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: Ansible playbook to automate Network Configuration
hosts: R1
gather_facts: no
tasks:
 - name: Configure loopback interfaces
  ios_config:
    parents: interface {{ item.name }}
    lines:
     - ip address {{ item.ip }}
     - no shutdown
    replace: block
  with_items:
    - { name: 'lo0', ip: '192.168.10.1 255.255.255.0' }
    - { name: 'lo1', ip: '192.168.20.1 255.255.255.0' }
 - name: Configure OSPF Protocol
  ios_config:
    parents: router ospf 1
    lines:
     - network {{ item.net }} area 1
    replace: block
  with_items:
    - { net: '172.168.1.0 0.0.0.31' }
```

- { net: '192.168.2.0 0.0.0.3' }

- { net: '192.168.10.1 0.0.0.255' }

- { net: '192.168.20.1 0.0.0.255' }

...

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: lo1, 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

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hosts: R2
gather_facts: no
tasks:
- name: configure lo0 interface
ios_config:
lines:
- ip address 192.168.30.1 255.255.255.0
- no shutdown
parents: interface lo0
replace: block
- name: configure lo1 interface
ios_config:
lines:
- ip address 192.168.40.1 255.255.255.0
- no shutdown
parents: interface lo1
replace: block
- name: configure OSPF
ios_config:
lines:
- network 192.168.2.0 0.0.0.3 area 1

- network 192.168.30.1 0.0.0.255 area 1 parents: router ospf 1 replace: block - name: configure EIGRP ios_config: lines: - network 192.168.4.0 0.0.0.3 - network 192.168.40.1 0.0.0.255 parents: router eigrp 10 replace: block - name: redistribute ospf into EIGRP ios_config: lines: - redistribute ospf 1 metric 1000 33 255 1 1500 parents: router eigrp 10 replace: block - name: redistribute EIGRP into OSPF ios_config: lines: - redistribute eigrp 10 subnets parents: router ospf 1 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: lo0, 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

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hosts: R3
gather_facts: no
tasks:
- name: config lo0 interface
ios_config:
lines:
- ip address 192.168.50.1 255.255.255.0
- no shutdown
parents: interface lo0
replace: block
- name: config lo1 interface
ios_config:
lines:
- ip address 192.168.60.1 255.255.255.0
- no shutdown
parents: interface lo1
replace: block
- name: config EIGRP
ios_config:
lines:
- network 192 168 / 0.0.0.3

- network 192.168.50.1 0.0.0.255
parents: router eigrp 10
replace: block
- name: config OSPF
ios_config:
lines:
- network 192.168.6.0 0.0.0.3 area 100
- network 192.168.60.1 0.0.0.255 area 100
parents: router ospf 1
replace: block
- name: redistribute OSPF into EIGRP
ios_config:
lines:
- redistribute ospf 1 metric 1000 33 255 1 1500
parents: router eigrp 10
replace: block
- name: redistribute EIGRP to OSPF
ios_config:
lines:
- redistribute eigrp 10 subnets
parents: router ospf 1
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: Io0, IP: 192.168.70.1 255.255.255.0

Interface: lo1, 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 Interfaces
ios_config:
lines:
- description "Configured by Ansible"
- ip address 192.168.70.1 255.255.255.0
- no shutdown
parents: interface lo0
replace: block
- name: Configure second Interface
ios_config:
lines:
- description "Configured by Ansible"
- ip address 192.168.80.1 255.255.255.0
- no shutdown
parents: interface lo1
replace: block

- name: Configure OSPF

ios_config:

lines:

- network 192.168.6.0 0.0.0.3 area 100

- network 192.168.70.1 0.0.0.255 area 100

- network 192.168.80.1 0.0.0.255 area 100

parents: router ospf 1

replace: block

...