## **Router Configurations**

Explanation and details about router configurations.

### **Router 1 Configurations**

network: 172.168.1.0 0.0.0.31

network: 192.168.2.0 0.0.0.3

network: 192.168.10.1 0.0.0.255

network: 192.168.20.1 0.0.0.255

Interface: Io0, IP: 192.168.10.1 255.255.255.0

Interface: Io1, IP: 192.168.20.1 255.255.255.0

#### Prompt for Router 1

Requirements: Strictly adhere to the following explicitly stated requirements; Write a simple Ansible playbook with separate tasks for each protocol and interface configurations with the following details; hosts: R1 Do not worry about the inventory file; Never provide explanations for the generated playbook; Do not use variables and templates to generate the playbooks; Ensure all generated playbooks adhere to yaml's rule of always starting a playbook with '---' and ending the playbook with a new line containing '...'; Always use ios\_config module and ensure unsupported parameters are not generated;; Use 'parents' argument to implement stanzas; when configuring interfaces, ensure you generate codes for only provided interfaces and always implement 'No Shutdown' for each interface; when configuring routing protocols, ensure you generate codes for only provided protocols and that the protocol is initialized only under the parents argument using the format 'router protocol-type xx'. Also, DO NOT configure router id; set 'replace' argument to block. 'replace' argument should always be child to 'ios\_config'; Protocol: ospf OSPF Area: 1, Process ID: 1, Number of networks to advertise: 4 network1: 172.168.1.0 0.0.0.31 network2: 192.168.2.0 0.0.0.3 network3: 192.168.10.1 0.0.0.255 network4: 192.168.20.1 0.0.0.255 Interface: lo0, IP: 192.168.10.1 255.255.255.0 Interface: lo1, IP: 192.168.20.1 255.255.255.0

# **Generated Playbook for Router 1**

name: Network Automation Playbook
hosts: R1
gather_facts: false
tasks:
- name: Configuring OSPF routing protocol
ios_config:
lines:
- router ospf 1
- network 172.168.1.0 0.0.0.31 area 1
- network 192.168.2.0 0.0.0.3 area 1
- network 192.168.10.1 0.0.0.255 area 1
- network 192.168.20.1 0.0.0.255 area 1
replace: block
- name: Configuring Loopback Interface Io0
ios_config:
lines:
- ip address 192.168.10.1 255.255.255.0
- no shutdown
parents: interface lo0

replace: block

- name: Configuring Loopback Interface Io1

ios\_config:

lines:

- ip address 192.168.20.1 255.255.255.0

- no shutdown

parents: interface lo1

replace: block

...

## **Router 2 Configurations**

network: 192.168.2.0 0.0.0.3

network: 192.168.30.1 0.0.0.255

network: 192.168.4.0 0.0.0.3

network: 192.168.40.1 0.0.0.255

Interface: lo0, IP: 192.168.30.1 255.255.255.0

Interface: Io1, IP: 192.168.40.1 255.255.255.0

#### **Prompt for Router 2**

Requirements: Strictly adhere to the following explicitly stated requirements; Write a simple Ansible playbook with separate tasks for each protocol and interface configurations with the following details; hosts: R2 Do not worry about the inventory file; Never provide explanations for the generated playbook; Do not use variables and templates to generate the playbooks; Ensure all generated playbooks adhere to vaml's rule of always starting a playbook with `---` and ending the playbook with a new line containing `...`; Always use ios config module and ensure unsupported parameters are not generated;; Use 'parents' argument to implement stanzas; when configuring interfaces, ensure you generate codes for only provided interfaces and always implement 'No Shutdown' for each interface; when configuring routing protocols, ensure you generate codes for only provided protocols and that the protocol is initialized only under the parents argument using the format `router protocol-type xx`. Also, DO NOT configure router id; set `replace` argument to block. `replace` argument should always be child to `ios config`; Protocol: ospf OSPF Area: 1, Process ID: 1. Number of networks to advertise: 2 network1: 192.168.2.0 0.0.0.3 network2: 192.168.30.1 0.0.0.255 Protocol: eigrp EIGRP AS Number: 10, Number of networks to advertise: 2 network1: 192.168.4.0 0.0.0.3 network2: 192.168.40.1 0.0.0.255; Using dedicated tasks, Please redistribute the routing protocols using 'redistribute ospf 1 metric 1000 33 255 1 1500' for redistributing OSPF into EIGRP and 'redistribute eigrp 10 subnets' for redistributing EIGRP into OSPF; The redistribution tasks, should be generated after the routing protocol configuration tasks have been Interface: Io0, IP: 192.168.30.1 255.255.255.0 Interface: Io1, IP: 192.168.40.1 generated: 255.255.255.0

## **Generated Playbook for Router 2**

- hosts: R2 gather\_facts: no tasks: - name: Configure Loopback interface 0 ios\_config: parents: interface lo0 lines: - ip address 192.168.30.1 255.255.255.0 - no shutdown - name: Configure Loopback interface 1 ios\_config: parents: interface lo1 lines: - ip address 192.168.40.1 255.255.255.0 - no shutdown - name: Configure OSPF ios\_config: parents: router ospf 1 lines: - network 192.168.2.0 0.0.0.3 area 1 - network 192.168.30.1 0.0.0.255 area 1

replace: block - name: Configure EIGRP ios\_config: parents: router eigrp 10 lines: - network 192.168.4.0 0.0.0.3 - network 192.168.40.1 0.0.0.255 replace: block - name: Redistribute OSPF into EIGRP ios\_config: parents: router eigrp 10 lines: - redistribute ospf 1 metric 1000 33 255 1 1500 replace: block - name: Redistribute EIGRP into OSPF ios\_config: parents: router ospf 1 lines: - redistribute eigrp 10 subnets replace: block

### **Router 3 Configurations**

network: 192.168.4.0 0.0.0.3

network: 192.168.50.1 0.0.0.255

network: 192.168.6.0 0.0.0.3

network: 192.168.60.1 0.0.0.255

Interface: Io0, IP: 192.168.50.1 255.255.255.0

Interface: lo1, IP: 192.168.60.1 255.255.255.0

#### **Prompt for Router 3**

Requirements: Strictly adhere to the following explicitly stated requirements; Write a simple Ansible playbook with separate tasks for each protocol and interface configurations with the following details; hosts: R3 Do not worry about the inventory file; Never provide explanations for the generated playbook; Do not use variables and templates to generate the playbooks; Ensure all generated playbooks adhere to vaml's rule of always starting a playbook with `---` and ending the playbook with a new line containing `...`; Always use ios config module and ensure unsupported parameters are not generated;; Use 'parents' argument to implement stanzas; when configuring interfaces, ensure you generate codes for only provided interfaces and always implement 'No Shutdown' for each interface; when configuring routing protocols, ensure you generate codes for only provided protocols and that the protocol is initialized only under the parents argument using the format `router protocol-type xx`. Also, DO NOT configure router id; set `replace` argument to block. 'replace' argument should always be child to 'ios config'; Protocol: eigrp EIGRP AS Number: 10, Number of networks to advertise: 2 network1: 192.168.4.0 0.0.0.3 network2: 192.168.50.1 0.0.0.255 Protocol: ospf OSPF Area: 100, Process ID: 1, Number of networks to advertise: 2 network1: 192.168.6.0 0.0.0.3 network2: 192.168.60.1 0.0.0.255; Using dedicated tasks, Please redistribute the routing protocols using 'redistribute ospf 1 metric 1000 33 255 1 1500' for redistributing OSPF into EIGRP and 'redistribute eigrp 10 subnets' for redistributing EIGRP into OSPF; The redistribution tasks, should be generated after the routing protocol configuration tasks have been Interface: Io0, IP: 192.168.50.1 255.255.255.0 Interface: Io1, IP: 192.168.60.1 generated: 255.255.255.0

# **Generated Playbook for Router 3**

name: Configure R3
hosts: R3
gather_facts: no
tasks:
- name: Configure Io0 interface
ios_config:
parents: interface lo0
lines:
- ip address 192.168.50.1 255.255.255.0
- no shutdown
replace: block
- name: Configure lo1 interface
ios_config:
parents: interface lo1
lines:
- ip address 192.168.60.1 255.255.255.0
- no shutdown
replace: block
- name: Configure EIGRP routing protocol
ios_config:

parents: router eigrp 10
lines:
- network 192.168.4.0 0.0.0.3
- network 192.168.50.1 0.0.0.255
replace: block
name: Configure OSPF routing protocol
ios_config:
parents: router ospf 1
lines:
- network 192.168.6.0 0.0.0.3 area 100
- network 192.168.60.1 0.0.0.255 area 100
replace: block
name: Redistribute OSPF into EIGRP
ios_config:
parents: router eigrp 10
lines:
- redistribute ospf 1 metric 1000 33 255 1 1500
replace: block
name: Redistribute EIGRP into OSPF
ios_config:
parents: router ospf 1
lines:
- redistribute eigrp 10 subnets

replace: block

...

## **Router 4 Configurations**

network: 192.168.6.0 0.0.0.3

network: 192.168.70.1 0.0.0.255

network: 192.168.80.1 0.0.0.255

Interface: lo0, IP: 192.168.70.1 255.255.255.0

Interface: Io1, IP: 192.168.80.1 255.255.255.0

#### **Prompt for Router 4**

Requirements: Strictly adhere to the following explicitly stated requirements; Write a simple Ansible playbook with separate tasks for each protocol and interface configurations with the following details; hosts: R4 Do not worry about the inventory file; Never provide explanations for the generated playbook; Do not use variables and templates to generate the playbooks; Ensure all generated playbooks adhere to yaml's rule of always starting a playbook with `---` and ending the playbook with a new line containing `...`; Always use ios\_config module and ensure unsupported parameters are not generated;; Use `parents` argument to implement stanzas; when configuring interfaces, ensure you generate codes for only provided interfaces and always implement 'No Shutdown' for each interface; when configuring routing protocols, ensure you generate codes for only provided protocols and that the protocol is initialized only under the parents argument using the format `router protocol-type xx`. Also, DO NOT configure router id; set `replace` argument to block. `replace` argument should always be child to `ios\_config`; Protocol: ospf OSPF Area: 100, Process ID: 1, Number of networks to advertise: 3 network1: 192.168.6.0 0.0.0.3 network2: 192.168.70.1 0.0.0.255 network3: 192.168.80.1 0.0.0.255 Interface: Io0, IP: 192.168.70.1 255.255.255.0 Interface: Io1, IP: 192.168.80.1 255.255.255.0

## **Generated Playbook for Router 4**

```
- hosts: R4
gather_facts: no
tasks:
 - name: configure loopback interfaces
  ios_config:
    parents: interface {{ item.name }}
    lines:
     - ip address {{ item.ip }}
     - no shutdown
    replace: block
   loop:
    - { name: 'lo0', ip: '192.168.70.1 255.255.255.0' }
    - { name: 'lo1', ip: '192.168.80.1 255.255.255.0' }
 - name: setup OSPF
  ios_config:
    parents: router ospf 1
    lines:
     - network {{ item.network }} area 100
    replace: block
   loop:
    - { network: '192.168.6.0 0.0.0.3' }
    - { network: '192.168.70.1 0.0.0.255' }
```

- { network: '192.168.80.1 0.0.0.255' }

...