# 交换路由无线网关设备配置评分标准

## VSU（55分）

|  |  |
| --- | --- |
| VSU#show run | include snmp | 5 |
| VSU#show run | include snmp  snmp-server host 172.16.0.254 traps version 2c ruijie  snmp-server host 172.16.0.254 traps version 2c public  snmp-server enable traps  snmp-server community ruijie rw  snmp-server community public ro | 每个1分 |
| VSU#show running-config | include ssh | 5 |
| VSU#show running-config | include ssh enable service ssh-server  transport input ssh | 每个2.5分 |
| VSU#sh run interface gigabitEthernet 0/1 | 5 |
| VSU#sh run interface gigabitEthernet 0/1  Building configuration...  Current configuration: 192 bytes  interface GigabitEthernet 1/0/1  errdisable recovery interval 300  switchport access vlan 10  spanning-tree bpduguard enable  spanning-tree portfast  rldp port loop-detect shutdown-port | 每个1分 |
| VSU#sh ip dhcp snooping binding （PC端DHCP获取后抓取） | 5 |
| VSU#sh ip dhcp snooping binding  Total number of bindings: 1  NO. MACADDRESS IPADDRESS LEASE(SEC) TYPE VLAN INTERFACE  ----- ------------------ --------------- ------------ ------------- ----- --------------------  1 48ba.4e5b.05f3 192.1.10.4 79904 DHCP-Snooping 10 GigabitEthernet 1/0/2 | 完全匹配得5分 |
| VSU#show nfpp log summary | 5 |
| VSU#show nfpp log summary  Total log buffer size : 1024  Syslog rate : 1 entry per 300 seconds  Logging: | 完全匹配得5分 |
| VSU#show run interface gigabitEthernet 0/23 | 5 |
| VSU#show run interface gigabitEthernet 0/23  Building configuration...  Current configuration: 214 bytes  interface GigabitEthernet 1/0/23  port-group 1  no nfpp arp-guard enable  no nfpp icmp-guard enable  no nfpp ip-guard enable  no nfpp dhcp-guard enable  no nfpp dhcpv6-guard enable  no nfpp nd-guard enable | 完全匹配得5分 |
| VSU#show cpu-protect cpu | 5 |
| VSU#show cpu-protect cpu  %cpu port bandwidth: 500(pps) | 完全匹配得5分 |
| VSU#show switch virtual | 5 |
| VSU#show switch virtual  Switch\_id Domain\_id Priority Position Status Role Description  ----------------------------------------------------------------------------------------------------------------  1(1) 1(1) 150(150) LOCAL OK ACTIVE S2910-1  2(2) 1(1) 120(120) REMOTE OK STANDBY S2910-2 | 完全匹配得5分 |
| VSU#show switch virtual dual-active bfd | 5 |
| VSU#show switch virtual dual-active bfd  BFD dual-active detection enabled: Yes  BFD dual-active interface configured:  GigabitEthernet 1/0/22: UP  GigabitEthernet 2/0/22: UP | 完全匹配得5分 |
| VSU#show spanning-tree mst configuration | 5 |
| VSU#show spanning-tree mst configuration  Multi spanning tree protocol : Enable  Name : ruijie  Revision : 1  Instance Vlans Mapped  -------- --------------------------------------------  0 : ALL  ----------------------------------------------------- | 完全匹配得5分 |
| VSU#show spanning-tree summary | 5 |
| VSU#show spanning-tree summary  Spanning tree enabled protocol mstp  MST 0 vlans map : ALL  Root ID Priority 4096  Address 5869.6cf8.9e90  this bridge is root  Hello Time 2 sec Forward Delay 15 sec Max Age 20 sec  Bridge ID Priority 32768  Address 5869.6cd8.0367  Hello Time 2 sec Forward Delay 15 sec Max Age 20 sec  Interface Role Sts Cost Prio OperEdge Type  ---------------- ---- --- ---------- -------- -------- ----------------  Ag2 Altn BLK 19000 128 False P2p  Ag1 Root FWD 19000 128 False P2p  Gi2/0/21 Desg FWD 20000 128 True P2p  Gi1/0/21 Desg FWD 20000 128 True P2p  Gi1/0/1 Desg FWD 20000 128 True P2p | 完全匹配得5分 |

## S3（25分）

|  |  |
| --- | --- |
| S3#show ip ospf neighbor | 10 |
| S3#show ip ospf neighbor  OSPF process 10, 4 Neighbors, 4 is Full:  Neighbor ID Pri State Dead Time Address Interface  11.1.0.11 1 Full/ - 00:00:36 10.1.0.1 GigabitEthernet 0/24  11.1.0.204 0 Full/DROther 00:00:34 192.1.100.2 VLAN 100  11.1.0.205 0 Full/DROther 00:00:35 192.1.100.3 VLAN 100  11.1.0.34 1 Full/DR 00:00:30 192.1.100.253 VLAN 100 | 每行完全匹配得2.5分 |
| S3#show run | include passive-interface | 5 |
| S3#show run | include passive-interface  **passive-interface VLAN 10 //先passive-interface defalut再no passive-interface gi0/24、vlan100也算正确**  **passive-interface VLAN 20**  **passive-interface VLAN 30**  **passive-interface VLAN 40** | 完全匹配得5分  出现其他接口则不得分 |
| S3#show ipv6 neighbors | exclude 58（IPV6终端获取地址后收集） | 10 |
| S3#show ipv6 neighbors | exclude 58  IPv6 Address Linklayer Addr Interface  2001:192:10::254 0000.5e00.020a VLAN 10  2001:192:20::254 0000.5e00.0214 VLAN 20  2001:192:30::254 0000.5e00.021e VLAN 30  2001:192:40::254 0000.5e00.0228 VLAN 40  FE80::3 0000.5e00.020a VLAN 10  FE80::5956:E050:694F:E260 000e.c6c1.ba28 VLAN 10  FE80::3 0000.5e00.0214 VLAN 20  FE80::3 0000.5e00.021e VLAN 30  FE80::3 0000.5e00.0228 VLAN 40 | 有FE80且链路本地地址有非0000开头得10分 |

## S4（20分）

|  |  |
| --- | --- |
| s4#show interface switchport | include TRUNK | 10 |
| s4#show interface switchport | include TRUNK  GigabitEthernet 0/3 enabled TRUNK 1 1 Disabled 50,60,100  AggregatePort 2 enabled TRUNK 1 1 Disabled 10,20,30,40,50,60,100  AggregatePort 3 enabled TRUNK 1 1 Disabled 10,20,30,40,50,60,100 | 第1行完全匹配得5分  第2行完全匹配得2.5分  第3行完全匹配得2.5分 |
| s4#show vrrp brief | 5 |
| s4#show vrrp brief  Interface Grp Pri timer Own Pre State Master addr Group addr  VLAN 10 10 120 3.53 - P Backup 192.1.10.252 192.1.10.254  VLAN 20 20 120 3.53 - P Backup 192.1.20.252 192.1.20.254  VLAN 30 30 120 3.53 - P Backup 192.1.30.252 192.1.30.254  VLAN 40 40 120 3.53 - P Backup 192.1.40.252 192.1.40.254  VLAN 100 100 120 3.53 - P Backup 192.1.100.252 192.1.100.254 | 完全匹配得5分 |
| s4#show ipv6 vrrp brief | 5 |
| s4#show ipv6 vrrp brief  Interface Grp Pri timer Own Pre State Master addr Group addr  VLAN 10 10 120 3.53 - P Backup FE80::5A69:6CFF:FEF8:9E91 FE80::3  VLAN 20 20 120 3.53 - P Backup FE80::5A69:6CFF:FEF8:9E91 FE80::3  VLAN 30 30 120 3.53 - P Backup FE80::5A69:6CFF:FEF8:9E91 FE80::3  VLAN 40 40 120 3.53 - P Backup FE80::5A69:6CFF:FEF8:9E91 FE80::3 | 完全匹配得5分 |

## S5（40分）

|  |  |
| --- | --- |
| S5#show vlan private-vlan | 5 |
| S5#show vlan private-vlan  VLAN Type Status Routed Ports Associated VLANs  ----- ---------- -------- -------- ------------------------------ ------------------  10 primary active Enabled 11-12  11 community active Enabled Gi0/1, Gi0/2, Gi0/3 10  Gi0/4  12 isolated active Enabled Gi0/5, Gi0/6, Gi0/7 10  Gi0/8 | 完全匹配得5分 |
| S5#show run interface gigabitEthernet 0/1 | 10 |
| S5#show run interface gigabitEthernet 0/1  Building configuration...  Current configuration: 395 bytes  interface GigabitEthernet 0/1  storm-control broadcast level 2  storm-control multicast level 2  storm-control unicast level 2  switchport protected  switchport mode private-vlan host  switchport private-vlan host-association 10 11  rate-limit input 10000 1024  switchport port-security mac-address 000e.c6c1.ba28 vlan 11  switchport port-security maximum 1  switchport port-security | 每行1分 |
| S5#show version | 10 |
| S5#show version  System description : Ruijie 10G Routing Switch(S5750-24GT4XS-L) By Ruijie Networks  System start time : 2018-05-16 08:41:23  System uptime : 0:08:22:55  System hardware version : 1.12  System software version : S5750\_RGOS 11.4(1)B12P11  System patch number : NA  System serial number : G1LD4R0001620  System boot version : 1.2.25  Module information:  Slot 0 : S5750-24GT4XS-L  Hardware version : 1.12  Boot version : 1.2  Software version : S5750\_RGOS 11.4(1)B12P11  Serial number : G1LD4R0001620 | 完全匹配得10分 |
| S5#show ipv6 interface brief | 5 |
| S5#show ipv6 interface brief  VLAN 10 [up/up]  FE80::5A69:6CFF:FED5:75D0  2001:194:10::254  VLAN 20 [up/up]  FE80::5A69:6CFF:FED5:75D0  2001:194:20::254  VLAN 30 [up/up]  FE80::5A69:6CFF:FED5:75D0  2001:194:30::254  VLAN 40 [up/up]  FE80::5A69:6CFF:FED5:75D0  2001:194:40::254 | 完全匹配得5分 |
| S5#show ip dhcp binding （无线终端分别关联胖AP SSID 后收集） | 10 |
| S5#show ip dhcp binding  Total number of clients : 5  Expired clients : 0  Running clients : 5  IP address Hardware address Lease expiration Type  194.1.20.2 5869.6cf8.51fb Infinite Manual  194.1.20.1 000e.c6c1.ba28 000 days 17 hours 28 mins Automatic  194.1.30.1 0479.7095.afbc 000 days 14 hours 34 mins Automatic  194.1.40.1 0479.7095.afbc 000 days 14 hours 38 mins Automatic  194.1.40.2 f816.54c0.9289 000 days 23 hours 58 mins Automatic | 每个2.5分 |

## S6（40分）

|  |  |
| --- | --- |
| S6#show ipv6 route ospf | 20 |
| S6#show ipv6 route ospf  IPv6 routing table name - Default - 15 entries  Codes: C - Connected, L - Local, S - Static  R - RIP, O - OSPF, B - BGP, I - IS-IS, V - Overflow route  N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  E1 - OSPF external type 1, E2 - OSPF external type 2  SU - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2  IA - Inter area  O 2001:196:10::/64 [110/11112] via FE80::3201:E, Tunnel 0  O 2001:196:20::/64 [110/11112] via FE80::3201:E, Tunnel 0 | 每行完全匹配得10分 |
| S6#show ip route | 10 |
| S6#show ip route  Gateway of last resort is no set  C 11.1.0.6/32 is local host.  B 11.1.0.7/32 [20/0] via 50.1.0.9, 00:04:24  B 20.1.0.0/16 [20/0] via 50.1.0.9, 09:25:03  B 30.1.0.0/16 [20/0] via 50.1.0.9, 09:25:03  B 40.1.0.0/16 [20/0] via 50.1.0.9, 09:25:03  C 50.1.0.8/30 is directly connected, GigabitEthernet 0/24  C 50.1.0.10/32 is local host.  B 50.1.0.12/30 [20/120] via 50.1.0.9, 00:04:00  B 60.1.0.0/16 [200/0] via 0.0.0.0, 09:25:33, Null 0  C 60.1.10.0/24 is directly connected, VLAN 10  C 60.1.10.254/32 is local host.  C 60.1.20.0/24 is directly connected, VLAN 20  C 60.1.20.254/32 is local host.  B 70.1.0.0/16 [20/0] via 50.1.0.9, 00:04:24 | 每条2分  出现除C\B以外的路由则整题不得分 |
| S6show ip bgp 70.1.0.0 | 10 |
| S6show ip bgp 70.1.0.0  BGP routing table entry for 70.1.0.0/16  Paths: (1 available, best #1, table Default-IP-Routing-Table)  Not advertised to any peer  100 120, (aggregated by 120 11.1.0.7)  50.1.0.9 from 50.1.0.9 (11.1.0.1)  Origin IGP, metric 0, localpref 100, valid, external, best  Last update: Thu May 17 08:36:39 2018 | 完全匹配得10分 |

## S7（15分）

|  |  |
| --- | --- |
| s7#show ipv6 ospf neighbor | 10 |
| s7#show ipv6 ospf neighbor  OSPFv3 Process (10), 1 Neighbors, 1 is Full:  Neighbor ID Pri State BFD State Dead Time Instance ID Interface  11.1.0.6 1 Full/ - - 00:00:36 0 Tunnel 0  s7#  s7# | 完全匹配得10分 |
| s7#show ip bgp summary | 5 |
| s7#show ip bgp summary  For address family: IPv4 Unicast  BGP router identifier 11.1.0.7, local AS number 120  BGP table version is 4  3 BGP AS-PATH entries  0 BGP Community entries  10 BGP Prefix entries (Maximum-prefix:4294967295)  Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd  50.1.0.13 4 100 19 17 3 0 0 00:12:13 6  Total number of neighbors 1 | 第1个匹配得2分  第2个为数字得3分，不一定为数值6. |

## R1（10分）

|  |  |
| --- | --- |
| R1#show run | include network | 5 |
| R1#show run | include network  network 20.1.0.0 mask 255.255.0.0  network 30.1.0.0 mask 255.255.0.0  network 40.1.0.0 mask 255.255.0.0  network 50.1.0.12 mask 255.255.255.252  network 50.1.0.1 0.0.0.0 area 0 | 完全匹配得5分 |
| R1#show ip route static | 5 |
| R1#show ip route static  S 20.1.0.0/16 is directly connected, Null 0  S 30.1.0.0/16 is directly connected, Null 0  S 40.1.0.0/16 is directly connected, Null 0 | 完全匹配得5分 |

## R2（15分）

|  |  |
| --- | --- |
| R2#show ip bgp summary | 10 |
| R2#show ip bgp summary  BGP router identifier 11.1.0.2, local AS number 100  BGP table version is 7  3 BGP AS-PATH entries  0 BGP Community entries  7 BGP Prefix entries (Maximum-prefix:4294967295)  Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd  11.1.0.1 4 100 658 656 7 0 0 09:28:37 5  11.1.0.3 4 100 663 657 4 0 0 09:28:39 2  Total number of neighbors 2 | 第1、3匹配每个得2分  第2、4为数字每个得3分，数字不一定为5，2。 |
| R2#show run | include route-reflector-client | 5 |
| R2#show run | include route-reflector-client  neighbor 11.1.0.1 route-reflector-client  neighbor 11.1.0.3 route-reflector-client | 完全匹配得5分 |

## R3（35分）

|  |  |
| --- | --- |
| R3#show run | include password 、R3#show run | begin line | 5 |
| R3#show run | include password  webmaster level 0 username admin password 7 004b244e4a39  username admin password admin  no service password-encryption  enable password admin  R3#show run | begin line  line con 0  line aux 0  line vty 0 4  login local  !  !  end | 完全匹配得5分 |
| R3#show interfaces description | include Con | 5 |
| R3#show interfaces description | include Con  Serial 3/0 up up Con\_To\_R2\_ Se3/0  FastEthernet 1/1 up up Con\_To\_EG1\_Gi0/4  FastEthernet 1/2 up up Con\_To\_EG2\_Gi0/4  GigabitEthernet 0/0 up up Con\_To\_S7\_Gi0/24 | 完全匹配得5分 |
| R3#show ip route bgp | 15 |
| R3#show ip route bgp  B 11.1.0.6/32 [200/0] via 50.1.0.10, 09:22:03  B 11.1.0.7/32 [20/0] via 50.1.0.14, 00:16:42  B 20.1.0.0/16 [200/0] via 11.1.0.1, 09:37:01  B 30.1.0.0/16 [200/0] via 11.1.0.1, 09:37:01  B 40.1.0.0/16 [200/0] via 11.1.0.1, 09:37:01  B 60.1.0.0/16 [200/0] via 50.1.0.10, 09:37:01  B 70.1.0.0/16 [20/0] via 50.1.0.14, 00:16:42 | 每个5分 |
| R3#show run interface gigabitEthernet 0/0 | 5 |
| R3#show run interface gigabitEthernet 0/0  Building configuration...  Current configuration : 215 bytes  !  interface GigabitEthernet 0/0  ip address 50.1.0.13 255.255.255.252  duplex auto  speed auto  rate-limit input 10000000 1000000 2000000 conform-action transmit exceed-action drop  description Con\_To\_S7\_Gi0/24 | 完全匹配得5分 |
| R3#show run interface serial 3/0 | 5 |
| R3#show run interface serial 3/0  Building configuration...  Current configuration : 157 bytes  !  interface Serial 3/0  encapsulation PPP  ip address 50.1.0.6 255.255.255.252  traffic-shape rate 2000000 40000 40000 1000  description Con\_To\_R2\_ Se3/0 | 完全匹配得5分 |

## EG1（65分）

|  |  |
| --- | --- |
| EG1#show ip dhcp binding （PC端DHCP获取后抓取） | 5 |
| EG1#show ip dhcp binding （PC端DHCP获取后抓取）  Total number of clients : 5  Expired clients : 2  Running clients : 3  IP address Hardware address Lease expiration Type  192.1.10.2 000e.c6c1.ba28 000 days 22 hours 25 mins Automatic  192.1.10.4 48ba.4e5b.05f3 000 days 22 hours 12 mins Automatic  192.1.10.1 000e.c6c1.ba28 000 days 23 hours 18 mins Automatic | 完全匹配得5分 |
| EG1#show ip route ospf | include virtual-access | 10 |
| EG1#show ip route ospf | include virtual-access  Running this command may take some time, please wait or press "Ctrl+C" to break.  O 10.1.0.8/30 [110/2] via 12.1.0.2, 03:30:23, virtual-access 2  O 11.1.0.5/32 [110/2] via 12.1.0.2, 03:30:23, virtual-access 2  O 11.1.0.12/32 [110/1] via 12.1.0.2, 03:30:23, virtual-access 2  O 194.1.10.0/24 [110/3] via 12.1.0.2, 00:03:04, virtual-access 2  O 194.1.20.0/24 [110/3] via 12.1.0.2, 00:48:58, virtual-access 2  O 194.1.30.0/24 [110/3] via 12.1.0.2, 03:30:23, virtual-access 2  0 194.1.40.0/24 [110/3] via 12.1.0.2, 02:55:52, virtual-access 2 | 完全匹配得10分 |
| EG1#show ip route ospf | include GigabitEthernet | 10 |
| EG1#show ip route ospf | include GigabitEthernet  Running this command may take some time, please wait or press "Ctrl+C" to break.  O IA 11.1.0.33/32 [110/1] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 11.1.0.34/32 [110/1] via 10.1.0.6, 03:59:14, GigabitEthernet 0/1  O IA 11.1.0.204/32 [110/2] via 10.1.0.6, 06:10:02, GigabitEthernet 0/1  O IA 11.1.0.205/32 [110/2] via 10.1.0.6, 00:12:54, GigabitEthernet 0/1  O E1 172.16.0.0/22 [110/21] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 192.1.10.0/24 [110/2] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 192.1.20.0/24 [110/2] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 192.1.30.0/24 [110/2] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 192.1.40.0/24 [110/2] via 10.1.0.2, 01:04:52, GigabitEthernet 0/0  O IA 192.1.50.0/24 [110/3] via 10.1.0.6, 00:12:54, GigabitEthernet 0/1  O IA 192.1.60.0/24 [110/3] via 10.1.0.6, 00:12:54, GigabitEthernet 0/1  O IA 192.1.100.0/24 [110/2] via 10.1.0.6, 06:46:48, GigabitEthernet 0/1 | 1条OE1得2分  6条OIA共得2分  10~40出接口为GI0/0、  50~60出接口为GI0/1  才得6分 |
| EG1#show ip session filter | 5 |
| EG1#show ip session filter  ip session filter 102 | 完全匹配得5分 |
| EG1#show access-lists | 10 |
| EG1#show access-lists  ip access-list extended 102  10 permit icmp any host 20.1.0.6  20 permit icmp any host 30.1.0.6  30 permit icmp any host 40.1.0.6  40 permit tcp any host 20.1.0.6 eq telnet  50 permit tcp any host 30.1.0.6 eq telnet  60 permit tcp any host 40.1.0.6 eq telnet  **70 permit ip 192.1.10.0 0.0.0.255 any //5条192开头的路由汇总为192.X.0.0 0.0.255.255也算正确**  **80 permit ip 192.1.20.0 0.0.0.255 any**  **90 permit ip 192.1.30.0 0.0.0.255 any**  **100 permit ip 192.1.40.0 0.0.0.255 any**  **110 permit ip 192.1.60.0 0.0.0.255 any**  **120 permit ip 172.16.0.0 0.0.3.255 any**  130 permit tcp any host 20.1.0.2 eq 22  140 permit ospf any any  150 permit udp any any eq snmp  160 permit udp any any eq snmptrap  170 permit esp any any  **180 permit udp any eq bootpc any eq bootps // 2条boot 汇总为 eq range 67,68也算正确**  **190 permit udp any eq bootps any eq bootpc**  200 permit udp any any eq 1701 | 第1~3行ICMP匹配得1分  第4~6行TCP匹配得1分  192&172开头匹配得1分  eq22匹配得1分  ospf匹配得1分  snmp匹配得1分  snmptrap匹配得1分  esp匹配得1分  boot/67、68匹配得1分  1701匹配得1分 |
| EG1#show run | begin ip nat pool | 10 |
| EG1#show run | begin ip nat pool  ip nat pool nat\_pool prefix-length 24  address interface GigabitEthernet 0/2 match interface GigabitEthernet 0/2  address interface GigabitEthernet 0/3 match interface GigabitEthernet 0/3  address interface GigabitEthernet 0/4 match interface GigabitEthernet 0/4  !  ip nat outside source static tcp 11.1.0.6 23 20.1.0.20 23  ip nat inside source static tcp 11.1.0.34 23 20.1.0.2 22 permit-inside  ip nat inside source list 1 pool nat\_pool overload | 前4行和最后1行完全匹配得2分  第5行完全匹配得5分  第6行完全匹配得3分 |
| EG1#sh run interface gigabitEthernet 0/2 | 5 |
| EG1#sh run interface gigabitEthernet 0/2  Building configuration...  Current configuration: 158 bytes  interface GigabitEthernet 0/2  bandwidth 100000  nexthop 20.1.0.1  reverse-path  ip address 20.1.0.6 255.255.255.248  crypto map gi0/2  ip nat outside | 第1个匹配得2分  第2个匹配得2分  第3个匹配得1分 |
| EG1#show web-auth user all | 5 |
| EG1#show web-auth user all  Current user num: 1, Online 1  Address Online Time Limit Time used Status Name  --------------- ------- -------------- -------------- --------------- ---------  192.1.10.1 On 0d 00:00:00 0d 00:00:12 Active user1 | 完全匹配得5分 |
| EG1#show web-auth direct-host range | 5 |
| EG1#show web-auth direct-host range  Direct host Ranges: 1  Start Address End Address Port Binding Group Description  --------------- --------------- -------------- --------------- ---------------  192.1.60.1 192.1.60.254 N/A N/A N/A | 完全匹配得5分 |

## EG2（80分）

|  |  |
| --- | --- |
| EG2#show access-lists | 5 |
| EG2#show access-lists  ip access-list extended 101  10 permit ip 194.1.10.0 0.0.0.255 60.1.0.0 0.0.255.255  ip access-list extended 102  10 permit ip 194.1.40.0 0.0.0.255 70.1.0.0 0.0.255.255 | 完全匹配得5分 |
| EG2#show route-map | 10 |
| EG2#show route-map  route-map Fenliu, permit, sequence 10  Match clauses:  ip address 101  Set clauses:  ip next-hop verify-availability 20.1.0.9 track 1  ip next-hop verify-availability 30.1.0.9 track 2  route-map Fenliu, permit, sequence 20  Match clauses:  ip address 102  Set clauses:  ip next-hop verify-availability 40.1.0.9 track 3  ip next-hop verify-availability 30.1.0.9 track 2 | 完全匹配得10分 |
| EG2#show track | 10 |
| EG2#show track  Track 1  Interface GigabitEthernet 0/2  The state is Up  1 change,current state last:30293 secs  Delay up 0 secs,down 0 secs  Track 2  Interface GigabitEthernet 0/3  The state is Up  1 change,current state last:30280 secs  Delay up 0 secs,down 0 secs  Track 3  Interface GigabitEthernet 0/4  The state is Up  4 change,current state last:3156 secs  Delay up 0 secs,down 0 secs | 完全匹配得10分 |
| EG2#show ip policy | 5 |
| Balance mode: redundance  Interface Route map  GigabitEthernet 0/0 Fenliu | 完全匹配得5分 |
| EG2#show content-policy | 5 |
| EG2#show content-policy  content-policy P2P  (inactive)app-rule 1 time-range work app-group P2PӦction deny audit cause 1/2/1/  content-policy \_AUDIT\_DEFAULT  (active)url-rule audit-default-enable  (active)web-search-rule audit-default-enable  (active)web-bbs-rule audit-default-enable  (active)web-mail-rule audit-default-enable  (active)im-rule audit-default-enable  (active)mail-rule audit-default-enable  (active)vid-rule audit-default-enable | 前3个匹配3分  其他完全匹配得2分 |
| EG2#show url-class user-cfg | 5 |
| EG2#show url-class user-cfg  url-class:un\_audit\_class  comment:unaudit  url-class:forbidClass  url: 40.1.0.9 | 完全匹配得5分 |
| EG2#sh run | include route-auto-choose | 5 |
| EG2#sh run | include route-auto-choose  route-auto-choose cnc GigabitEthernet 0/2 20.1.0.9  route-auto-choose cnii GigabitEthernet 0/3 30.1.0.9  route-auto-choose cernet GigabitEthernet 0/4 40.1.0.9 | 完全匹配得5分 |
| EG2#show app route | 5 |
| EG2#show app route  CLASS SRC-GRP DST-GRP INTERFACE(GROUP) TIME-RANGE STATE  ------------ ---------- -------------- ------------------------- ------------------ ----------  P2PӦ any any GigabitEthernet 0/3 Night Active | 完全匹配得5分 |
| EG2#show vpdn session | 10 |
| EG2#show vpdn session  L2TP Session Information Total sessions 1  LocID RemID TunID Username, Intf/ State Last Chg Vcid, Circuit  1 1 1 12,vp1 est 06:15:59  %No active PPTP tunnels | 前3个非0、第4个为est  得10分 |
| EG2#show crypto ipsec sa | 10 |
| EG2#show crypto ipsec sa  Interface: Virtual-ppp 1  Profile map tag:s\_l2tpMap\_1  ==================================  sub\_map type:profile, seqno:0, id=1  local ident (addr/mask/prot/port): (20.1.0.14/0.0.0.0/17/1701))  remote ident (addr/mask/prot/port): (20.1.0.6/0.0.0.0/17/1701))  PERMIT  #pkts encaps: 968, #pkts encrypt: 968, #pkts digest 968  #pkts decaps: 971, #pkts decrypt: 971, #pkts verify 971  #send errors 0, #recv errors 0  pkts encaps errors:  #negoitate pkt drop: 0, #sab useless: 0, encap data fail: 0, compute hash fail: 0  pkts decypto errors:  #check reply wind fail: 0, #compute hash fail: 0, verify hash fail: 0  #pkts detect send req: 0, recv reply: 0, recv req: 0, send reply: 0 | 前2个完全匹配得5分  其他非0得5分 |
| EG2#show ip ospf neighbor | 10 |
| EG2#show ip ospf neighbor  OSPF process 10, 2 Neighbors, 2 is Full:  Neighbor ID Pri State Dead Time Address Interface  11.1.0.5 1 Full/ - 00:00:38 10.1.0.10 GigabitEthernet 0/0  11.1.0.11 1 Full/ - 00:00:33 12.1.0.1 Virtual-ppp 1 | 每个2.5分 |

## AC1（40分）

|  |  |
| --- | --- |
| AC1#show ap-config summary | 10 |
| AC1#show ap-config summary  ========= show ap status =========  Radio: Radio ID or Band: 2.4G = 1#, 5G = 2#  E = enabled, D = disabled, N = Not exist  Current Sta number  Channel: \* = Global  Power Level = Percent  Online AP number: 2  Offline AP number: 0  AP Name IP Address Mac Address Radio Radio Up/Off time State  ------------ --------------- -------------- ------------------- ------------------- ------------- -----  BX-AP520-01 192.1.50.2 5869.6cf8.48ee 1 E 0 1\* 100 2 E 0 149\* 100 0:07:10:26 Run  BX-AP520-02 192.1.50.1 5869.6cf8.4a06 1 E 0 6\* 100 2 E 1 153\* 100 0:07:10:26 Run | 第1、3每个2分  第2、4每个3分 |
| AC1#show wlan-config cb 1 | 5 |
| AC1#show wlan-config cb 1  WLAN ID.................................. 1  SSID..................................... Ruijie-BX\_1  Profile..................................  MAC Mode................................. Local  Tunnel Mode.............................. Local Bridging  Suppress SSID............................ Disable  Sta-limit................................ 0  NAS ID...................................  Band Select.............................. Disable  SSID Code................................ | 完全匹配得5分 |
| AC1#show ap-group intf-wlan-map BX | 5 |
| AC1#show ap-group intf-wlan-map BX  WLAN ID SSID VLAN-Id/VLAN-Group ID Radio ID AP WLAN ID Enable  --------- ------------- ------------------------- ---------------- ---------------- ----------  1 Ruijie-BX\_1 60 ALL 1 True | 完全匹配得5分 |
| AC1#show wlan hot-backup 11.1.0.205 | 10 |
| AC1#show wlan hot-backup 11.1.0.205  wlan hot-backup 11.1.0.205  hot-backup : Enable  connect state : CHANNEL\_UP  hello-interval : 10  kplv-pkt : ip  work-mode : QUICK-SWITCH  !  context 1  hot-backup role : PAIR-STANDBY  hot-backup rdnd state : REALTIME-SYN  hot-backup priority : 4 | 每个5分 |
| AC1#show wlan security 1 | 5 |
| AC1#show wlan security 1  WLAN SSID : Ruijie-BX\_1  Security Policy : PSK  WPA version : RSN(WPA2)  AKM type : preshare key  pairwise cipher type: AES  group cipher type : AES  wpa\_passhraselen : 10  wpa\_passphrase : 31 32 33 34 35 36 37 38 39 30  group key : c3 1d b4 a8 0e 2f 60 2c a4 9c c5 63 78 26 85 75 | 完全匹配得5分 |
| AC1#show ip dhcp snooping binding (无线用户获取地址后收集) | 5 |
| AC1#show ip dhcp snooping binding  Total number of bindings: 1  NO. MACADDRESS IPADDRESS LEASE(SEC) TYPE VLAN INTERFACE  ----- ------------------ --------------- ------------ ------------- ----- --------------------  1 f816.54c0.9289 192.1.60.1 86084 DHCP-Snooping 60 Wlan 1 | 完全匹配得5分 |

## AC2（35分）

|  |  |
| --- | --- |
| AC2#show wlan arp-check list | 5 |
| AC2#show wlan arp-check list  INTERFACE SENDER MAC SENDER IP POLICY SOURCE  ------------------------ -------------------- -------------------- --------------------  Wlan 1 f816.54c0.9289 192.1.60.1 DHCP snooping | 完全匹配得5分 |
| AC2#show run | include wlan-based | 5 |
| AC2#show run | include wlan-based  wlan-based per-user-limit down-streams average-data-rate 800 burst-data-rate 1600 | 完全匹配得5分 |
| AC2#show ap-config running | 10 |
| AC2#show ap-config running  !  ap-config BX-AP520-01  ap-mac 5869.6cf8.48ee  ap-group BX  sta-limit 45  quiet-mode session 1  response-rssi 30 radio 1  response-rssi 30 radio 2  !  ap-config BX-AP520-02  ap-mac 5869.6cf8.4a06  ap-group BX  sta-limit 45  quiet-mode session 1  response-rssi 30 radio 1  response-rssi 30 radio 2 | 第1、3、4、6每个2分  第2、5每个1分 |
| AC2#show schedule session | 5 |
| AC2#show schedule session  schedule session 1:  schedule session 1 time-range 1 period Mon to Fri time 21:00 to 23:30 | 完全匹配得5分 |
| AC2#sh run | include disabled | 5 |
| AC2#sh run | include disabled  802.11g network rate 1 disabled  802.11g network rate 2 disabled  802.11g network rate 5 disabled  802.11b network rate 1 disabled  802.11b network rate 2 disabled  802.11b network rate 5 disabled  802.11a network rate 6 disabled  802.11a network rate 9 disabled | 完全匹配得5分 |
| AC2#show ip route ospf | 5 |
| AC2#show ip route ospf  O\*IA 0.0.0.0/0 [110/2] via 192.1.100.253, 00:05:38, VLAN 100  O 11.1.0.33/32 [110/1] via 192.1.100.252, 00:16:32, VLAN 100  O 11.1.0.34/32 [110/1] via 192.1.100.253, 00:16:32, VLAN 100  O 11.1.0.204/32 [110/1] via 192.1.100.2, 00:16:32, VLAN 100  O N1 172.16.0.0/22 [110/21] via 192.1.100.252, 00:16:32, VLAN 100  O 192.1.10.0/24 [110/2] via 192.1.100.252, 00:16:32, VLAN 100  O 192.1.20.0/24 [110/2] via 192.1.100.252, 00:16:32, VLAN 100  O 192.1.30.0/24 [110/2] via 192.1.100.252, 00:16:32, VLAN 100  O 192.1.40.0/24 [110/2] via 192.1.100.252, 00:16:32, VLAN 100 | 每条2.5分 |

## AP3（25分）

|  |  |
| --- | --- |
| AP3#show version | 10 |
| AP3#show version  System description : Ruijie indoor AP520(W2) (802.11a/n/ac and 802.11b/g/n) By Ruijie Networks.  System start time : 1969-12-31 23:59:59  System uptime : 0:02:19:43  System hardware version : 1.01  System software version : AP\_RGOS 11.1(5)B9P11, Release(05151211)  System patch number : NA  System serial number : G1LQ4JR034809  System boot version : 2.0.16 | 完全匹配得10分 |
| AP3#show dot11 wlan 1 | 5 |
| AP3#show dot11 wlan 1  Network Name (SSID): Ruijie-BJ\_1\_1  Interface.................... Dot11radio 1/0.3  Vlan (group) id.............. 30  MAC Address.................. 0669.6cf8.51fc  Beacon Period................ 100  RTS Threshold................ 2347  Fragment Threshold........... 2346  Radio Mode................... 11ng\_ht20  Channel...................... 2412(1)  Noise Floor.................. -102 dBm  Channel width................ 20Mhz  Current Tx Power Level....... 100%  Mcast rate .................. 24  Current CCA ................. 28 | 完全匹配得5分 |
| AP3#show dot11 wlan 2 | 5 |
| AP3#show dot11 wlan 2  Network Name (SSID): Ruijie-BJ\_1\_2  Interface.................... Dot11radio 1/0.4  Vlan (group) id.............. 40  MAC Address.................. 0a69.6cf8.51fc  Beacon Period................ 100  RTS Threshold................ 2347  Fragment Threshold........... 2346  Radio Mode................... 11ng\_ht20  Channel...................... 2412(1)  Noise Floor.................. -102 dBm  Channel width................ 20Mhz  Current Tx Power Level....... 100%  Mcast rate .................. 24  Current CCA ................. 28 | 完全匹配得5分 |
| AP3#show wids whitelist | 5 |
| AP3#show wids whitelist  ------------- White list Information ---------------  Total num:1  NUM MAC-ADDRESS  1 0479.7095.afb1 | 完全匹配得5分 |

## 验证测试（30分）

|  |  |
| --- | --- |
| tracert 20.1.0.6（PC1连接总部接入设备VLAN10接口获取IPV4地址后收集） | 5 |
| C:\Users\Administrator>tracert 20.1.0.6  通过最多 30 个跃点跟踪到 20.1.0.6 的路由  1 2 ms 1 ms 1 ms 192.1.10.252  2 1 ms <1 毫秒 <1 毫秒 20.1.0.6  跟踪完成。 | 路径正确得5分 |
| tracert 20.1.0.6（PC1连接总部无线SSID获取IPV4地址后收集） | 5 |
| C:\Users\Administrator>tracert 20.1.0.6  通过最多 30 个跃点跟踪到 20.1.0.6 的路由  1 1 ms 1 ms 1 ms 192.1.60.253  2 3 ms 3 ms 3 ms 192.1.100.253  3 2 ms 2 ms 1 ms 20.1.0.6  跟踪完成。 | 路径正确得5分 |
| ping ipv6 2001:195:10::254 source 2001:196:10::254（S7设备执行） | 5 |
| s7#ping ipv6 2001:195:10::254 source 2001:196:10::254  Sending 5, 100-byte ICMP Echoes to 2001:195:10::254, timeout is 2 seconds:  < press Ctrl+C to break >  !!!!!  Success rate is 100 percent (5/5), round-trip min/avg/max = 132/133/135 ms. | 能ping通得5分 |
| tracert 194.1.20.254（PC1连接总部接入设备VLAN10接口获取地址后收集） | 5 |
| C:\Users\Administrator>tracert 194.1.20.254  通过最多 30 个跃点跟踪到 194.1.20.254 的路由  1 1 ms 2 ms 1 ms 192.1.10.252  2 1 ms <1 毫秒 <1 毫秒 10.1.0.1  3 2 ms 2 ms 1 ms 12.1.0.2  4 5 ms 11 ms 3 ms 194.1.20.254  跟踪完成。 | 路径正确得5分 |
| tracert 60.1.10.254（PC3连接分部接入设备VLAN11接口配置地址后收集） | 5 |
| C:\Users\Administrator>tracert 60.1.10.254  通过最多 30 个跃点跟踪到 60.1.10.254 的路由  1 1 ms 1 ms 1 ms 194.1.10.254  2 1 ms <1 毫秒 <1 毫秒 10.1.0.9  3 <1 毫秒 <1 毫秒 <1 毫秒 20.1.0.9  4 3 ms 2 ms 2 ms 60.1.10.254  跟踪完成。 | 路径正确得5分 |
| tracert 70.1.20.254（PC3连接分部胖AP 获取VLAN40地址后收集） | 5 |
| C:\Users\Administrator>tracert 70.1.20.254  通过最多 30 个跃点跟踪到 70.1.20.254 的路由  1 8 ms 3 ms 3 ms 194.1.40.254  2 2 ms 2 ms 1 ms 10.1.0.9  3 4 ms 4 ms 2 ms 40.1.0.9  4 3 ms 3 ms 3 ms 70.1.20.254  跟踪完成。 | 路径正确得5分 |