

1.Dispositivos

- Router
- Switch
- TI - PC0
- TI - PRINTER0
- TI- AC WiFi
- Financia - PC0
- Financia - PRINTER0
- Financia - AC WiFi
- Serviço - PC0
- Serviço - PRINTER0
- Serviço - AC WiFi
- Smartphone - TI
- Smartphone - Finance
- Smartphone - Service

2.Configurações de infraestrutura

- Departamento de Administração e TI
- Departamento de finanças e RH
- Departamento de Serviços e recepção
- Cada departamento deve operar em diferentes VLANs
- Cada departamento deve ter uma rede wireless para seus usuários
- Dispositivo host na rede deve obter endereço IPv4 automaticamente
- Dispositivos entre os departamentos devem se comunicar um com os outros

3.Configuração de rede

Endereço IP: 192.168.1.0

Número de sub-redes: 3

Máscara de sub-rede: 255.255.255.192

Tamanho de bloco: 64

1º Sub-rede → TI

Endereço de rede: 192.168.1.0

Endereço de broadcast: 192.168.1.63

Número de hosts para sub-rede: 192.168.1.1 - 192.168.1.62

2º Sub-rede → Finanças

Endereço de rede: 192.168.1.64

Endereço de broadcast: 192.168.1.127

Número de hosts para sub-rede: 192.168.1.65 - 192.168.1.126

3º Sub-rede → Serviços

Endereço de rede: 192.168.1.128

Endereço de broadcast: 192.168.1.191

Número de hosts para sub-rede: 192.168.1.129 - 192.168.1.190

4. Configuração de Switch

Switch> enable

Switch# configure terminal

4.1 Criação de VLANs

vlan 10

name IT

vlan 20

name Financeiro

vlan 30

name Services

4.2 TI → interface fa0/2, interface fa0/3 e interface fa0/4

interface range fa0/2-4

switchport mode access

switchport access vlan 10

4.3 FINANCEIRO → interface fa0/5, interface fa0/6 e interface fa0/7

interface range fa0/5-7

switchport mode access

switchport access vlan 20

4.4 SERVIÇO → interface fa0/8, interface fa0/9 e interface fa0/10

interface range fa0/8-10

```
switchport mode access
switchport access vlan 30
```

```
do wr
```

4.5 Interface de truncamento

```
interface fa0/1
switchport mode trunk
switchport trunk allowed vlan 10,20,30
```

```
exit
```

5.Configuração de router

```
Router> en
```

```
Router# conf t
```

5.1 Porta principal

```
int gig0/0
no shutdown
do wr
```

5.2 Encapsulamento de VLANs

```
int gig0/0.10
encapsulation dot1Q 10
ip address 192.168.1.1 255.255.255.192
no shutdown
do wr
exit
```

```
int gig0/0.20
encapsulation dot1Q 20
ip address 192.168.1.65 255.255.255.192
no shutdown
do wr
exit
```

```
int gig0/0.30
encapsulation dot1Q 30
```

```
ip address 192.168.1.129 255.255.255.192
no shutdown
do wr
exit
```

5.3 Configuração de serviço DHCP

```
service dhcp
```

ip dhcp pool Admin-Pool

```
network 192.168.1.0 255.255.255.192
default-router 192.168.1.1
dns-server 192.168.1.1
domain-name Admin.com
ip dhcp excluded-address 192.168.1.1
exit
```

ip dhcp pool Finance-Pool

```
network 192.168.1.64 255.255.255.192
default-router 192.168.1.65
dns-server 192.168.1.65
domain-name Finance.com
ip dhcp excluded-address 192.168.1.65
exit
```

ip dhcp pool Service-Pool

```
network 192.168.1.128 255.255.255.192
default-router 192.168.1.129
dns-server 192.168.1.129
domain-name Service.com
ip dhcp excluded-address 192.168.1.129
```

```
exit
```

```
do wr
```

6.Access Point configuration

Port Status ☒ On

SSID TI - WiFi

2.4 GHz Channel 6

Coverage Range (meters) 140,00

Authentication

☐ Disabled ☐ WEP ☐ WPA-PSK ☒ WPA2-PSK

WEP Key

PSK Pass Phrase Admin@123

User ID

Password

Encryption Type AES

Port Status ☒ On

SSID Serviço - WiFi

2.4 GHz Channel 6

Coverage Range (meters) 140,00

Authentication

☐ Disabled ☐ WEP ☐ WPA-PSK ☒ WPA2-PSK

WEP Key

PSK Pass Phrase service@123

User ID

Password

Encryption Type AES

Port Status ☒ On

SSID Financia - WiFi

2.4 GHz Channel 6

Coverage Range (meters) 140,00

Authentication

☐ Disabled ☐ WEP ☐ WPA-PSK ☒ WPA2-PSK

WEP Key

PSK Pass Phrase finance@123

User ID

Password

Encryption Type AES

7.Imagens de ping e conexão

7.1 ping de TI - PC0 para Financia - PC0

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.130

Pinging 192.168.1.130 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.130: bytes=32 time<1ms TTL=127
Reply from 192.168.1.130: bytes=32 time<1ms TTL=127
Reply from 192.168.1.130: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.130:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

7.2 Ping de Serviço - PC0 para smartphone - Finance

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.69

Pinging 192.168.1.69 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.69: bytes=32 time=15ms TTL=127
Reply from 192.168.1.69: bytes=32 time=17ms TTL=127
Reply from 192.168.1.69: bytes=32 time=16ms TTL=127

Ping statistics for 192.168.1.69:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 15ms, Maximum = 17ms, Average = 16ms

C:\>
```