Liste des machines

VLAN 10 : Data
VLAN 20 : ToIP
VLAN 30 : InterRTR
VLAN 40 : WifiBooktic
VLAN 50 : WiFiPublic
VLAN 60 : WAN

Nom	VLAN	IP	Masque	Passerelle	Commutateur de connexion
Srv1VLAN10	10	172.17.0.10	255.255.255.0	172.17.0.1	S1E1
Srv2VLAN20	20	172.18.0.10	255.255.255.0	172.18.0.1	S1E2
PC1VLAN10	10	172.17.0.11	255.255.255.0	172.17.0.1	S2E2
PC2VLAN10	10	172.17.0.12	255.255.255.0	172.17.0.1	S2E2
PC1VLAN40	40	172.19.0.11	255.255.255.128	172.19.0.1	S2E1
PC2VLAN40	40	172.19.0.12	255.255.255.128	172.19.0.1	S2E1
PC1VLAN50	50	172.19.0.131	255.255.255.128	172.19.0.129	S1E2
RTR_LAN	10 20 30 40 50	Fa0/0.10 :172.17.0.1 Fa0/0.20 :172.18.0.1 Fa0/0.30 : 172.20.0.1 Fa0/0.40 :172.19.0.1 Fa0/0.50 :172.19.0.129	255.255.255.0 255.255.255.0 255.255.255.252 255.255.255.128 255.255.255.128		S1E1
PF1	60 30	Fa0/0 : 88.0.0.2 Fa0/1 : 172.20.0.2	255.255.255.252 255.255.255.252		S1E1
FAI	60	Fa0/0 : 88.0.0.1	255.255.255.252		S1E1

Configurations des commutateurs

S1E1

```
S1E1#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1
10   Data                             active    Fa0/2, Fa0/3, Fa0/4, Fa0/5
                                                Fa0/6, Fa0/7, Fa0/8
20   ToIP                             active    Fa0/9, Fa0/10, Fa0/11, Fa0/12
30   InterRTR                         active    Fa0/19, Fa0/20, Fa0/21
40   WiFiBooktic                      active    Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                Fa0/17, Fa0/18
50   WiFiPublic                       active
60   WAN                              active    Fa0/22, Fa0/23
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```

S1E2

```
S1E2#sh vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1, Fa0/24
10   Data                             active
20   ToIP                             active    Fa0/2, Fa0/3, Fa0/4, Fa0/5
                                                Fa0/6, Fa0/7, Fa0/8, Fa0/9
                                                Fa0/10, Fa0/11, Fa0/12, Fa0/13
                                                Fa0/14, Fa0/15, Fa0/16, Fa0/17
30   InterRTR                         active
40   WiFiBooktic                      active    Fa0/18, Fa0/19, Fa0/20
50   WiFiPublic                       active    Fa0/21, Fa0/22, Fa0/23
60   WAN                              active
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```

S2E1

```
S2E1#sh vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1
10   Data                             active    Fa0/2, Fa0/3, Fa0/4, Fa0/5
                                                Fa0/6, Fa0/7, Fa0/8, Fa0/9
                                                Fa0/10, Fa0/11, Fa0/12, Fa0/13
                                                Fa0/14, Fa0/15, Fa0/16, Fa0/17
                                                Fa0/18, Fa0/19
20   ToIP                             active    Fa0/20, Fa0/21
40   WiFiBooktic                      active    Fa0/22, Fa0/23, Fa0/24
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```

S2E2

```
S2E2#sh vlan

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Fa0/1
10   Data                              active    Fa0/2, Fa0/3, Fa0/4, Fa0/5
                                                 Fa0/6, Fa0/7, Fa0/8, Fa0/9
                                                 Fa0/10, Fa0/11, Fa0/12, Fa0/13
                                                 Fa0/14, Fa0/15, Fa0/16, Fa0/17
                                                 Fa0/18
20   ToIP                              active    Fa0/19, Fa0/20, Fa0/21
40   WiFiBooktic                       active    Fa0/22, Fa0/23, Fa0/24
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
```

Configurations des routeurs

RTR_LAN

```
FastEthernet0/0.10 is up, line protocol is up (connected)
  Hardware is PQUICC_FEC, address is 0030.a3b8.8501 (bia 0030.a3b8.8501)
  Internet address is 172.17.0.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 10
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last clearing of "show interface" counters never
FastEthernet0/0.20 is up, line protocol is up (connected)
  Hardware is PQUICC_FEC, address is 0030.a3b8.8501 (bia 0030.a3b8.8501)
  Internet address is 172.18.0.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 20
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last clearing of "show interface" counters never
FastEthernet0/0.30 is up, line protocol is up (connected)
  Hardware is PQUICC_FEC, address is 0030.a3b8.8501 (bia 0030.a3b8.8501)
  Internet address is 172.20.0.1/30
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 30
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last clearing of "show interface" counters never
FastEthernet0/0.40 is up, line protocol is up (connected)
  Hardware is PQUICC_FEC, address is 0030.a3b8.8501 (bia 0030.a3b8.8501)
  Internet address is 172.19.0.1/25
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 40
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last clearing of "show interface" counters never
FastEthernet0/0.50 is up, line protocol is up (connected)
  Hardware is PQUICC_FEC, address is 0030.a3b8.8501 (bia 0030.a3b8.8501)
  Internet address is 172.19.0.129/25
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 50
```

```
Gateway of last resort is 172.20.0.2 to network 0.0.0.0

     172.17.0.0/24 is subnetted, 1 subnets
C       172.17.0.0 is directly connected, FastEthernet0/0.10
     172.18.0.0/24 is subnetted, 1 subnets
C       172.18.0.0 is directly connected, FastEthernet0/0.20
     172.19.0.0/25 is subnetted, 2 subnets
C       172.19.0.0 is directly connected, FastEthernet0/0.40
C       172.19.0.128 is directly connected, FastEthernet0/0.50
     172.20.0.0/30 is subnetted, 1 subnets
C       172.20.0.0 is directly connected, FastEthernet0/0.30
S*   0.0.0.0/0 [1/0] via 172.20.0.2

RTR_LAN#
```

Interface fa0/0.10
encapsulation dot1q 10
ip address 172.17.0.1 255.255.255.0

Interface fa0/0.20
encapsulation dot1q 20
ip address 172.18.0.1 255.255.255.0

Interface fa0/0.30
encapsulation dot1q 30
ip address 172.20.0.1 255.255.255.252

Interface fa0/0.40
encapsulation dot1q 40
ip address 172.19.0.1 255.255.255.128

Interface fa0/0.50
encapsulation dot1q 50
ip address 172.19.0.1 255.255.255.128

PF1

FastEthernet0/0 : 88.0.0.2/30

```
PF1#sh interface Fa0/0
FastEthernet0/0 is up, line protocol is up (connected)
  Hardware is Lance, address is 000a.4148.a401 (bia 000a.4148.a401)
  Internet address is 88.0.0.2/30
```

FastEthernet0/1 : 172.20.0.2/30

```
PF1#sh interface Fa0/1
FastEthernet0/1 is up, line protocol is up (connected)
  Hardware is Lance, address is 000a.4148.a402 (bia 000a.4148.a402)
  Internet address is 172.20.0.2/30
```

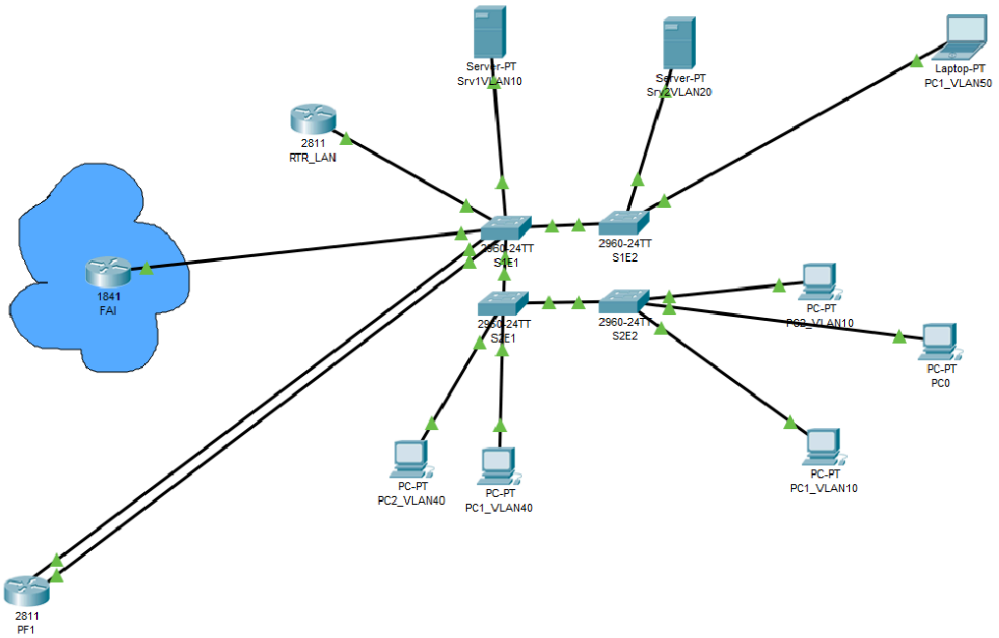
Les routes pour les autres réseaux vers le FAI.

```
PF1#sh ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 88.0.0.1 to network 0.0.0.0

     88.0.0.0/30 is subnetted, 1 subnets
C       88.0.0.0 is directly connected, FastEthernet0/0
S    172.16.0.0/14 [1/0] via 172.20.0.1
     172.20.0.0/30 is subnetted, 1 subnets
C       172.20.0.0 is directly connected, FastEthernet0/1
S*   0.0.0.0/0 [1/0] via 88.0.0.1
```

FAI

```
FAI#sh interface Fa0/0
FastEthernet0/0 is up, line protocol is up (connected)
  Hardware is Lance, address is 000a.4163.0301 (bia 000a.4163.0301)
  Internet address is 88.0.0.1/30
```

Voici l'architecture



TP2
Compte-rendu bis Maquettage de VLANs et Routage INTER VLAN

VLAN 70 : Imprimerie IP : 172.22.2.0

VLAN 80 : ServeursImpression IP : 172.22.3.0

VLAN 90 : VoIP IP : 172.22.1.0

Nom	VLAN	IP	Masque	Passerelle	Commutateur
PC1	90	172.22.1.2	255.255.255.0	172.22.1.1	S1_Bat2
PC2	70	172.22.2.2	255.255.255.0	172.22.2.1	S1_Bat2
PC3	80	172.22.3.2	255.255.255.0	172.22.3.1	S1_Bat2
PC4	90	172.22.1.3	255.255.255.0	172.22.1.1	S2_Bat2
PC5	70	172.22.2.3	255.255.255.0	172.22.2.1	S2_Bat2
PC6	80	172.22.3.3	255.255.255.0	172.23.3.1	S2_Bat2
RTR_Bat2	30 70 80 90	172.20.0.3 172.22.2.1 172.22.3.1 172.22.1.1	255.255.255.248 255.255.255.0 255.255.255.0 255.255.255.0		S1_Bat2

Interface GigabitEthernet0/0.70
encapsulation dot1q 70
ip address 172.22.2.1 255.255.255.0

Interface GigabitEthernet0/0.80
encapsulation dot1q 80
ip address 172.22.3.1 255.255.255.0

Interface GigabitEthernet0/0.90
encapsulation dot1q 90
ip address 172.22.1.1 255.255.255.0

Configuration des tables de routages sur les routeurs

RTR_LAN

```
RTR_LAN#sh ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 172.20.0.2 to network 0.0.0.0

     172.17.0.0/24 is subnetted, 1 subnets
C       172.17.0.0 is directly connected, FastEthernet0/0.10
     172.18.0.0/24 is subnetted, 1 subnets
C       172.18.0.0 is directly connected, FastEthernet0/0.20
     172.19.0.0/25 is subnetted, 2 subnets
C       172.19.0.0 is directly connected, FastEthernet0/0.40
C       172.19.0.128 is directly connected, FastEthernet0/0.50
     172.20.0.0/30 is subnetted, 1 subnets
C       172.20.0.0 is directly connected, FastEthernet0/0.30
S*   0.0.0.0/0 [1/0] via 172.20.0.2
               [1/0] via 172.20.0.3
```

RTR_Bat2

```
RTR_Bat2#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B -
BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 172.20.0.1 to network 0.0.0.0

     172.20.0.0/16 is variably subnetted, 2 subnets, 2 masks
C       172.20.0.0/29 is directly connected, GigabitEthernet0/0.30
L       172.20.0.3/32 is directly connected, GigabitEthernet0/0.30
     172.22.0.0/16 is variably subnetted, 6 subnets, 2 masks
C       172.22.1.0/24 is directly connected, GigabitEthernet0/0.90
L       172.22.1.1/32 is directly connected, GigabitEthernet0/0.90
C       172.22.2.0/24 is directly connected, GigabitEthernet0/0.70
L       172.22.2.1/32 is directly connected, GigabitEthernet0/0.70
C       172.22.3.0/24 is directly connected, GigabitEthernet0/0.80
L       172.22.3.1/32 is directly connected, GigabitEthernet0/0.80
S*   0.0.0.0/0 [1/0] via 172.20.0.1
               [1/0] via 172.20.0.2
```

Voici l’architecture du nouveau réseau.