A logo with a globe and a graduation cap

Description automatically generatedA egyptian god holding a staff

Description automatically generated

**Prepared By:**

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**Supervised By:**

Eng. Sameh Kamal El-shamy

**Course:**

Cisco Network Administrator

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4. Email server
5. RADIUS & AAA server
6. NTP & Syslog server

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**Introduction**

This document provides a detailed overview of the project undertaken to interconnect two branches of our company: the Cairo branch and the Paris branch. The objective is to establish a reliable, secure, and efficient network connection between the two locations using dual Internet Service Providers (ISPs) and Virtual Private Network (VPN) technologies. This setup ensures redundancy, load balancing, and secure data transmission between the branches.

**Project Overview**

The project involves connecting the Cairo branch, consisting of five floors, with the Paris branch, comprising six floors. Both branches are interconnected via two ISPs, WE and Vodafone, ensuring high availability and redundancy. Additionally, a VPN setup is implemented to secure the data transmission between the branches. Each floor within the branches is segmented into specific VLANs to optimize network performance and security.

**Team Responsibilities**

**Ahmed Sabry**

* **Responsibilities:**
  + **DHCP on Layer 3 Switches**
  + **VPN Configuration**
  + **Web Server Configuration**
  + **FTP Server Configuration**
  + **Email Server Configuration**
  + **RADIUS & AAA Server Configuration**
  + **NTP & Syslog Server Configuration**
  + **DNS Server Configuration**

**Ebrahim Mohamed**

* **Responsibilities:**
  + **Basic Configuration of Routers & Switches:**
    - **Host Name Configuration**
    - **Banner MOTD Configuration**
    - **Line Console Configuration**
    - **Line VTY Configuration**
    - **VTP Configuration**
    - **DTP Configuration**

**Shady Hossam**

* **Responsibilities:**
  + **Advanced Configurations**
    - **EtherChannel Configuration**
    - **HSRP Configuration**
    - **OSPF Configuration**
    - **STP Configuration**

**Mohamed Nabawy**

* **Responsibilities:**
  + **Security Configurations:**
    - **Layer 2 Security Configurations**
    - **NAT Configuration**
    - **ACL Configuration**
    - **Static & Default Route Configuration**

**Mohamed Elsayed**

* **Responsibilities:**
  + **Planning and Designing**
  + **Subnetting and IP Addressing**
  + **IVLAN Configuration**
  + **Wireless Configurations**
  + **Ensure All Deliverables**

**Network Topology**

**Cairo Branch**

* **Structure:**
  + **Number of Floors:** 5
  + **Switches:**
    - **Layer 2 Switches:** one per floor
    - **Layer 3 Switches:** Two, connected to the Layer 2 switches
  + **Routers:** Two, each connected to a Layer 3 switch
  + **ISPs:** Connected to each router (WE and Vodafone)
* **VLANs:**
  + **VLAN 10:** HR
  + **VLAN 20:** Sales
  + **VLAN 30:** IT
  + **VLAN 40:** CEO
  + **VLAN 50:** Finance
  + **VLAN 99:** Native
  + **VLAN 100:** Management (MGMT)
  + **VLAN 150:** VOIP
  + **VLAN 160:** WLAN
  + **VLAN 170:** Printer
  + **VLAN 200:** Unused

**Paris Branch**

* **Structure:**
  + **Number of Floors:** 6
  + **Switches:**
    - **Layer 2 Switches:** one per floor
    - **Layer 3 Switches:** Two, connected to the Layer 2 switches
  + **Routers:** Two, each connected to a Layer 3 switch
  + **ISPs:** Connected to each router (WE and Vodafone)
* **VLANs:**
  + **VLAN 10:** PR
  + **VLAN 20:** C&S
  + **VLAN 30:** SE
  + **VLAN 40:** IT
  + **VLAN 50:** HR
  + **VLAN 60:** R&D
  + **VLAN 99:** Native
  + **VLAN 150:** VOIP
  + **VLAN 160:** WLAN
  + **VLAN 170:** Printer
  + **VLAN 100:** Management (MGMT)
  + **VLAN 200:** Unused

**VLAN Configuration**

**Cairo Branch VLANs**

| **VLAN ID** | **Name** | **Description** |
| --- | --- | --- |
| 10 | HR | Human Resources |
| 20 | Sales | Sales Department |
| 30 | IT | Information Technology |
| 40 | CEO | Chief Executive Officer |
| 50 | Finance | Finance Department |
| 99 | Native | Native VLAN for untagged traffic |
| 100 | Management | Network Management |
| 150 | VOIP | Voice Over IP |
| 160 | WLAN | Wireless LAN |
| 170 | Unused | Printer |
| 200 | Unused | Reserved for future use |

**Paris Branch VLANs**

| **VLAN ID** | **Name** | **Description** |
| --- | --- | --- |
| 10 | PR | Public Relations |
| 20 | C&S | C&S Department |
| 30 | SE | Software Engineering |
| 40 | IT | Information Technology |
| 50 | HR | Human Resources |
| 60 | R&D | Research and Development |
| 99 | Native | Native VLAN for untagged traffic |
| 100 | Management | Network Management |
| 150 | VOIP | Voice Over IP |
| 160 | WLAN | Wireless LAN |
| 170 | Unused | Printer |

**ISP Connectivity**

**WE ISP**

* **Connection Details:**
  + **Link Type:** Fiber Optic
  + **Redundancy:** Dual ISP setup with Vodafone
* **Connections:**
  + **Cairo Branch:** Connected to both Layer 3 routers
  + **Paris Branch:** Connected to both Layer 3 routers

**Vodafone ISP**

* **Connection Details:**
  + **Link Type:** DSL
  + **Redundancy:** Dual ISP setup with WE
* **Connections:**
  + **Cairo Branch:** Connected to both 2 routers
  + **Paris Branch:** Connected to both 2 routers

**Server Connectivity**

Both ISPs are connected to three key servers:

| **Server** | **Description** |
| --- | --- |
| FACEBOOK | Facebook Recognition Server |
| YOUTUBE | YouTube Streaming Server |
| TWITTER | Twitter Integration Server |

**VPN Configuration**

A Virtual Private Network (VPN) is established between the Cairo and Paris branches to ensure secure communication over the internet. The VPN setup includes:

* **VPN Type:** Site-to-Site GRE VPN
* **Redundancy:** Dual ISP connections to ensure high availability
* **Routing Protocol:** OSPF for dynamic routing over the VPN

**Server Configuration**

**Web Server**

* **Function:** Hosts the company’s official website.
* **Configuration:** Secured with SSL certificates, accessible via HTTPS.

**FTP Server**

* **Function:** Facilitates file transfers within the organization.
* **Configuration:** Configured with user authentication and access controls.

**Email Server**

* **Function:** Manages company email communications.
* **Configuration:** Integrated with Active Directory for user management.

**RADIUS & AAA Server**

* **Function:** Handles authentication, authorization, and accounting for network access.
* **Configuration:** Integrated with network devices for secure access control.

**NTP & Syslog Server**

* **Function:** Synchronizes network device clocks and logs system events.
* **Configuration:** Configured to provide accurate time stamps and centralized logging.

**Security Configurations**

**Layer 2 Security Configurations**

**DHCP Snooping**

* **Description:** Protects against rogue DHCP servers by allowing only trusted DHCP messages.
* **Configuration:**

**ARP Inspection**

* **Description:** Prevents ARP spoofing by validating ARP packets against DHCP Snooping Binding Table.
* **Configuration:**

**NAT (Network Address Translation)**

* **Description:** Translates private IP addresses to public IP addresses for internet access.
* **Configuration:**

**VPN (Virtual Private Network)**

* **Description:** Secures data transmission between Cairo and Paris branches.

**ACL (Access Control Lists)**

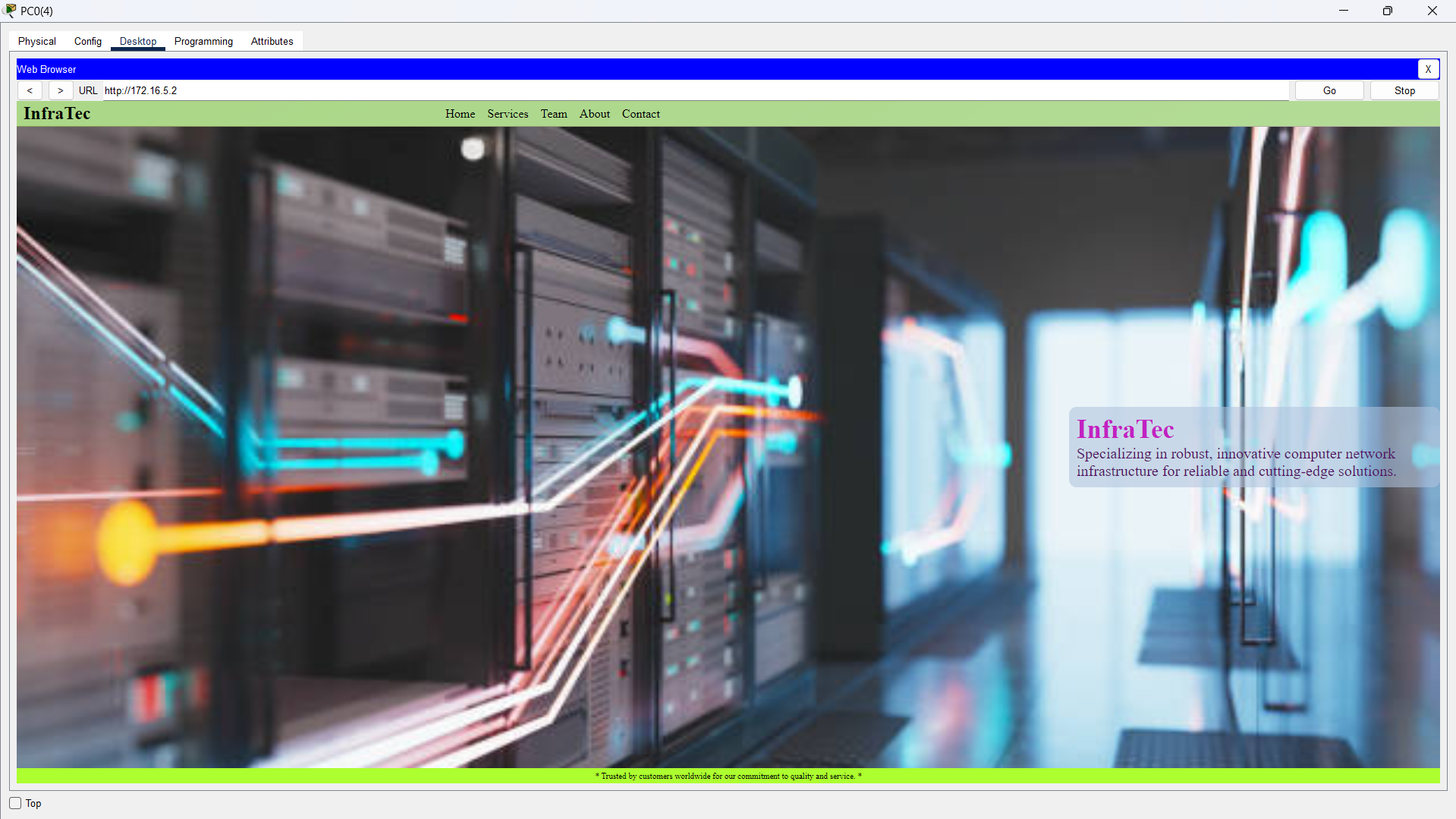
* **Description:** Controls traffic flow and restricts unauthorized access.

**Configuration**

1.Web server

صورة تحتوي على نص, لقطة شاشة, عرض, برمجيات

تم إنشاء الوصف تلقائياً



2.DNS server

صورة تحتوي على نص, لقطة شاشة, عرض, رقم

تم إنشاء الوصف تلقائياً

3.FTP server

صورة تحتوي على نص, لقطة شاشة, عرض, برمجيات

تم إنشاء الوصف تلقائياً

4.Email server

صورة تحتوي على نص, لقطة شاشة, عرض, برمجيات

تم إنشاء الوصف تلقائياً

5.RADIUS & AAA server

صورة تحتوي على نص, لقطة شاشة, عرض, رقم

تم إنشاء الوصف تلقائياً

6.NTP & Syslog server

صورة تحتوي على نص, لقطة شاشة, برمجيات, رقم

تم إنشاء الوصف تلقائياً

صورة تحتوي على نص, لقطة شاشة, رقم, عرض

تم إنشاء الوصف تلقائياً

WLC

A screenshot of a computer

Description automatically generated

A computer screen shot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generatedA screenshot of a report

Description automatically generated

A computer screen shot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

**HQ\_DS\_sw-1**

|  |  |
| --- | --- |
| * **Host name**   **hostname HQ\_DS\_sw\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Trunk, Native Interfaces**   **int range g1/0/5-10**  **no sh**  **switchport mode trunk**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**  **int g1/0/12**  **no switchport**  **ip add 172.16.1.5 255.255.255.252**  **interface GigabitEthernet1/0/20**  **switchport trunk native vlan 100**  **switchport mode trunk**   * **IVLAV , HSRP , Helper-address**   **int vlan 10**  **description Default Gateway SVI for HR Team**  **ip add 172.16.10.2 255.255.255.0**  **standby 10 ip 172.16.10.1**  **standby 10 priority 200**  **standby 10 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 20**  **description Default Gateway SVI for Sales Team**  **ip add 172.16.20.2 255.255.255.0**  **standby 20 ip 172.16.20.1**  **standby 20 priority 200**  **standby 20 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 30**  **description Default Gateway SVI for IT Team**  **ip add 172.16.30.2 255.255.255.0**  **standby 30 ip 172.16.30.1**  **standby 30 priority 200**  **standby 30 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 100**  **description Default Gateway SVI for Management Team**  **ip add 172.16.100.2 255.255.255.0**  **standby 100 ip 172.16.100.1**  **standby 100 priority 200**  **standby 100 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 40**  **description Default Gateway SVI for CEO Team**  **ip add 172.16.40.2 255.255.255.0**  **standby 40 ip 172.16.40.1**  **standby 40 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 50**  **description Default Gateway SVI for Finance Team**  **ip add 172.16.50.2 255.255.255.0**  **standby 50 ip 172.16.50.1**  **standby 50 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 150**  **description Default Gateway SVI for VIOP devices**  **ip add 172.16.150.2 255.255.255.0**  **standby 150 ip 172.16.150.1**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **DHCP**   **ip dhcp pool HR**  **network 172.16.10.0 255.255.255.0**  **default-router 172.16.10.1**  **dns-server 172.16.5.18**  **ip dhcp pool Sales**  **network 172.16.20.0 255.255.255.0**  **default-router 172.16.20.1**  **dns-server 172.16.5.18**  **ip dhcp pool IT**  **network 172.16.30.0 255.255.255.0**  **default-router 172.16.30.1**  **dns-server 172.16.5.18**  **ip dhcp pool CEO**  **network 172.16.40.0 255.255.255.0**  **default-router 172.16.40.1**  **dns-server 172.16.5.18**  **ip dhcp pool Finance**  **network 172.16.50.0 255.255.255.0**  **default-router 172.16.50.1**  **dns-server 172.16.5.18**  **ip dhcp pool MGMT**  **network 172.16.100.0 255.255.255.0**  **default-router 172.16.100.1**  **dns-server 172.16.5.18**  **ip dhcp pool Voip**  **network 172.16.150.0 255.255.255.0**  **default-router 172.16.150.1**  **dns-server 172.16.5.18**  **ip dhcp pool Wlan**  **network 172.16.160.0 255.255.255.0**  **default-router 172.16.160.1** | * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode server**  **vtp password cisco**  **vlan 10**  **name HR**  **vlan 20**  **name Sales**  **vlan 30**  **name IT**  **vlan 40**  **name CEO**  **vlan 50**  **name Finance**  **vlan 100**  **name MGMT**  **vlan 150**  **name VIOP**  **vlan 160**  **name Wlan**  **vlan 170**  **name Printer**  **vlan 99**  **name Native**  **vlan 200**  **name Unused**   * **STP**   **spanning tree mode pvst**  **spanning tree vlan 10,20,30,100 root primary**  **spanning tree vlan 40,50,150,160,170 root secondary**   * **Ether-channel**   **int range g1/0/1-4**  **no switchport**  **channel-group 10 mode active**  **no sh**  **int port-channel 10**  **ip add 172.16.1.1 255.255.255.252**  **switchport trunk native vlan 99**  **no sh**   * **Unused Interfaces**   **int range g1/0/11-19,g1/0/21-24, g1/1/1-4**  **sh**  **switchport mode access**  **switchport access vlan 200**  **standby 150 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 160**  **description Default Gateway SVI for Wlan devices**  **ip add 172.16.160.2 255.255.255.0**  **standby 160 ip 172.16.160.1**  **standby 160 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 170**  **description Default Gateway SVI for Printer devices**  **ip add 172.16.170.2 255.255.255.0**  **standby 170 ip 172.16.170.1**  **standby 170 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **dns-server 172.16.5.18**  **ip dhcp pool Printer**  **network 172.16.170.0 255.255.255.0**  **default-router 172.16.170.1**  **dns-server 172.16.5.18**  **ip dhcp excluded-address 172.16.10.1 172.16.10.49**  **ip dhcp excluded-address 172.16.10.125 172.16.10.255**  **ip dhcp excluded-address 172.16.20.1 172.16.20.49**  **ip dhcp excluded-address 172.16.20.125 172.16.20.255**  **ip dhcp excluded-address 172.16.30.1 172.16.30.49**  **ip dhcp excluded-address 172.16.30.125 172.16.30.255**  **ip dhcp excluded-address 172.16.40.1 172.16.40.49**  **ip dhcp excluded-address 172.16.40.125 172.16.40.255**  **ip dhcp excluded-address 172.16.50.1 172.16.50.49**  **ip dhcp excluded-address 172.16.50.125 172.16.50.255**  **ip dhcp excluded-address 172.16.100.1 172.16.100.49**  **ip dhcp excluded-address 172.16.100.125 172.16.100.255**  **ip dhcp excluded-address 172.16.150.1 172.16.150.49**  **ip dhcp excluded-address 172.16.150.125 172.16.150.255**  **ip dhcp excluded-address 172.16.160.1 172.16.160.49**  **ip dhcp excluded-address 172.16.160.125 172.16.160.255**  **ip dhcp excluded-address 172.16.170.1 172.16.170.49**  **ip dhcp excluded-address 172.16.170.125 172.16.170.255** |

**HQ\_DS\_sw\_2**

|  |  |
| --- | --- |
| * **Host name**   **hostname HQ\_DS\_sw\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **-Trunk Interfaces**   **int range g1/0/5-10**  **no sh**  **switchport mode trunk**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**  **int g1/0/12**  **no switchport**  **ip add 172.16.1.13 255.255.255.252**   * **Unused Interfaces**   **int range g1/0/11-24, g1/1/1-4**  **sh**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning tree mode pvst**  **spanning tree vlan 40,50,150,160,170 root primary**  **spanning tree vlan 10,20,30,100 root secondary**   * **IVLAV , HSRP , Helper-address**   **int vlan 10**  **description Default Gateway SVI for HR Team**  **ip add 172.16.10.3 255.255.255.0**  **standby 10 ip 172.16.10.1**  **standby 10 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 20**  **description Default Gateway SVI for Sales Team**  **ip add 172.16.20.3 255.255.255.0**  **standby 20 ip 172.16.20.1**  **standby 20 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 30**  **description Default Gateway SVI for IT Team**  **ip add 172.16.30.3 255.255.255.0**  **standby 30 ip 172.16.30.1**  **standby 30 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 100**  **description Default Gateway SVI for Management Team**  **ip add 172.16.100.3 255.255.255.0**  **standby 100 ip 172.16.100.1**  **standby 100 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 40**  **description Default Gateway SVI for CEO Team**  **ip add 172.16.40.3 255.255.255.0**  **standby 40 ip 172.16.40.1**  **standby 40 priority 200**  **standby 40 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 50**  **description Default Gateway SVI for Finance Team**  **ip add 172.16.50.3 255.255.255.0**  **standby 50 ip 172.16.50.1**  **standby 50 priority 200**  **standby 50 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 150**  **description Default Gateway SVI for VIOP devices**  **ip add 172.16.150.3 255.255.255.0**  **standby 150 ip 172.16.150.1**  **standby 150 priority 200**  **standby 150 preempt**   * **OSPF , Static Routing**   **ip routing**  **router ospf 10**  **router-id 2.2.2.2**  **passive-interface GigabitEthernet1/0/6**  **passive-interface GigabitEthernet1/0/7**  **passive-interface GigabitEthernet1/0/8**  **passive-interface GigabitEthernet1/0/9**  **passive-interface GigabitEthernet1/0/10**  **passive-interface GigabitEthernet1/0/20**  **network 172.16.1.0 0.0.0.3 area 0**  **network 172.16.10.0 0.0.0.255 area 0**  **network 172.16.20.0 0.0.0.255 area 0**  **network 172.16.30.0 0.0.0.255 area 0**  **network 172.16.40.0 0.0.0.255 area 0**  **network 172.16.50.0 0.0.0.255 area 0**  **network 172.16.100.0 0.0.0.255 area 0**  **network 172.16.150.0 0.0.0.255 area 0**  **network 172.16.160.0 0.0.0.255 area 0**  **network 172.16.1.12 0.0.0.3 area 0**  **network 172.16.1.28 0.0.0.3 area 0**  **network 172.16.170.0 0.0.0.255 area 0**  **ip route 172.16.5.34 255.255.255.255 172.16.5.30**  **ip route 172.16.5.35 255.255.255.255 172.16.5.30**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35** | * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode server**  **vtp password cisco**  **vlan 10**  **name HR**  **vlan 20**  **name Sales**  **vlan 30**  **name IT**  **vlan 40**  **name CEO**  **vlan 50**  **name Finance**  **vlan 100**  **name MGMT**  **vlan 150**  **name VIOP**  **vlan 160**  **name Wlan**  **vlan 170**  **name Printer**  **vlan 99**  **name Native**  **vlan 200**   * **Ether-channel**   **int port-channel 10**  **ip add 172.16.1.2 255.255.255.252**  **no sh**  **int range g1/0/1-4**  **no switchport**  **channel-group 10 mode auto**  **no sh**  **int port-channel 25**  **ip add 172.16.1.29 255.255.255.252**  **no sh**  **int range g1/0/14-15**  **no switchport**  **channel-group 25 mode active**  **no sh**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 160**  **description Default Gateway SVI for Wlan devices**  **ip add 172.16.160.3 255.255.255.0**  **standby 160 ip 172.16.160.1**  **standby 160 priority 200**  **standby 160 preempt**  **ip helper-address 172.16.1.19**  **no sh**  **int vlan 170**  **description Default Gateway SVI for Printer devices**  **ip add 172.16.170.3 255.255.255.0**  **standby 170 ip 172.16.170.1**  **standby 170 priority 200**  **standby 170 preempt**  **ip helper-address 172.16.1.19**  **no sh**   * **DHCP**   **ip dhcp pool HR**  **network 172.16.10.0 255.255.255.0**  **default-router 172.16.10.1**  **dns-server 172.16.5.18**  **ip dhcp pool Sales**  **network 172.16.20.0 255.255.255.0**  **default-router 172.16.20.1**  **dns-server 172.16.5.18**  **ip dhcp pool IT**  **network 172.16.30.0 255.255.255.0**  **default-router 172.16.30.1**  **dns-server 172.16.5.18**  **ip dhcp pool CEO**  **network 172.16.40.0 255.255.255.0**  **default-router 172.16.40.1**  **dns-server 172.16.5.18**  **ip dhcp pool Finance**  **network 172.16.50.0 255.255.255.0**  **default-router 172.16.50.1**  **dns-server 172.16.5.18**  **ip dhcp pool MGMT**  **network 172.16.100.0 255.255.255.0**  **default-router 172.16.100.1**  **dns-server 172.16.5.18**  **ip dhcp pool Voip**  **network 172.16.150.0 255.255.255.0**  **default-router 172.16.150.1**  **dns-server 172.16.5.18**  **ip dhcp pool Wlan**  **network 172.16.160.0 255.255.255.0**  **default-router 172.16.160.1**  **dns-server 172.16.5.18**  **ip dhcp pool Printer**  **network 172.16.170.0 255.255.255.0**  **default-router 172.16.170.1**  **dns-server 172.16.5.18**  **ip dhcp excluded-address 172.16.10.1 172.16.10.124**  **ip dhcp excluded-address 172.16.10.200 172.16.10.255**  **ip dhcp excluded-address 172.16.20.1 172.16.20.124**  **ip dhcp excluded-address 172.16.20.200 172.16.20.255**  **ip dhcp excluded-address 172.16.30.1 172.16.30.124**  **ip dhcp excluded-address 172.16.30.200 172.16.30.255**  **ip dhcp excluded-address 172.16.40.1 172.16.40.124**  **ip dhcp excluded-address 172.16.40.200 172.16.40.255**  **ip dhcp excluded-address 172.16.50.1 172.16.50.124**  **ip dhcp excluded-address 172.16.50.200 172.16.50.255**  **ip dhcp excluded-address 172.16.100.1 172.16.100.124**  **ip dhcp excluded-address 172.16.100.200 172.16.100.255**  **ip dhcp excluded-address 172.16.150.1 172.16.150.124**  **ip dhcp excluded-address 172.16.150.200 172.16.150.255**  **ip dhcp excluded-address 172.16.160.1 172.16.160.124**  **ip dhcp excluded-address 172.16.160.200 172.16.160.255**  **ip dhcp excluded-address 172.16.170.1 172.16.170.124**  **ip dhcp excluded-address 172.16.170.200 172.16.170.255** |

**HQ\_R\_1**

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| * **Host name**   **hostname HQ\_R\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **Line console**   **line con 0**  **login authentication AAA**   * **Line VTY (ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **access-class VTY in**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **transport input ssh**   * **STP**   **spanning-tree mode pvst**   * **IP , NAT**   **int GigabitEthernet0/0**  **no sh**  **ip add 172.16.1.6 255.255.255.252**  **ip nat inside**  **int GigabitEthernet0/1**  **no sh**  **ip address 172.16.2.21 255.255.255.252**  **ip nat inside**  **interface GigabitEthernet0/1/0**  **ip address dhcp**  **ip nat outside**  **ip nat inside source list 120 interface GigabitEthernet0/1/0 overload** | * **OSPF , Static Routing**   **router ospf 10**  **router-id 6.6.6.6**  **network 172.16.2.20 0.0.0.3 area 0**  **network 172.16.1.4 0.0.0.3 area 0**  **network 209.1.34.0 0.0.0.255 area 0**  **default-information originate**  **ip route 0.0.0.0 0.0.0.0 209.1.34.1**  **ip route 209.1.12.0 255.255.255.0 209.1.34.1**  **ip route 172.17.0.0 255.255.0.0 5.0.0.2**   * **VPN**   **interface Tunnel1**  **ip address 5.0.0.1 255.255.255.252**  **mtu 1476**  **tunnel source GigabitEthernet0/1/0**  **tunnel destination 209.1.12.8**   * **ACL**   **access-list 110 permit ip 172.16.0.0 0.0.255.255 172.17.0.0 0.0.255.255**  **access-list 120 deny ip 172.16.0.0 0.0.255.255 172.17.0.0 0.0.255.255**  **access-list 120 deny ip 172.16.50.0 0.0.0.255 209.1.0.0 0.0.255.255**  **access-list 120 permit ip 172.16.0.0 0.0.255.255 any**  **ip access-list extended VTY**  **permit ip 172.16.30.0 0.0.0.255 any**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.40.0 0.0.0.255 any**  **permit ip 172.17.20.0 0.0.0.255 any**  **deny tcp any any**   * **FTP Service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP Service**   **ntp server 172.16.5.35**   * **Syslog Service**   **logging 172.16.5.35** |

**HQ\_R\_2**

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| * **Host name**   **hostname HQ\_R\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **Line console**   **line con 0**  **login authentication AAA**   * **Line VTY (ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **access-class VTY in**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **transport input ssh**   * **STP**   **spanning-tree mode pvst**   * **IP , NAT**   **int GigabitEthernet0/0**  **no sh**  **ip address 172.16.1.14 255.255.255.252**  **ip nat inside**  **int GigabitEthernet0/1**  **no sh**  **ip address 172.16.2.22 255.255.255.252**  **ip nat inside**  **interface GigabitEthernet0/1/0**  **interface GigabitEthernet0/1/0**  **ip address dhcp**  **ip nat outside**  **ip nat inside source list 120 interface GigabitEthernet0/1/0 overload** | * **OSPF , Static Routing**   **router ospf 10**  **router-id 5.5.5.5**  **network 172.16.2.20 0.0.0.3 area 0**  **network 172.16.1.12 0.0.0.3 area 0**  **network 209.1.33.0 0.0.0.255 area 0**  **default-information originate**  **ip route 0.0.0.0 0.0.0.0 209.1.33.1**  **ip route 209.1.22.0 255.255.255.0 209.1.33.1**  **ip route 172.17.0.0 255.255.0.0 5.0.0.6**   * **VPN**   **interface Tunnel1**  **ip address 5.0.0.5 255.255.255.252**  **mtu 1476**  **tunnel source GigabitEthernet0/1/0**  **tunnel destination 209.1.22.8**   * **ACL**   **a ip access-list extended VTY**  **permit ip 172.16.30.0 0.0.0.255 any**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.40.0 0.0.0.255 any**  **permit ip 172.17.20.0 0.0.0.255 any**  **deny tcp any any**  **access-list 120 deny ip 172.16.0.0 0.0.255.255 172.17.0.0 0.0.255.255**  **access-list 120 deny ip 172.16.50.0 0.0.0.255 209.1.0.0 0.0.255.255**  **access-list 120 permit ip 172.16.0.0 0.0.255.255 any**   * **FTP Service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP Service**   **ntp server 172.16.5.35**   * **Syslog Service**   **logging 172.16.5.35** |

**HQ\_DC\_sw**

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| * **Host name**   **hostname HQ\_DC\_sw**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Vlans**   **vlan 5**  **name Zone\_1**  **vlan 15**  **name Zone\_2**  **vlan 25**  **name Zone\_3**  **vlan 99**  **vlan 100**  **name MGMT**  **name Native**  **vlan 200**  **name Unused**   * **OSPF**   **router ospf 10**  **router-id 3.3.3.3**  **passive-interface FastEthernet0/4**  **passive-interface FastEthernet0/5**  **passive-interface FastEthernet0/6**  **passive-interface FastEthernet0/7**  **passive-interface FastEthernet0/8**  **passive-interface FastEthernet0/9**  **network 172.16.5.16 0.0.0.15 area 0**  **network 172.16.5.32 0.0.0.15 area 0**  **network 172.16.5.48 0.0.0.15 area 0**  **network 172.16.1.28 0.0.0.3 area 0**  **network 172.16.5.0 0.0.0.15 area 0**   * **Unused Interfces**   **int range FastEthernet0/10-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP bpduguard**   **int range FastEthernet0/4-9**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **NTP service**  **ntp server 172.16.5.35**  **Syslog service**  **logging 172.16.5.35** | * **Ether-channel**   **int port-channel 5**  **no switchport**  **ip add 172.16.1.30 255.255.255.252**  **no sh**  **int range GigabitEthernet0/2-3**  **no switchport**  **channel-group 5 mode passive**  **no sh**   * **IVLAN**   **interface Vlan5**  **description Default Gateway SVI for Web & FTP Servers**  **ip address 172.16.5.1 255.255.255.240**  **interface Vlan15**  **description Default Gateway SVI for Email & DHCP Servers**  **ip address 172.16.5.17 255.255.255.240**  **interface Vlan25**  **description Default Gateway SVI for RADUIS & NTP & Syslog Servers**  **ip address 172.16.5.33 255.255.255.240**  **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.1.30 255.255.255.0**   * **Access Interfaces**   **int range FastEthernet0/4-5**  **no shutdown**  **switchport mode access**  **switchport access vlan 5**  **int range FastEthernet0/6-7**  **no shutdown**  **switchport mode access**  **switchport access vlan 15**  **int range FastEthernet0/8-9**  **no shutdown**  **switchport mode access**  **switchport access vlan 25** |

**HQ\_Acc\_sw\_1**

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| * **Host name**   **hostname HQ\_Acc\_sw\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.100.21 255.255.255.0**  **ip default-gateway 172.16.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**HQ\_Acc\_sw\_2**

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| * **Host name**   **hostname HQ\_Acc\_sw\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.100.22 255.255.255.0**  **ip default-gateway 172.16.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**HQ\_Acc\_sw\_3**

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| * **Host name**   **hostname HQ\_Acc\_sw\_3**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **Unused Interfaces**   **int range FastEthernet0/6-9 , FastEthernet0/11-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-5 , FastEthernet0/10**  **spanning-tree portfast**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.100.23 255.255.255.0**  **ip default-gateway 172.16.100.1**  **spanning-tree bpduguard enable**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** | **spanning-tree bpduguard**   * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/4**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/5**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/10**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast** |

**HQ\_Acc\_sw\_4**

|  |  |
| --- | --- |
| * **Host name**   **hostname HQ\_Acc\_sw\_4**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.100.24 255.255.255.0**  **ip default-gateway 172.16.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**HQ\_Acc\_sw\_5**

|  |  |
| --- | --- |
| * **Host name**   **hostname HQ\_Acc\_sw\_5**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.16.100.25 255.255.255.0**  **ip default-gateway 172.16.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**  **radius server 172.16.5.34**  **address ipv4 172.16.5.34 auth-port 1645**  **key Cisco123**   * **NTP service**   **ntp server 172.16.5.35**   * **Syslog service**   **logging 172.16.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**Head Quarter Data Sheets**

* 1. **Routers**

**Router 1 (Head Quarter)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Device | Model | Description | Location | IOS |
| HQ\_R\_1 | ISR 2911 | Primary Edge Router | Cairo Branch | Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc2) |
| Interface | Description | IPv4 Address | MAC Address | Routing |
| Port-channel20 | Port-channel | 172.16.1.21/30 | 00d0.d399.e4c0 | N/A |
| GigabitEthernet0/0 | Connected to HQ\_DS\_sw\_1 | 172.16.1.6/30 | 0001.c78c.5401 | OSPF |
| GigabitEthernet0/1 | Channel group 20 | Unassigned | 0001.c78c.5402 | N/A |
| GigabitEthernet0/2 | 0001.c78c.5403 |
| GigabitEthernet0/1/0 | Connected to ISP (WE) | 209.1.34.8/24 | 000a.414d.3461 | N/A |
| Tunnel1 | Connected to Br\_R\_1 | 5.0.0.1/30 | N/A | N/A |

**Router 2 (Head Quarter)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Device | Model | Description | Location | IOS |
| HQ\_R\_2 | ISR 2911 | Secondary Edge Router | Cairo Branch | Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc2) |
| Interface | Description | IPv4 Address | MAC Address | Routing |
| Port-channel20 | Port-channel | 172.16.1.22/30 | 0010.111a.4567 | N/A |
| GigabitEthernet0/0 | Connected to HQ\_DS\_sw\_2 | 172.16.1.14/30 | 00d0.bcde.2401 | OSPF |
| GigabitEthernet0/1 | Channel group 20 | Unassigned | 00d0.bcde.2402 | N/A |
| GigabitEthernet0/2 | 00d0.bcde.2403 |
| GigabitEthernet0/1/0 | Connected to ISP (Vodafone) | 209.1.33.8/24 | 0005.5e71.b602 | N/A |
| Tunnel1 | Connected to Br\_R\_2 | 5.0.0.5/30 | N/A | N/A |

**1.2 L3 Switches:**

**L3 Switch 1 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | | | Location | | | IOS | | VTP (V2) | |
| HQ\_DS\_sw\_1 | | 3650-24PS | Primary L3 Switch | | | Cairo Branch | | | Cisco IOS Software [Denali], Catalyst L3 Switch Software (CAT3K\_CAA-UNIVERSALK9-M), Version 16.3.2, RELEASE SOFTWARE (fc4) | | Domain:  Cisco.com  Password:  Cisco | |
| Port | Description | | | Access | VLAN | | Trunk | IPv4 Address | | Native | | Enabled |
| G 1/0/1 - 4 | Connected to HQ\_DS\_sw\_2  (Channel-group 10) (Pagp) | | | - | - | | - | Unassigned | | - | | Yes |
| G 1/0/5 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/6 - 10 | Connected VLANs (50 - 10) | | | - | - | | Yes | 99 | | Yes |
| G 1/0/11 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/12 | Connected to HQ\_R\_2 | | | - | - | | - | 172.16.1.5  /30 | | - | | Yes |
| G 1/0/14 - 19 | - | | | Yes | 200 | | - | Unassigned | | - | | Shut |
| G 1/0/20 | Connected to HQ\_WLC | | | - | 200 | | Yes | 100 | | Yes |
| G 1/0/21 - 24 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/1/1 - 4 | - | | | Yes | 200 | | - | - | | Shut |
|  | | | | | | | | - | |  | | - |
| VLAN 10 | Connected to HQ\_DS\_sw\_1 & HQ\_DS\_sw\_2 | | | - | - | | - | 172.16.10.2 | | - | | Yes |
| VLAN 20 | - | - | | - | 172.16.20.2 | | - | | Yes |
| VLAN 30 | - | - | | - | 172.16.30.2 | | - | | Yes |
| VLAN 40 | - | - | | - | 172.16.40.2 | | - | | Yes |
| VLAN 50 | - | - | | - | 172.16.50.2 | | - | | Yes |
| VLAN 100 | - | - | | - | 172.16.100.2 | | - | | Yes |
| VLAN 150 | - | - | | - | 172.16.150.2 | | - | | Yes |
| VLAN 160 | - | - | | - | 172.16.160.2 | | - | | Yes |
| VLAN 170 | - | - | | - | 172.16.170.2 | | - | | Yes |

**L3 Switch 2 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | | | Location | | | IOS | | VTP (V2) | |
| HQ\_DS\_sw\_2 | | 3650-24PS | Secondary L3 Switch | | | Cairo Branch | | | Cisco IOS Software [Denali], Catalyst L3 Switch Software (CAT3K\_CAA-UNIVERSALK9-M), Version 16.3.2, RELEASE SOFTWARE (fc4) | | Domain:  Cisco.com  Password:  Cisco | |
| Port | Description | | | Access | VLAN | | Trunk | IPv4 Address | | Native | | Enabled |
| G 1/0/1 - 4 | Connected to HQ\_DS\_sw\_1  (Channel-group 10) (PAgP) | | | - | - | | - | Unassigned | | - | | Yes |
| G 1/0/5 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/6 - 10 | Connected to VLANs  (50 - 10) | | | - | - | | Yes | 99 | | Yes |
| G 1/0/11 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/12 | Connected to  HQ\_R\_2 | | | - | - | | - | 172.16.1.13  /30 | | - | | Yes |
| G 1/0/14 - 15 | Connected to Data Center Building  (Channel-group 25) (LACP) | | | - | 200 | | - | Unassigned | | - | | Shut |
| G 1/0/16 - 24 | - | | | Yes | 200 | | - | 100 | | Yes |
| G 1/1/1 - 4 | - | | | Yes | 200 | | - | - | | Shut |
|  | | | | | | | | - | |  | | - |
| VLAN 10 | Connected to HQ\_DS\_sw\_1 & HQ\_DS\_sw\_2 | | | - | - | | - | 172.16.10.2 | | - | | Yes |
| VLAN 20 | - | - | | - | 172.16.20.2 | | - | | Yes |
| VLAN 30 | - | - | | - | 172.16.30.2 | | - | | Yes |
| VLAN 40 | - | - | | - | 172.16.40.2 | | - | | Yes |
| VLAN 50 | - | - | | - | 172.16.50.2 | | - | | Yes |
| VLAN 100 | - | - | | - | 172.16.100.2 | | - | | Yes |
| VLAN 150 | - | - | | - | 172.16.150.2 | | - | | Yes |
| VLAN 160 | - | - | | - | 172.16.160.2 | | - | | Yes |
| VLAN 170 | - | - | | - | 172.16.170.2 | | - | | Yes |

**1.3 L2 Switches**

**L2 Switch 1 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | | Description | Mgmt\_IP Address | | | IOS | | VTP |
| HQ\_Acc\_  sw\_1 | | Cisco Catalyst WS-C2960-24TC-L | | HQ- switch Floor\_1 | 172.16.100.21/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | Domain: cisco.com  Mode: Client |
| interface | Description | | MAC Address | | | Access | VLAN | Trunk | Enable | Native |
| Fa 0/1 | Connects to  AP0\_1 | | 0090.2157.8726 | | | - | - | Yes | Up | 99 |
| Fa 0/2 | Connects to  HQ\_PC-1 | | 000c.cfd4.026a | | | Yes | 10 | - | Up | N/A |
| Fa 0/3 | Connects to  Printer0\_1 | | 0002.163e.509c | | | Yes | 170 | - | Up | N/A |
| G 0/1 | Connects to  HQ\_DS\_sw\_1 | | 0009.7c29.a47a | | | - | - | Yes | Up | 99 |
| G 0/2 | Connects to HQ\_DS\_sw\_2 | | 0002.4a38.9b25 | | | - | - | Yes | Up | 99 |
| VLAN 100 | Management  Interface | | 0040.0bd7.c101 | | | - | 100 | - | Up | N/A |
| Fa 0/4-24 | Unused | | N/A | | | - | 200 | - | Down | - |

**L2 Switch 2 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | Model | Description | | Mgmt\_IP Address | | | IOS | | | VTP | |
| HQ\_Acc\_sw\_2 | Cisco Catalyst WS-C2960-24TC-L | HQ\_switch\_Floor\_2 | | 172.16.100.22/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode:  Client | |
| interface | Description | | MAC Address | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to AP\_2 | | 00e0.b0ad.a13d | | - | - | | Yes | Up | | 99 |
| Fa 0/2 | Connects to HQ\_PC-2 | | 00d0.d3b8.47ac | | Yes | 20 | | - | Up | | N/A |
| Fa 0/3 | Connects to Printer\_2 | | 0010.117b.eb57 | | Yes | 170 | | --- | Up | | N/A |
| G 0/1 | Connects to HQ\_DS\_sw\_1 | | 0060.5ce2.337e | | - | - | | Yes | Up | | 99 |
| G 0/2 | Connects to HQ\_DS\_sw\_2 | | 000d.bd29.1355 | | - | - | | Yes | Up | | 99 |
| VLAN 100 | Management Interface | | 00d0.ffa1.2101 | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | | N/A | | - | 200 | | - | Down | | - |

**L2 Switch 3 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | Model | | Description | Mgmt\_IP Address | | | IOS | | | VTP | | |
| HQ\_Acc\_sw\_3 | Cisco Catalyst WS-C2960-24TC-L | | HQ\_switch\_Floor\_3 | 172.16.100.23/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | | Domain: cisco.com  Mode:  Client | |
| interface | Description | MAC Address | | | Access | VLAN | | Trunk | Enable | | | Native |
| Fa 0/1 | Connects to AP\_3 | 0001.c9ed.5a21 | | | - | - | | Yes | Up | | | 99 |
| Fa 0/2 | Connects to HQ\_PC-3 | 0010.11ba.e394 | | | Yes | 30 | | - | Up | | | N/A |
| Fa 0/3 | Connects to Printer\_3 | 0001.c774.5810 | | | Yes | 170 | | - | Up | | | N/A |
| G 0/1 | Connects to HQ\_DS\_sw\_1 | 00d0.bc36.2a12 | | | - | - | | Yes | Up | | | 99 |
| G 0/2 | Connects to HQ\_DS\_sw\_2 | 00e0.f9b4.4d28 | | | - | - | | Yes | Up | | | 99 |
| VLAN 100 | Management Interface | 0007.ec7a.7201 | | | - | 100 | | - | Up | | | N/A |
| Fa 0/4-24 | Unused | N/A | | | - | 200 | | - | Down | | | - |

**L2 Switch 4 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | | Description | Mgmt\_IP Address | | | IOS | | | VTP | |
| HQ\_Acc\_sw\_4 | | Cisco Catalyst WS-C2960-24TC-L | | HQ- switch Floor\_4 | 172.16.100.24/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode: Client | |
| interface | Description | | MAC Address | | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to  AP\_4 | | 00d0.58a2.42bb | | | - | - | | Yes | Up | | 99 |
| Fa 0/2 | Connects to  HQ\_PC-4 | | 0060.701d.4117 | | | Yes | 40 | | - | Up | | N/A |
| Fa 0/3 | Connects to  Printer\_4 | | 0001.43ac.8453 | | | Yes | 170 | | - | Up | | N/A |
| G 0/1 | Connects to  HQ\_DS\_sw\_1 | | 00e0.f9eb.c213 | | | - | - | | Yes | Up | | 99 |
| G 0/2 | Connects to HQ\_DS\_sw\_2 | | 0030.a3ee.d7d4 | | | - | - | | Yes | Up | | 99 |
| VLAN 100 | Management  Interface | | 0006.2a4a.d801 | | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | | N/A | | | - | 200 | | - | Down | | - |

**L2 Switch 5 (Head Quarter)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | Model | | Description | Mgmt\_IP Address | | | IOS | | | VTP | |
| HQ\_Acc\_sw\_5 | Cisco Catalyst WS-C2960-24TC-L | | HQ\_switch\_Floor\_5 | 172.16.100.25/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode:  Client | |
| interface | Description | MAC Address | | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to AP\_5 | 00e0.f992.6c08 | | | - | - | | Yes | Up | | 99 |
| Fa 0/2 | Connects to Br\_PC-5 | 0001.c901.5ce9 | | | Yes | 50 | | - | Up | | N/A |
| Fa 0/3 | Connects to Printer\_5 | 0090.0c2c.ad63 | | | Yes | 170 | | - | Up | | N/A |
| G 0/1 | Connects to HQ\_DS\_sw\_1 | 0002.1619.7ecb | | | - | - | | Yes | Up | | 99 |
| G 0/2 | Connects to HQ\_DS\_sw\_2 | 000a.41dd.8d70 | | | - | - | | Yes | Up | | 99 |
| VLAN 100 | Management Interface | 0060.70d8.a701 | | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | N/A | | | - | 200 | | - | Down | | - |

**Paris\_DS\_sw-1**

|  |  |
| --- | --- |
| * **Host name**   **hostname Paris\_DS\_sw\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network!**  **\*\***  **\*\* Track: Cisco Network Administrator**  **\*\* Group Code: SHR1\_ISS2\_M1e**  **\*\***  **\*\* Authorized Personnel Only.**  **\*\* Access is Monitored and Logged.**  **\*\***  **\*\* Team Members:**  **\*\* - Ibrahim Mohammed**  **\*\* - Ahmed Sabry**  **\*\* - Shady Hossam**  **\*\* - Mohamed Nabawy**  **\*\* - Mohamed Elsayed**  **\*\* Special Thanks to Our Respected Instructor:**  **\*\* - Sameh Elshamy**  **\*\* Have a Great Day!**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Trunk, Native Interfaces**   **int range g1/0/5-11**  **no sh**  **switchport mode trunk**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**  **int g1/0/12**  **no switchport**  **ip add 172.17.1.5 255.255.255.252**  **interface GigabitEthernet1/0/20**  **switchport access vlan 200**  **switchport trunk native vlan 100**  **switchport mode trunk**   * **IVLAV , HSRP , Helper-address**   **int vlan 10**  **description Default Gateway SVI for PR Team**  **ip add 172.17.10.2 255.255.255.0**  **standby 10 ip 172.17.10.1**  **standby 10 priority 200**  **standby 10 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 20**  **description Default Gateway SVI for C & S Team**  **ip add 172.17.20.2 255.255.255.0**  **standby 20 ip 172.17.20.1**  **standby 20 priority 200**  **standby 20 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 30**  **description Default Gateway SVI for SE Team**  **ip add 172.17.30.2 255.255.255.0**  **standby 30 ip 172.17.30.1**  **standby 30 priority 200**  **standby 30 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 100**  **description Default Gateway SVI for Management Team**  **ip add 172.17.100.2 255.255.255.0**  **standby 100 ip 172.17.100.1**  **standby 100 priority 200**  **standby 100 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 40**  **description Default Gateway SVI for IT Team**  **ip add 172.17.40.2 255.255.255.0**  **standby 40 ip 172.17.40.1**  **standby 40 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 50**  **description Default Gateway SVI for HR Team**  **ip add 172.17.50.2 255.255.255.0**  **standby 50 ip 172.17.50.1**  **standby 50 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 60**  **description Default Gateway SVI for R & D Team**  **ip add 172.17.60.2 255.255.255.0**  **standby 40 ip 172.17.60.1**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **DHCP**   **ip dhcp pool HR**  **network 172.17.10.0 255.255.255.0**  **default-router 172.17.10.1**  **dns-server 172.17.5.18**  **ip dhcp pool Sales**  **network 172.17.20.0 255.255.255.0**  **default-router 172.17.20.1**  **dns-server 172.17.5.18**  **ip dhcp pool IT**  **network 172.17.30.0 255.255.255.0**  **default-router 172.17.30.1**  **dns-server 172.17.5.18**  **ip dhcp pool CEO**  **network 172.17.40.0 255.255.255.0**  **default-router 172.17.40.1**  **dns-server 172.17.5.18**  **ip dhcp pool Finance**  **network 172.17.50.0 255.255.255.0**  **default-router 172.17.50.1**  **dns-server 172.17.5.18**  **ip dhcp pool MGMT**  **network 172.17.100.0 255.255.255.0**  **default-router 172.17.100.1**  **dns-server 172.17.5.18**  **ip dhcp pool Voip**  **network 172.17.150.0 255.255.255.0**  **default-router 172.17.150.1**  **dns-server 172.17.5.18**  **ip dhcp pool Wlan**  **network 172.17.170.0 255.255.255.0**  **default-router 172.17.160.1** | * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode server**  **vtp password cisco**  **vlan 10**  **name PR**  **vlan 20**  **name C & S**  **vlan 30**  **name SE**  **vlan 40**  **name IT**  **vlan 50**  **name HR**  **vlan 60**  **name R & D**  **vlan 100**  **name MGMT**  **vlan 150**  **name VIOP**  **vlan 170**  **name Wlan**  **vlan 170**  **name Printer**  **vlan 99**  **name Native**  **vlan 200**  **name Unused**   * **STP**   **spanning tree mode pvst**  **spanning tree vlan 10,20,30,40,100 root primary**  **spanning tree vlan 50,60,150,170,170 root secondary**   * **Ether-channel**   **int range g2/0/1-4**  **no switchport**  **channel-group 1 mode active**  **no sh**  **int port-channel 1**  **ip add 172.17.1.1 255.255.255.252**  **switchport trunk native vlan 99**  **no sh**   * **Unused Interfaces**   **int range g1/0/12-19,g1/0/21-24, g1/1/1-4**  **sh**  **switchport mode access**  **switchport access vlan 200**  **standby 60 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 150**  **description Default Gateway SVI for VIOP devices**  **ip add 172.17.150.2 255.255.255.0**  **standby 150 ip 172.17.150.1**  **standby 150 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 160**  **description Default Gateway SVI for Wlan devices**  **ip add 172.17.170.2 255.255.255.0**  **standby 170 ip 172.17.170.1**  **standby 170 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 170**  **description Default Gateway SVI for Printer devices**  **ip add 172.17.170.2 255.255.255.0**  **standby 170 ip 172.17.170.1**  **standby 170 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **dns-server 172.17.5.18**  **ip dhcp pool Printer**  **network 172.17.170.0 255.255.255.0**  **default-router 172.17.170.1**  **dns-server 172.17.5.18**  **ip dhcp excluded-address 172.17.10.1 172.17.10.49**  **ip dhcp excluded-address 172.17.10.125 172.17.10.255**  **ip dhcp excluded-address 172.17.20.1 172.17.20.49**  **ip dhcp excluded-address 172.17.20.125 172.17.20.255**  **ip dhcp excluded-address 172.17.30.1 172.17.30.49**  **ip dhcp excluded-address 172.17.30.125 172.17.30.255**  **ip dhcp excluded-address 172.17.40.1 172.17.40.49**  **ip dhcp excluded-address 172.17.40.125 172.17.40.255**  **ip dhcp excluded-address 172.17.50.1 172.17.50.49**  **ip dhcp excluded-address 172.17.50.125 172.17.50.255**  **ip dhcp excluded-address 172.17.100.1 172.17.100.49**  **ip dhcp excluded-address 172.17.100.125 172.17.100.255**  **ip dhcp excluded-address 172.17.150.1 172.17.150.49**  **ip dhcp excluded-address 172.17.150.125 172.17.150.255**  **ip dhcp excluded-address 172.17.170.1 172.17.160.49**  **ip dhcp excluded-address 172.17.170.125 172.17.170.255**  **ip dhcp excluded-address 172.17.170.1 172.17.170.49**  **ip dhcp excluded-address 172.17.170.125 172.17.170.255** |

**Paris\_DS\_sw\_2**

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| * **Host name**   **hostname Paris\_DS\_sw\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network!**  **\*\* Track: Cisco Network Administrator**  **\*\* Group Code: SHR1\_ISS2\_M1e**  **\*\* Authorized Personnel Only.**  **\*\* Access is Monitored and Logged.**  **\*\* Team Members:**  **\*\* - Ibrahim Mohammed**  **\*\* - Ahmed Sabry**  **\*\* - Shady Hossam**  **\*\* - Mohamed Nabawy**  **\*\* - Mohamed Elsayed**  **\*\* Special Thanks to Our Respected Instructor:**  **\*\* - Sameh Elshamy**  **\*\* Have a Great Day!**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **-Trunk Interfaces**   **int range g1/0/5-11**  **no sh**  **switchport mode trunk**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**  **int g1/0/12**  **no switchport**  **ip add 172.17.1.13 255.255.255.252**   * **Unused Interfaces**   **int range g1/0/12-24, g1/1/1-4**  **sh**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning tree mode pvst**  **spanning tree vlan 50,60,150,170,170 root primary**  **spanning tree vlan 10,20,30,40,100 root secondary**   * **IVLAV , HSRP , Helper-address**   **int vlan 10**  **description Default Gateway SVI for PR Team**  **ip add 172.17.10.3 255.255.255.0**  **standby 10 ip 172.17.10.1**  **standby 10 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 20**  **description Default Gateway SVI for C & S Team**  **ip add 172.17.20.3 255.255.255.0**  **standby 20 ip 172.17.20.1**  **standby 20 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 30**  **description Default Gateway SVI for SE Team**  **ip add 172.17.30.3 255.255.255.0**  **standby 30 ip 172.17.30.1**  **standby 30 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 100**  **description Default Gateway SVI for Management Team**  **ip add 172.17.100.3 255.255.255.0**  **standby 100 ip 172.17.100.1**  **standby 100 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 40**  **description Default Gateway SVI for IT Team**  **ip add 172.17.40.3 255.255.255.0**  **standby 40 ip 172.17.40.1**  **standby 40 priority 200**  **standby 40 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 50**  **description Default Gateway SVI for HR Team**  **ip add 172.17.50.3 255.255.255.0**  **standby 50 ip 172.17.50.1**  **standby 50 priority 200**  **standby 50 preempt**  **ip helper-address 172.17.1.19**  **no sh**   * **OSPF , Static Routing**   **ip routing**  **router ospf 10**  **router-id 2.2.2.2**  **passive-interface GigabitEthernet1/0/6**  **passive-interface GigabitEthernet1/0/7**  **passive-interface GigabitEthernet1/0/8**  **passive-interface GigabitEthernet1/0/9**  **passive-interface GigabitEthernet1/0/10**  **passive-interface GigabitEthernet1/0/20**  **network 172.17.1.0 0.0.0.3 area 1**  **network 172.17.10.0 0.0.0.255 area 1**  **network 172.17.20.0 0.0.0.255 area 1**  **network 172.17.30.0 0.0.0.255 area 1**  **network 172.17.40.0 0.0.0.255 area 1**  **network 172.17.50.0 0.0.0.255 area 1**  **network 172.17.100.0 0.0.0.255 area 1**  **network 172.17.150.0 0.0.0.255 area 1**  **network 172.17.160.0 0.0.0.255 area 1**  **network 172.17.1.12 0.0.0.3 area 1**  **network 172.17.1.28 0.0.0.3 area 1**  **network 172.17.170.0 0.0.0.255 area 1**  **ip route 172.17.5.34 255.255.255.255 172.17.5.30**  **ip route 172.17.5.35 255.255.255.255 172.17.5.30**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35** | * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode server**  **vtp password cisco**  **vlan 10**  **name PR**  **vlan 20**  **name C & S**  **vlan 30**  **name SE**  **vlan 40**  **name IT**  **vlan 50**  **name HR**  **vlan 60**  **name R & D**  **vlan 100**  **name MGMT**  **vlan 150**  **name VIOP**  **vlan 160**  **name Wlan**  **vlan 170**  **name Printer**  **vlan 99**  **name Native**  **vlan 200**   * **Ether-channel**   **int port-channel 1**  **ip add 172.17.1.2 255.255.255.252**  **no sh**  **int range g1/0/2-4**  **no switchport**  **channel-group 1 mode desirable**  **no sh**  **int vlan 60**  **description Default Gateway SVI for R & D Team**  **ip add 172.17.50.3 255.255.255.0**  **standby 50 ip 172.17.50.1**  **standby 50 priority 200**  **standby 50 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 150**  **description Default Gateway SVI for VIOP devices**  **ip add 172.17.150.3 255.255.255.0**  **standby 150 ip 172.17.150.1**  **standby 150 priority 200**  **standby 150 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 160**  **description Default Gateway SVI for Wlan devices**  **ip add 172.17.170.3 255.255.255.0**  **standby 170 ip 172.17.170.1**  **standby 170 priority 200**  **standby 170 preempt**  **ip helper-address 172.17.1.19**  **no sh**  **int vlan 170**  **description Default Gateway SVI for Printer devices**  **ip add 172.17.170.3 255.255.255.0**  **standby 170 ip 172.17.170.1**  **standby 170 priority 200**  **standby 170 preempt**  **ip helper-address 172.17.1.19**  **no sh**   * **DHCP**   **ip dhcp pool HR**  **network 172.17.10.0 255.255.255.0**  **default-router 172.17.10.1**  **dns-server 172.17.5.18**  **ip dhcp pool Sales**  **network 172.17.20.0 255.255.255.0**  **default-router 172.17.20.1**  **dns-server 172.17.5.18**  **ip dhcp pool IT**  **network 172.17.30.0 255.255.255.0**  **default-router 172.17.30.1**  **dns-server 172.17.5.18**  **ip dhcp pool CEO**  **network 172.17.40.0 255.255.255.0**  **default-router 172.17.40.1**  **dns-server 172.17.5.18**  **ip dhcp pool Finance**  **network 172.17.50.0 255.255.255.0**  **default-router 172.17.50.1**  **dns-server 172.17.5.18**  **ip dhcp pool MGMT**  **network 172.17.100.0 255.255.255.0**  **default-router 172.17.100.1**  **dns-server 172.17.5.18**  **ip dhcp pool Voip**  **network 172.17.150.0 255.255.255.0**  **default-router 172.17.150.1**  **dns-server 172.17.5.18**  **ip dhcp pool Wlan**  **network 172.17.170.0 255.255.255.0**  **default-router 172.17.160.1**  **dns-server 172.17.5.18**  **ip dhcp pool Printer**  **network 172.17.170.0 255.255.255.0**  **default-router 172.17.170.1**  **dns-server 172.17.5.18**  **ip dhcp excluded-address 172.17.10.1 172.17.10.124**  **ip dhcp excluded-address 172.17.10.200 172.17.10.255**  **ip dhcp excluded-address 172.17.20.1 172.17.20.124**  **ip dhcp excluded-address 172.17.20.200 172.17.20.255**  **ip dhcp excluded-address 172.17.30.1 172.17.30.124**  **ip dhcp excluded-address 172.17.30.200 172.17.30.255**  **ip dhcp excluded-address 172.17.40.1 172.17.40.124**  **ip dhcp excluded-address 172.17.40.200 172.17.40.255**  **ip dhcp excluded-address 172.17.50.1 172.17.50.124**  **ip dhcp excluded-address 172.17.50.200 172.17.50.255**  **ip dhcp excluded-address 172.17.100.1 172.17.100.124**  **ip dhcp excluded-address 172.17.100.200 172.17.100.255**  **ip dhcp excluded-address 172.17.150.1 172.17.150.124**  **ip dhcp excluded-address 172.17.150.200 172.17.150.255**  **ip dhcp excluded-address 172.17.170.1 172.17.160.124**  **ip dhcp excluded-address 172.17.170.200 172.17.170.255**  **ip dhcp excluded-address 172.17.170.1 172.17.170.124**  **ip dhcp excluded-address 172.17.170.200 172.17.170.255** |

**Paris\_R\_1**

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| * **Host name**   **hostname Paris\_R\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **Line console**   **line con 0**  **login authentication AAA**   * **Line VTY (ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **access-class VTY in**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **transport input ssh**   * **STP**   **spanning-tree mode pvst**   * **IP , NAT**   **int GigabitEthernet0/0**  **no sh**  **ip add 172.17.1.6 255.255.255.252**  **ip nat inside**  **int GigabitEthernet0/1**  **no sh**  **ip address 172.17.2.21 255.255.255.252**  **ip nat inside**  **interface GigabitEthernet0/1/0**  **ip address dhcp**  **ip nat outside**  **ip nat inside source list 120 interface GigabitEthernet0/1/0 overload** | * **OSPF , Static Routing**   **router ospf 10**  **router-id 6.6.6.6**  **network 172.17.2.20 0.0.0.3 area 1**  **network 172.17.1.4 0.0.0.3 area 1**  **network 209.1.34.0 0.0.0.255 area 1**  **default-information originate**  **ip route 0.0.0.0 0.0.0.0 209.1.34.1**  **ip route 209.1.12.0 255.255.255.0 209.1.34.1**  **ip route 172.17.0.0 255.255.0.0 5.0.0.2**   * **VPN**   **interface Tunnel1**  **ip address 5.0.0.2 255.255.255.252**  **mtu 1476**  **tunnel source GigabitEthernet0/1/0**  **tunnel destination 209.1.34.8**   * **ACL**   **access-list 1 permit 172.17.0.0 0.0.255.255**  **ip access-list extended VTY**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.40.0 0.0.0.255 any**  **permit ip 172.17.20.0 0.0.0.255 any**  **deny tcp any any**   * **FTP Service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP Service**   **ntp server 172.17.5.35**   * **Syslog Service**   **logging 172.17.5.35** |

**Paris\_R\_2**

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| * **Host name**   **hostname Paris\_R\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **Line console**   **line con 0**  **login authentication AAA**   * **Line VTY (ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **access-class VTY in**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **transport input ssh**   * **STP**   **spanning-tree mode pvst**   * **IP , NAT**   **int GigabitEthernet0/0**  **no sh**  **ip address 172.17.1.14 255.255.255.252**  **ip nat inside**  **int GigabitEthernet0/1**  **no sh**  **ip address 172.17.2.22 255.255.255.252**  **ip nat inside**  **interface GigabitEthernet0/1/0**  **interface GigabitEthernet0/1/0**  **ip address dhcp**  **ip nat outside**  **ip nat inside source list 1 interface GigabitEthernet0/1/0 overload** | * **OSPF , Static Routing**   **router ospf 10**  **router-id 5.5.5.5**  **network 172.17.2.20 0.0.0.3 area 0**  **network 172.17.1.12 0.0.0.3 area 0**  **network 209.1.33.0 0.0.0.255 area 0**  **default-information originate**  **ip route 0.0.0.0 0.0.0.0 209.1.33.1**  **ip route 209.1.22.0 255.255.255.0 209.1.33.1**  **ip route 172.17.0.0 255.255.0.0 5.0.0.6**   * **VPN**   **interface Tunnel1**  **ip address 5.0.0.6 255.255.255.252**  **mtu 1476**  **tunnel source GigabitEthernet0/1/0**  **tunnel destination 209.1.33.8**   * **ACL**   **a ip access-list extended VTY**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.30.0 0.0.0.255 any**  **permit ip 172.17.40.0 0.0.0.255 any**  **permit ip 172.17.20.0 0.0.0.255 any**  **deny tcp any any**    **access-list 1 permit 172.17.0.0 0.0.255.255**   * **FTP Service**   **ip ftp username devices**  **ip ftp password cisco**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP Service**   **ntp server 172.17.5.35**   * **Syslog Service**   **logging 172.17.5.35** |

**Paris\_Acc\_sw\_1**

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| **Host name**  **hostname Paris\_Acc\_sw\_1**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.21 255.255.255.0**  **ip default-gateway 172.17.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**PARIS\_Acc\_sw\_2**

|  |  |
| --- | --- |
| * **Host name**   **hostname PARIS\_Acc\_sw\_2**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.22 255.255.255.0**  **ip default-gateway 172.17.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**PARIS\_Acc\_sw\_3**

|  |  |
| --- | --- |
| * **Host name**   **hostname PARIS\_Acc\_sw\_3**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **Unused Interfaces**   **int range FastEthernet0/6-9 , FastEthernet0/11-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-5 , FastEthernet0/10**  **spanning-tree portfast**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.23 255.255.255.0**  **ip default-gateway 172.17.100.1**  **spanning-tree bpduguard enable**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** | **spanning-tree bpduguard**   * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/4**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/5**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **interface FastEthernet0/10**  **switchport access vlan 30**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast** |

**PARIS\_Acc\_sw\_4**

|  |  |
| --- | --- |
| * **Host name**   **hostname PARIS\_Acc\_sw\_4**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.24 255.255.255.0**  **ip default-gateway 172.17.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**PARIS\_Acc\_sw\_5**

|  |  |
| --- | --- |
| * **Host name**   **hostname PARIS\_Acc\_sw\_5**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.25 255.255.255.0**  **ip default-gateway 172.17.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**PARIS\_Acc\_sw\_6**

|  |  |
| --- | --- |
| * **Host name**   **hostname PARIS\_Acc\_sw\_6**   * **Banner motd**   **banner motd $**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **\*\* Welcome to the Full Secure Campus Network! \*\***  **\*\* Track: Cisco Network Administrator \*\***  **\*\* Group Code: SHR1\_ISS2\_M1e \*\***  **\*\* Authorized Personnel Only. \*\***  **\*\* Access is Monitored and Logged. \*\***  **\*\* Team Members: \*\***  **\*\* - Ibrahim Mohammed \*\***  **\*\* - Ahmed Sabry \*\***  **\*\* - Shady Hossam \*\***  **\*\* - Mohamed Nabawy \*\***  **\*\* - Mohamed Elsayed \*\***  **\*\* Special Thanks to Our Respected Instructor: \*\***  **\*\* - Sameh Elshamy \*\***  **\*\* Have a Great Day! \*\***  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **$**   * **line console**   **line con 0**  **login authentication AAA**   * **Line console(ssh)**   **crypto key generate rsa general-key modulus 1024**  **ip ssh version 2**  **line vty 0 4**  **login authentication AAA**  **transport input ssh**  **line vty 5 10**  **login authentication AAA**  **transport input ssh**   * **Unused Interfaces**   **int range FastEthernet0/4-24**  **shutdown**  **switchport mode access**  **switchport access vlan 200**   * **STP**   **spanning-tree mode pvst**  **int range FastEthernet0/1-3**  **spanning-tree portfast**  **spanning-tree bpduguard**   * **MGMT Interface**   **interface Vlan100**  **description Default Gateway SVI for Management Team**  **ip address 172.17.100.25 255.255.255.0**  **ip default-gateway 172.17.100.1**   * **VTP**   **vtp version 2**  **vtp domain cisco.com**  **vtp mode client**  **vtp password cisco** | * **L2 Security**   **int FastEthernet0/1**  **switchport mode atrunk**  **switchport trunk native vlan 100**  **spanning-tree portfast**  **interface FastEthernet0/2**  **switchport access vlan 10**  **switchport mode access**  **switchport nonegotiate**  **switchport voice vlan 150**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**  **mls qos trust cos**  **mls qos trust device cisco-phone**  **interface FastEthernet0/3**  **switchport access vlan 170**  **switchport mode access**  **switchport nonegotiate**  **switchport port-security maximum 2**  **switchport port-security mac-address sticky**  **spanning-tree portfast**  **spanning-tree bpduguard enable**   * **Trunk , Native Interfaces**   **int range GigabitEthernet0/1-2**  **no shutdown**  **switchport mode trunk**  **switchport nonegotiate**  **switchport trunk native vlan 99**  **switchport trunk allowed vlan all**   * **AAA Service**   **aaa authentication login AAA group radius**  **radius server RADIUS**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**  **radius server 172.17.5.34**  **address ipv4 172.17.5.34 auth-port 1745**  **key Cisco123**   * **NTP service**   **ntp server 172.17.5.35**   * **Syslog service**   **logging 172.17.5.35**   * **FTP service**   **ip ftp username devices**  **ip ftp password cisco** |

**Paris Branch Data Sheets**

* 1. **Routers**

**Router 1 (Paris Branch)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Device | Model | Description | Location | IOS |
| Br\_R\_1 | ISR 2911 | Primary Edge Router | Paris Branch | Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc2) |
| Interface | Description | IPv4 Address | MAC Address | Routing |
| Port-channel20 | Port-channel | 172.17.1.21/30 | 00e0.8fd7.d28c | N/A |
| GigabitEthernet0/0 | Connected to Br\_DR\_sw\_1 | 172.17.1.6/30 | 0030.f29a.0901 | OSPF |
| GigabitEthernet0/1 | Channel group 20 | Unassigned | 0030.f29a.0902 | N/A |
| GigabitEthernet0/2 | 0030.f29a.0903 |
| GigabitEthernet0/1/0 | Connected to ISP (WE) | 209.1.12.8/24 | 000a.f36d.2385 | N/A |
| Tunnel1 | Connected to HQ\_R\_1 | 5.0.0.2/30 | N/A | N/A |

**Router 2 (Paris Branch)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Device | Model | Description | Location | IOS |
| Br\_R\_2 | ISR 2911 | Secondary Edge Router | Paris Branch | Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc2) |
| Interface | Description | IPv4 Address | MAC Address | Routing |
| Port-channel20 | Port-channel | 172.17.1.22/30 | 0030.a3d3.1e1a | N/A |
| GigabitEthernet0/0 | Connected to Br\_DS\_sw\_2 | 172.17.1.14/30 | 0090.2b30.9701 | OSPF |
| GigabitEthernet0/1 | Channel group 20 | Unassigned | 0090.2b30.9702 | N/A |
| GigabitEthernet0/2 | 0090.2b30.9703 |
| GigabitEthernet0/1/0 | Connected to ISP (Vodafone) | 209.1.22.8/24 | 0090.0c43.6291 | N/A |
| Tunnel1 | Connected to HQ\_R\_2 | 5.0.0.6/30 | N/A | N/A |

* 1. **L3 Switches**

**L3 Switch 1 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | | | Location | | | IOS | | VTP (V2) | |
| Br\_DS\_sw\_1 | | 3650-24PS | Primary L3 Switch | | | Paris Branch | | | Cisco IOS Software [Denali], Catalyst L3 Switch Software (CAT3K\_CAA-UNIVERSALK9-M), Version 16.3.2, RELEASE SOFTWARE (fc4) | | Domain:  Cisco.com  Password:  Cisco | |
| Port | Description | | | Access | VLAN | | Trunk | IPv4 Address | | Native | | Enabled |
| G 1/0/1 - 4 | Connected to Br\_DS\_sw\_2  (Channel-group 1) (Pagp) | | | - | - | | - | Unassigned | | - | | Yes |
| G 1/0/5 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/6 - 11 | Connected VLANs (60 - 10) | | | - | - | | Yes | 99 | | Yes |
| G 1/0/12 | Connected to Br\_R\_2 | | | - | - | | - | 172.17.1.5  /30 | | - | | Yes |
| G 1/0/14 - 19 | - | | | Yes | 200 | | - | Unassigned | | - | | Shut |
| G 1/0/20 | Connected to Br\_WLC | | | - | 200 | | Yes | 100 | | Yes |
| G 1/0/21 - 24 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/1/1 - 4 | - | | | Yes | 200 | | - | - | | Shut |
|  | | | | | | | | - | |  | | - |
| VLAN 10 | Connected to Br\_DS\_sw\_1 & Br\_DS\_sw\_2 | | | - | - | | - | 172.17.10.2 | | - | | Yes |
| VLAN 20 | - | - | | - | 172.17.20.2 | | - | | Yes |
| VLAN 30 | - | - | | - | 172.17.30.2 | | - | | Yes |
| VLAN 40 | - | - | | - | 172.17.40.2 | | - | | Yes |
| VLAN 50 | - | - | | - | 172.17.50.2 | | - | | Yes |
| VLAN 60 | - | - | | - | 172.17.60.2 | | - | | Yes |
| VLAN 100 | - | - | | - | 172.17.100.2 | | - | | Yes |
| VLAN 150 | - | - | | - | 172.17.150.2 | | - | | Yes |
| VLAN 160 | - | - | | - | 172.17.160.2 | | - | | Yes |
| VLAN 170 | - | - | | - | 172.17.170.2 | |  | | Yes |

**L3 Switch 2 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | | | Location | | | IOS | | VTP (V2) | |
| Br\_DS\_sw\_2 | | 3650-24PS | Secondary L3 Switch | | | Paris Branch | | | Cisco IOS Software [Denali], Catalyst L3 Switch Software (CAT3K\_CAA-UNIVERSALK9-M), Version 16.3.2, RELEASE SOFTWARE (fc4) | | Domain:  Cisco.com  Password:  Cisco | |
| Port | Description | | | Access | VLAN | | Trunk | IPv4 Address | | Native | | Enabled |
| G 1/0/1 - 4 | Connected to Br\_DS\_sw\_1  (Channel-group 1) (PAgP) | | | - | - | | - | Unassigned | | - | | Yes |
| G 1/0/5 | - | | | Yes | 200 | | - | - | | Shut |
| G 1/0/6 - 11 | Connected to VLANs  (60 - 10) | | | - | - | | Yes | 99 | | Yes |
| G 1/0/12 | Connected to  Br\_R\_2 | | | - | - | | - | 172.17.1.13  /30 | | - | | Yes |
| G 1/0/14 - 15 | - | | | - | 200 | | - | Unassigned | | - | | Shut |
| G 1/0/16 - 24 | - | | | Yes | 200 | | - | 100 | | Yes |
| G 1/1/1 - 4 | - | | | Yes | 200 | | - | - | | Shut |
|  | | | | | | | | - | |  | | - |
| VLAN 10 | Connected to Br\_DS\_sw\_1 & Br\_DS\_sw\_2 | | | - | - | | - | 172.17.10.2 | | - | | Yes |
| VLAN 20 | - | - | | - | 172.17.20.2 | | - | | Yes |
| VLAN 30 | - | - | | - | 172.17.30.2 | | - | | Yes |
| VLAN 40 | - | - | | - | 172.17.40.2 | | - | | Yes |
| VLAN 50 | - | - | | - | 172.17.50.2 | | - | | Yes |
| VLAN 100 | - | - | | - | 172.17.100.2 | | - | | Yes |
| VLAN 150 | - | - | | - | 172.17.150.2 | | - | | Yes |
| VLAN 160 | - | - | | - | 172.17.160.2 | | - | | Yes |
| VLAN 170 | - | - | | - | 172.17.170.2 | | - | | Yes |

* 1. **L2 Switches**

**L2 Switch 1 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | | Description | Mgmt\_IP Address | | | IOS | | | VTP | |
| Br\_Acc\_sw\_1 | | Cisco Catalyst WS-C2960-24TC-L | | Branch\_switch\_Floor\_1 | 172.17.100.21/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode: Client | |
| interface | Description | | MAC Address | | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to  AP0\_1 | | 0002.4a67.8201 | | | - | - | | Yes | Up | | N/A |
| Fa 0/2 | Connects to  Br\_PC-1 | | 0002.4a67.8202 | | | Yes | 10 | | - | Up | | N/A |
| Fa 0/3 | Connects to  Printer0\_1 | | 0002.4a67.8203 | | | Yes | 170 | | - | Up | | N/A |
| G 0/1 | Connects to  Br\_DS\_sw\_1 | | 0002.4a67.8219 | | | - | - | | Yes | Up | | N/A |
| G 0/2 | Connects to Br\_DS\_sw\_2 | | 0002.4a67.821a | | | - | - | | Yes | Up | | N/A |
| VLAN 100 | Management  Interface | | 0060.4793.3601 | | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | | N/A | | | - | 200 | | - | Down | | - |

**L2 Switch 2 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | Mgmt\_IP Address | | IOS | | VTP | |
| Br\_Acc\_sw\_2 | | Cisco Catalyst WS-C2960-24TC-L | Branch\_switch\_Floor\_2 | 172.17.100.22/24 | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | Domain: cisco.com  Mode:  Client | |
| interface | Description | | MAC Address | Access | VLAN | Trunk | Enable | | Native |
| Fa 0/1 | Connects to AP0\_2 | | 0001.c9aa.b7c9 | - | - | Yes | Up | | 99 |
| Fa 0/2 | Connects to Br\_PC-2 | | 0001.63ab.5502 | Yes | 20 | - | Up | | N/A |
| Fa 0/3 | Connects to Printer0\_2 | | 0005.5ea5.b3ee | Yes | 170 | - | Up | | N/A |
| G 0/1 | Connects to Br\_DS\_sw\_1 | | 0050.0f98.ee12 | - | - | Yes | Up | | 99 |
| G 0/2 | Connects to Br\_DS\_sw\_2 | | 0060.4797.bbde | - | - | Yes | Up | | 99 |
| VLAN 100 | Management Interface | | 00d0.d343.5101 | - | 100 | - | Up | | N/A |
| Fa 0/4-24 | Unused | | N/A | - | 200 | - | Down | | - |

**L2 Switch 3 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | Model | Description | Mgmt\_IP Address | | IOS | | VTP | |
| Br\_Acc\_sw\_3 | Cisco Catalyst WS-C2960-24TC-L | Branch\_switch\_Floor\_3 | 172.17.100.23/24 | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | Domain: cisco.com  Mode:  Client | |
| interface | Description | MAC Address | Access | VLAN | Trunk | Enable | | Native |
| Fa 0/1 | Connects to AP0\_3 | 0009.7c6b.6580 | - | - | Yes | Up | | 99 |
| Fa 0/2 | Connects to Br\_PC-3 | 0001.965c.2a98 | Yes | 30 | - | Up | | N/A |
| Fa 0/3 | Connects to Printer0\_3 | 0004.9a76.bde8 | Yes | 170 | - | Up | | N/A |
| G 0/1 | Connects to Br\_DS\_sw\_1 | 0090.2b9b.6e14 | - | - | Yes | Up | | 99 |
| G 0/2 | Connects to Br\_DS\_sw\_2 | 0010.11b4.b885 | - | - | Yes | Up | | 99 |
| VLAN 100 | Management Interface | 0007.ec92.1801 | - | 100 | - | Up | | N/A |
| Fa 0/4-24 | Unused | N/A | - | 200 | - | Down | | - |

**L2 Switch 4 (Paris Branch)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Device | Model | Description | Mgmt\_IP Address | | IOS | | VTP |
| Br\_Acc\_sw\_4 | Cisco Catalyst WS-C2960-24TC-L | Branch- switch -Floor\_4 | 172.17.100.24/24 | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | Domain: cisco.com  Mode: Client |
| interface | Description | MAC Address | Access | VLAN | Trunk | Enable | Native |
| Fa 0/1 | Connects to  AP0\_4 | 000c.85e4.4b3c | - | - | Yes | Up | 99 |
| Fa 0/2 | Connects to  Br\_PC-4 | 000a.418d.95bb | Yes | 40 | - | Up | N/A |
| Fa 0/3 | Connects to  Printer0\_4 | 0001.c94b.c09e | Yes | 170 | - | Up | N/A |
| G 0/1 | Connects to  Br\_DS\_sw\_1 | 0001.64c0.e405 | - | - | Yes | Up | 99 |
| G 0/2 | Connects to Br\_DS\_sw\_2 | 0009.7c8b.e9e9 | - | - | Yes | Up | 99 |
| VLAN 100 | Management  Interface | 00e0.f7c3.da01 | - | 100 | - | Up | N/A |
| Fa 0/4-24 | Unused | N/A | - | 200 | - | Down | - |

**L2 Switch 5 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | Description | | Mgmt\_IP Address | | | IOS | | | VTP | |
| Br\_Acc\_sw\_5 | | Cisco Catalyst WS-C2960-24TC-L | Branch\_switch\_Floor\_5 | | 172.17.100.25/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode:  Client | |
| interface | Description | | | MAC Address | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to AP0\_5 | | | 00e0.f992.6c08 | | - | - | | Yes | Up | | 99 |
| Fa 0/2 | Connects to Br\_PC-5 | | | 0001.c901.5ce9 | | Yes | 50 | | - | Up | | N/A |
| Fa 0/3 | Connects to Printer0\_5 | | | 0090.0c2c.ad63 | | Yes | 170 | | - | Up | | N/A |
| G 0/1 | Connects to Br\_DS\_sw\_1 | | | 0002.1619.7ecb | | - | - | | Yes | Up | | 99 |
| G 0/2 | Connects to Br\_DS\_sw\_2 | | | 000a.41dd.8d70 | | - | - | | Yes | Up | | 99 |
| VLAN 100 | Management Interface | | | 0060.70d8.a701 | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | | | N/A | | - | 200 | | - | Down | | - |

**L2 Switch 6 (Paris Branch)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Device | | Model | | Description | Mgmt\_IP Address | | | IOS | | | VTP | |
| Br\_Acc\_sw\_6 | | Cisco Catalyst WS-C2960-24TC-L | | Branch\_switch\_Floor\_6 | 172.17.100.26/24 | | | Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4 | | | Domain: cisco.com  Mode: Client | |
| interface | Description | | MAC Address | | | Access | VLAN | | Trunk | Enable | | Native |
| Fa 0/1 | Connects to  AP0\_6 | | 0001.4223.93b0 | | | - | - | | Yes | Up | | 99 |
| Fa 0/2 | Connects to  Br\_PC-6 | | 0090.2b2c.6ab8 | | | Yes | 60 | | - | Up | | N/A |
| Fa 0/3 | Connects to  Printer0\_6 | | 0060.3ea6.4186 | | | Yes | 170 | | - | Up | | N/A |
| G 0/1 | Connects to  Br\_DS\_sw\_1 | | 0090.0c29.e3c8 | | | - | - | | Yes | Up | | 99 |
| G 0/2 | Connects to Br\_DS\_sw\_2 | | 00d0.9769.2441 | | | - | - | | Yes | Up | | 99 |
| VLAN 100 | Management  Interface | | 0040.0b10.4a01 | | | - | 100 | | - | Up | | N/A |
| Fa 0/4-24 | Unused | | N/A | | | - | 200 | | - | Down | | - |

**Conclusion**

This documentation outlines the comprehensive setup undertaken to interconnect the Cairo and Paris branches of our company. By implementing robust VLAN configurations, dual ISP connectivity, and secure VPN tunnels, we have established a reliable and secure network infrastructure. The collaborative efforts of the team members have ensured the successful completion of server configurations, network security implementations, and advanced network functionalities. This setup not only enhances communication and resource sharing between the branches but also ensures scalability and security for future expansions.