/1/0
 no ip address
 channel-group 1

router eigrp 102
 network 169.254.1.0 0.0.0.255
 network 169.254.1.100 0.0.0.0
 network 169.254.1.103 0.0.0.0
 network 192.168.1.252 0.0.0.3
 network 192.168.42.0
 network 192.168.52.0
 network 192.168.62.0
 network 192.168.254.24 0.0.0.3
 network 192.168.254.32 0.0.0.3
```

```
 eigrp router-id 192.168.1.254

ip forward-protocol nd

no ip http server
no ip http secure-server

ip ssh version 2

ipv6 router eigrp 102
 eigrp router-id 169.254.1.103

control-plane

mgcp behavior rsip-range tgcp-only
mgcp behavior comedia-role none
mgcp behavior comedia-check-media-src disable
mgcp behavior comedia-sdp-force disable

mgcp profile default

gatekeeper
 shutdown
```

```
 vstack

line con 0
 password 7 11051F001F
 login
line aux 0
line 2
 no activation-character
 no exec
 transport preferred none
 transport output pad telnet rlogin lapb-ta mop udptn v120 ssh
 stopbits 1
line vty 0 4
 password 7 0507000A29
 login local
 transport input ssh

scheduler allocate 20000 1000
ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12
```

End

2911a

Current configuration : 2790 bytes

Last configuration change at 11:46:21 EST Wed Mar 8 2023

NVRAM config last updated at 11:36:17 EST Wed Mar 8 2023

version 15.7

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

hostname c345-g2-2911a

boot-start-marker

boot system flash:c2900-universalk9-mz.SPA.157-3.M2.bin

boot system flash sup-bootdisk:c2900-universalk9-mz.SPA.157-3.M2.bin

boot-end-marker

enable secret 5 1QxLn$VkuLlYLMcCzYNTVo1CywS/

no aaa new-model

```
clock timezone EST -4 0
clock summer-time EDT recurring

ip domain name cit.lcl
ip cef
no ipv6 cef
multilink bundle-name authenticated

voice-card 0

vxml logging-tag
license udi pid CISCO2911/K9 sn FTX1631AKEZ

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360
username g2 password 7 000815030C

redundancy

interface Loopback0
 ip address 169.254.1.96 255.255.255.255
```

```
interface Embedded-Service-Engine0/0
 no ip address
 shutdown

interface GigabitEthernet0/0
 ip address 192.168.254.14 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto

interface GigabitEthernet0/1.102
 description "VLAN 102 Subint"
 encapsulation dot1Q 102
 ip address 192.168.12.4 255.255.255.0
 standby version 2
 standby 1 ip 192.168.12.1

interface GigabitEthernet0/1.202
 description "VLAN 202 Subint"
```

```
 encapsulation dot1Q 202
 ip address 192.168.22.4 255.255.255.0
 standby version 2
 standby 1 ip 192.168.22.1
 standby 1 priority 90

interface GigabitEthernet0/1.302
 description "VLAN 302 subint"
 encapsulation dot1Q 302
 ip address 192.168.32.4 255.255.255.0
 standby version 2
 standby 1 ip 192.168.32.1
 standby 1 priority 110

interface GigabitEthernet0/2
 ip address 192.168.254.17 255.255.255.252
 duplex auto
 speed auto

router eigrp 2
 network 169.254.1.0 0.0.0.255
 network 192.168.12.0
 network 192.168.22.0
```

```
 network 192.168.32.0
 network 192.168.254.12 0.0.0.3
 network 192.168.254.16 0.0.0.3

ip forward-protocol nd

no ip http server
no ip http secure-server

ip ssh version 2

ipv6 ioam timestamp

control-plane

mgcp behavior rsip-range tgcp-only
mgcp behavior comedia-role none
mgcp behavior comedia-check-media-src disable
mgcp behavior comedia-sdp-force disable

mgcp profile default

gatekeeper
```

```
 shutdown



 vstack


line con 0
 password 7 03085D0E0E
 login
line aux 0
line 2
 no activation-character
 no exec
 transport preferred none
 transport output lat pad telnet rlogin lapb-ta mop udptn v120 ssh
 stopbits 1
line vty 0 4
 password 7 082D4A4B01
 login local
 transport input ssh


scheduler allocate 20000 1000
ntp update-calendar
ntp server 10.2.1.11
```

```
ntp server 10.2.1.12


End
```

2911b

Current configuration : 2607 bytes

Last configuration change at 11:46:49 EST Wed Mar 8 2023

NVRAM config last updated at 11:36:45 EST Wed Mar 8 2023

version 15.7

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

hostname c345-g2-2911b

boot-start-marker

boot system tftp c2900-universalk9-mz.SPA.157-3.M2.bin 255.255.255.255

boot system flash sup-bootdisk:c2900-universalk9-mz.SPA.157-3.M2.bin

boot-end-marker

enable secret 5 $1$8mf.$cbHFU8GPoh9eIwV0.Gde81

no aaa new-model

clock timezone EST -4 0

```
clock summer-time EDT recurring


ip domain name cit.lcl
ip cef
no ipv6 cef


multilink bundle-name authenticated


license udi pid CISCO2911/K9 sn FTX1821ALC6


archive
 path tftp://192.168.52.12/$h-$t
 time-period 360
username g2 password 7 1309111703


redundancy


interface Loopback0
 ip address 169.254.1.98 255.255.255.255


interface Embedded-Service-Engine0/0
 no ip address
 shutdown
```

```
interface GigabitEthernet0/0
 ip address 192.168.254.10 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/1
 ip address 192.168.254.22 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/2
 ip address 192.168.254.18 255.255.255.252
 duplex auto
 speed auto

interface GigabitEthernet0/0/0
 no ip address
 duplex auto
 speed auto

interface GigabitEthernet0/0/0.102
 description "VLAN 102  Subint"
```

```
 encapsulation dot1Q 102
 ip address 192.168.12.3 255.255.255.0
 standby version 2
 standby 1 ip 192.168.12.1

interface GigabitEthernet0/0/0.202
 description "VLAN 202 Subint"
 encapsulation dot1Q 202
 ip address 192.168.22.3 255.255.255.0
 standby version 2
 standby 1 ip 192.168.22.1
 standby 1 priority 110

interface GigabitEthernet0/0/0.302
 description "VLAN 302 Subint"
 encapsulation dot1Q 302
 ip address 192.168.32.3 255.255.255.0
 standby version 2
 standby 1 ip 192.168.32.1

router eigrp 2
 network 169.254.1.0 0.0.0.255
 network 192.168.12.0
```

```
 network 192.168.22.0
 network 192.168.32.0
 network 192.168.254.8 0.0.0.3
 network 192.168.254.16 0.0.0.3
 network 192.168.254.20 0.0.0.3

ip forward-protocol nd

no ip http server
no ip http secure-server

ip ssh version 2

control-plane

line con 0
 password 7 141B140E04
 login
line aux 0
line 2
 no activation-character
 no exec
 transport preferred none
```

```
 transport output pad telnet rlogin lapb-ta mop udptn v120 ssh
 stopbits 1
line vty 0 4
 password 7 060A092444
 login local
 transport input ssh

scheduler allocate 20000 1000
ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12

End
```

1921a

Current configuration : 2746 bytes

Last configuration change at 13:12:05 EDT Mon Mar 20 2023

NVRAM config last updated at 12:19:37 EST Wed Mar 8 2023

version 15.4

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

hostname c345-g2-1921a

boot-start-marker

boot-end-marker

enable secret 5 1X/Vz$D86f5w3QWXM4JYFHi6Swt/

no aaa new-model

clock timezone EST -4 0

clock summer-time EDT recurring

```
ip domain name cit.lcl
ip cef
ipv6 unicast-routing
ipv6 cef

multilink bundle-name authenticated

cts logging verbose

license udi pid CISCO1921/K9 sn FJC2144L1V3

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360
vtp mode transparent
username g2 password 7 0507000A29

redundancy

ip ssh version 2
```

```
interface Loopback0
 ip address 169.254.1.99 255.255.255.255

interface Embedded-Service-Engine0/0
 no ip address
 shutdown

interface GigabitEthernet0/0
 description "6504 Uplink"
 ip address 192.168.254.30 255.255.255.252
 duplex auto
 speed auto
 ipv6 enable
 ipv6 eigrp 102

interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto

interface GigabitEthernet0/1.102
 encapsulation dot1Q 102
 ip address 192.168.42.3 255.255.255.0
```

```
 ipv6 address FD00:8:C345:2:10::/80 eui-64
 ipv6 enable
 ipv6 eigrp 102
 vrrp 102 ip 192.168.42.1

interface GigabitEthernet0/1.202
 encapsulation dot1Q 202
 ip address 192.168.52.3 255.255.255.0
 ipv6 address FD00:8:C345:2:11::/80 eui-64
 ipv6 enable
 ipv6 eigrp 102
 vrrp 202 ip 192.168.52.1

interface GigabitEthernet0/1.302
 encapsulation dot1Q 302
 ip address 192.168.62.3 255.255.255.0
 ipv6 address FD00:8:C345:2:12::/80 eui-64
 ipv6 enable
 ipv6 eigrp 102
 vrrp 32 ip 192.168.62.1

interface GigabitEthernet0/0/0
 description "2901b link"
```

```
 ip address 192.168.254.34 255.255.255.252
 duplex auto
 speed auto
 ipv6 enable
 ipv6 eigrp 102

router eigrp 102
 network 169.254.1.0 0.0.0.255
 network 192.168.1.0
 network 192.168.28.0 0.0.0.3
 network 192.168.32.0 0.0.0.3
 network 192.168.42.0
 network 192.168.52.0
 network 192.168.62.0
 network 192.168.254.0

ip forward-protocol nd

no ip http server
no ip http secure-server

ipv6 route FD00:8:C345:2::14:0/122 GigabitEthernet0/0
ipv6 router eigrp 2
```

```
 eigrp router-id 192.168.1.253

ipv6 router eigrp 102
 eigrp router-id 169.254.1.99

control-plane

line con 0
 password 7 060A092444
 login
line aux 0
line 2
 no activation-character
 no exec
 transport preferred none
 transport output pad telnet rlogin lapb-ta mop udptn v120 ssh
 stopbits 1
line vty 0 4
 password 7 000815030C
 login local
 transport input ssh

scheduler allocate 20000 1000
```

```
ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12


End
```

6504

Current configuration : 6609 bytes

Last configuration change at 12:17:49 EST Wed Mar 8 2023 by g2

NVRAM config last updated at 11:31:12 EST Wed Mar 8 2023 by g2

version 15.1

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

service counters max age 5

hostname c345-g2-6504

boot-start-marker

boot system tftp s72033-adventerprisek9-mz.151-2.SY16.bin 255.255.255.255

boot system flash:s72033-adventerprisek9-mz.151-2.SY16.bin

boot system flash sup-bootdisk:s72033-adventerprisek9-mz.151-2.SY16.bin

boot-end-marker

```
username g2 password 7 11051F001F
no aaa new-model
clock timezone EST -4
clock summer-time EDT recurring

vtp mode transparent

ip domain-name cit.lcl
ipv6 unicast-routing
mls netflow interface

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360

spanning-tree mode pvst
spanning-tree extend system-id

redundancy
 main-cpu
  auto-sync running-config
 mode sso
```

```
vlan internal allocation policy ascending
vlan access-log ratelimit 2000

vlan 102
 name vlan102

vlan 202
 name vlan202

vlan 302
 name vlan302

ip ssh version 2

interface Loopback0
 ip address 169.254.1.102 255.255.255.255

interface Port-channel1
 ip address 192.168.254.25 255.255.255.252
 ip nat inside
 ipv6 enable
 ipv6 eigrp 102
```

```
interface GigabitEthernet1/1
 no ip address
 channel-group 1 mode on

interface GigabitEthernet1/2
 no ip address
 channel-group 1 mode on

interface GigabitEthernet1/3
 description "CIT Uplink"
 ip address 10.21.2.3 255.255.255.0
 ip nat outside
 ipv6 address FD00:8:C345:2::2/64
 ipv6 enable

interface TenGigabitEthernet1/4
 no ip address
 shutdown

[shutdown interfaces removed for brevity]

interface GigabitEthernet3/1
 ip address 192.168.254.5 255.255.255.252
```

```
 ip nat inside
 ipv6 enable
 ipv6 eigrp 102

interface GigabitEthernet3/2
 no ip address
 shutdown

interface GigabitEthernet3/3
 ip address 192.168.254.9 255.255.255.252
 ip nat inside
 ipv6 enable
 ipv6 eigrp 102

interface GigabitEthernet3/4
 no ip address
 shutdown

interface GigabitEthernet3/5
 ip address 192.168.254.13 255.255.255.252
 ip nat inside
 ipv6 enable
 ipv6 eigrp 102
```

```
interface GigabitEthernet3/5.102

interface GigabitEthernet3/6
 no ip address
 shutdown

interface GigabitEthernet3/7
 ip address 192.168.254.29 255.255.255.252
 ip nat inside
 ipv6 enable
 ipv6 eigrp 102

interface GigabitEthernet3/8
 no ip address
 shutdown

interface GigabitEthernet3/9
 description "PC3"
 switchport
 switchport access vlan 302
 switchport mode access
```

```
interface GigabitEthernet3/10
 no ip address
 shutdown

[shutdown interfaces removed for brevity]

interface Vlan1
no ip address

interface Vlan302
 ip address 192.168.72.1 255.255.255.0
 ip nat inside

router eigrp 2
 network 169.254.1.0 0.0.0.255
 network 192.168.1.0
 network 192.168.12.0
 network 192.168.22.0
 network 192.168.32.0
 network 192.168.254.4 0.0.0.3
 network 192.168.254.8 0.0.0.3
 network 192.168.254.12 0.0.0.3
 redistribute static
```

```
router eigrp 102
 network 169.254.1.0 0.0.0.255
 network 192.168.1.0
 network 192.168.42.0
 network 192.168.52.0
 network 192.168.62.0
 network 192.168.254.0
 network 192.168.254.24 0.0.0.3
 network 192.168.254.28 0.0.0.3
 network 192.168.254.32 0.0.0.3
 redistribute static

ip nat pool g2 10.21.2.3 10.21.2.3 netmask 255.255.255.0
ip nat inside source list 1 interface GigabitEthernet1/3 overload
ip forward-protocol nd
no ip http server
no ip http secure-server

ip route 0.0.0.0 0.0.0.0 10.21.2.1

access-list 1 permit 192.168.0.0 0.0.255.255
ipv6 router eigrp 102
```

```
 eigrp router-id 169.254.1.102


control-plane


dial-peer cor custom


line con 0
 password 7 082D4A4B01
 login
line vty 0 4
 password 7 082D4A4B01
 login local
 transport input ssh


monitor session 1 source interface Gi3/13
ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12
mac address-table aging-time 480
diagnostic bootup level minimal


End
```

3750A

Current configuration : 5402 bytes

Last configuration change at 11:37:18 EST Wed Mar 8 2023

NVRAM config last updated at 10:37:18 EST Wed Mar 8 2023

version 15.2

no service pad

service timestamps debug datetime msec

service timestamps log datetime msec

service password-encryption

hostname c345-g2-3750a

boot-start-marker

boot-end-marker

enable secret 5 1a5dU$aAStU1.s0/eciOl3cDX0F.

no aaa new-model

clock timezone EST -5 0

clock summer-time EDT recurring

```
switch 2 provision ws-c3750e-48pd
system mtu routing 1500

ip domain-name cit.lcl
vtp mode transparent

crypto pki trustpoint TP-self-signed-201719040
 enrollment selfsigned
 subject-name cn=IOS-Self-Signed-Certificate-201719040
 revocation-check none
 rsakeypair TP-self-signed-201719040

crypto pki certificate chain TP-self-signed-201719040
 certificate self-signed 01
  30820229 30820192 A0030201 02020101 300D0609 2A864886 F70D0101 05050030
  30312E30 2C060355 04031325 494F532D 53656C66 2D536967 6E65642D 43657274
  69666963 6174652D 32303137 31393034 30301E17 0D303630 31303230 30303134
  365A170D 32303031 30313030 30303030 5A303031 2E302C06 03550403 1325494F
  532D5365 6C662D53 69676E65 642D4365 72746966 69636174 652D3230 31373139
  30343030 819F300D 06092A86 4886F70D 01010105 0003818D 00308189 02818100
  AAACE990 F4105417 16BEC1E0 EE5CFBB3 D8CAF358 CF846D8D 4FD61934
F49706B8
```

61164C1B 1D72A338 072492FB E38B293A D0EB4120 94BE405E 7D8CF790 88D6EC7D

62672A73 C312741A 4B2112F8 4454C949 D94495A3 1CE68757 8A6ACB20 90419A8C

8DE7B3B7 89D5C121 FA5C116F 27DCAA00 BCC3FB4A 72D38EC4 E78366E3 D8C2840B

02030100 01A35330 51300F06 03551D13 0101FF04 05300301 01FF301F 0603551D

23041830 16801423 6E503AC2 476FC5D5 7646CFEF 4BEC7D13 A84C6830 1D060355

1D0E0416 0414236E 503AC247 6FC5D576 46CFEF4B EC7D13A8 4C68300D 06092A86

4886F70D 01010505 00038181 00472BC0 6EA3F00E D3CD89BD 449DDBA5 87828FB9

56C03FBF D305A1EF A71CC871 E5B49B66 60A2F314 CEC3B4AF 9DEEE786 829D0822

EA7089FB 84BB82D0 1F5DC319 72FE18F8 6C12E9D2 046460F2 2F9B295B FE5E8005

453A0E14 43A0E8AA 309CEBDD 2D657D74 DA50910A 5081560C D3DC9427 3F920826

3B3C51B5 EB9E8DFA F53D4EBB 1F

quit

archive

path tftp://192.168.52.12/$h-$t

```
 time-period 360

spanning-tree mode rapid-pvst
spanning-tree extend system-id

vlan internal allocation policy ascending

vlan 102,202,302

interface Loopback0
 ip address 169.254.1.97 255.255.255.255

interface FastEthernet0
 no ip address

interface GigabitEthernet2/0/1
 description "2901a link"
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
 switchport mode trunk

interface GigabitEthernet2/0/2
```

```
interface GigabitEthernet2/0/3
 description "2911b"
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
 switchport mode trunk

interface GigabitEthernet2/0/4

interface GigabitEthernet2/0/5
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
 switchport mode trunk

interface GigabitEthernet2/0/6

interface GigabitEthernet2/0/7
 description "PC1"
 switchport access vlan 102
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
 switchport mode access

interface GigabitEthernet2/0/8
```

```
[shutdown interfaces removed for brevity]

interface Vlan1
 ip address 192.168.5.2 255.255.255.0

interface Vlan102
 ip address 192.168.12.10 255.255.255.0

interface Vlan202
 ip address 192.168.22.10 255.255.255.0

interface Vlan302
 ip address 192.168.32.10 255.255.255.0

ip default-gateway 192.168.5.1
ip forward-protocol nd

ip http server
ip http secure-server
ip ssh version 2
```

```
line con 0
 password 7 0940480C11
 login
line vty 0 4
 password 7 0940480C11
 login local
 transport input ssh
line vty 5 15
 login

ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12
ntp server tick.cit.lcl

End
```

3750BC

Current configuration : 5494 bytes

Last configuration change at 11:21:29 EST Wed Mar 8 2023

NVRAM config last updated at 10:37:58 EST Wed Mar 8 2023

version 15.2

no service pad

service timestamps debug datetime msec

service timestamps log datetime msec

no service password-encryption

hostname c345-g2-3750b

boot-start-marker

boot-end-marker

no aaa new-model

clock timezone EST -5 0

clock summer-time EDT recurring

switch 1 provision ws-c3750e-48pd

switch 2 provision ws-c3750e-48pd

```
system mtu routing 1500

ip domain-name cit.lcl
vtp mode transparent

archive
 path tftp://192.168.52.12/$h-$t
 time-period 360

spanning-tree mode rapid-pvst
spanning-tree extend system-id

vlan internal allocation policy ascending

vlan 102,202,302

interface Loopback0
 ip address 169.254.1.100 255.255.255.255

interface FastEthernet0
 no ip address

interface GigabitEthernet1/0/1
```

```
 no switchport
 no ip address

interface GigabitEthernet1/0/2

interface GigabitEthernet1/0/3
 no switchport
 no ip address

interface GigabitEthernet1/0/4

interface GigabitEthernet1/0/5
 no switchport
 no ip address

interface GigabitEthernet1/0/6

[shutdown interfaces removed for brevity]

interface GigabitEthernet2/0/1
 description "2901b uplink"
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
```

```
 switchport mode trunk

interface GigabitEthernet2/0/2

interface GigabitEthernet2/0/3
 description "1921a Uplink"
 switchport trunk allowed vlan 1,102,202,302
 switchport trunk encapsulation dot1q
 switchport mode trunk

interface GigabitEthernet2/0/4

interface GigabitEthernet2/0/5
 description "PC2"
 switchport access vlan 202
 switchport mode access

interface GigabitEthernet2/0/6

interface GigabitEthernet2/0/7
 description "temporary pc2"
 switchport access vlan 202
 switchport mode access
```

```
interface GigabitEthernet2/0/8

[shutdown interfaces removed for brevity]

interface Vlan1
 no ip address

interface Vlan102
 ip address 192.168.42.10 255.255.255.0
interface Vlan202
 ip address 192.168.52.10 255.255.255.0
interface Vlan302
 ip address 192.168.62.10 255.255.255.0
ip default-gateway 192.168.5.1
ip forward-protocol nd
ip http server
ip http secure-server
line con 0
line vty 5 15
ntp update-calendar
ntp server 10.2.1.11
ntp server 10.2.1.12
```

```
ntp server tick.cit.lcl
end
```