SDN Project3 Answer Sheet

Name: 陳正宗 Student ID: 0756823 Department: 資訊組

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** **Show topology with IP addresses, interfaces and ASNs**     |  |  |  |  |  | | --- | --- | --- | --- | --- | | Interface | Device1 IP | Device2 IP | Device3 IP | ASNs | | ONOSbr | **ONOS:** 172.23.0.2 | **Speaker:** 172.23.0.3 | **OVS1:** 172.23.0.4 | **Speaker:** 65000 | | R1h1br | **R1:** 172.18.0.2 | **h1:** 172.18.0.3 | **-** | **R1:** 65001 | | R2h2br | **R2:** 172.19.0.2 | **h2:** 172.19.0.3 | **-** | **R2:** 65002 | | R3h3br | **R3:** 172.24.0.2 | **h3:** 172.24.0.3 | **-** | **R3:** 65003 | | R4h4br | **R4:** 172.25.0.2 | **h4:** 172.25.0.3 | **-** | **R4:** 65004 | | R1OVS1br | **R1:** 172.20.0.2 | **OVS1:** 172.20.0.3 | **-** | **-** | | R2OVS2br | **R2:** 172.21.0.2 | **OVS2:** 172.21.0.3 | **-** | **-** | | R3OVS3br | **R3:** 172.29.0.2 | **OVS3:** 172.29.0.3 | **-** | **-** | | R4OVS4br | **R4:** 172.30.0.2 | **OVS4:** 172.30.0.3 | **-** | **-** | | OVS1OVS2br | **OVS1:** 172.22.0.2 | **OVS2:** 172.22.0.3 | **-** | **-** | | OVS1OVS4br | **OVS1:** 172.27.0.2 | **OVS4:** 172.27.0.3 | **-** | **-** | | OVS2OVS3br | **OVS2:** 172.28.0.2 | **OVS3:** 172.28.0.3 | **-** | **-** | | OVS3OVS4br | **OVS3:** 172.26.0.2 | **OVS4:** 172.26.0.3 | **-** | **-** | |
| **2. Mark the path eBGP and iBGP in topology** |
| **3. Capture BGP packets (send/receive) in speaker path** |
| **4. Telnet bgpd daemons of Speaker and show summary screenshots** |
| **5. Screenshots topology and intents on the ONOS Web GUI**      **6. Write down what you have learned or solved**   1. 如前面幾題可知，有一個ebgp沒有被實作出來，想分享一下debug的過程    1. 檢查了Speaker, R3/ebgp及ovs3 /ovs-vsctl的設定    2. 刪除及重建(ovs2ovs3br, ovs3ovs4br)    3. 重新連ovs port    4. Update switch port into the json file    5. 檢查R3 bgp與其他的router 設定，也並無發現異常    6. 看討論區很同學是選擇整個網路刪掉重建，但作業繳交時間即將截止沒能完成，後續會再嘗試重新建一次新網路看是否有盲點沒注意到 2. 學習SDN + vSwitch & vRouter，建立虛擬化網路 3. 學習iBGP & eBGP 網路架構及設定 |