



# Contexte HSP

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## Nos serveurs :

<b>Serveur GLPI</b>	<b>172.16.0.100</b>
<b>Serveur PROXY et PORTAIL CAPTIF</b>	<b>172.16.0.101</b>
<b>Serveur de supervision</b>	<b>172.16.0.102</b>
<b>Serveur AD (LDAP)/DNS/DHCP</b>	<b>172.16.0.103</b>
<b>Serveur AD Secondaire</b>	<b>172.16.0.104</b>
<b>Serveur WEB Mysql</b>	<b>172.16.0.105</b>
<b>Serveur de MESSAGERIE</b>	<b>172.16.0.106</b>

## Accès aux différents serveurs :

### AD primaire :

#### Compte Admin

ID : administrateur

**Mot de Passe :** Lprs25eni!

### Exchange :

#### Compte Admin

ID : administrateur

**Mot de Passe :** Lprs25eni!

### Zabbix :

#### Compte Super-Admin

ID : root

**Mot de Passe :** admin

ID : adminhsp

**Mot de Passe :** Lprs25ZABBIX&\*

### Serveur web :

ID : root

**Mot de Passe :** admin

### AD secondaire :

#### Compte Admin

ID : administrateur

**Mot de Passe :** Lprs25eni!

### PfSense :

#### Compte Admin

ID : admin

**Mot de Passe :** Lprs25PROXY&\*

### GLPI :

#### Compte Super-Admin

ID : root

**Mot de Passe :** admin

ID : adminhsp

**Mot de Passe :** Lprs25GLPI&\*

### Cisco routeur :

ID : admin

**Mot de Passe :** admin



Lycée privé et UFA

**Robert  
Schuman**

ENSEIGNEMENT CATHOLIQUE  
SOUS CONTRAT AVEC L'ETAT

### Cisco point d'accès Wi-Fi :

**ID :** cisco

**Mot de Passe :** Lprs25eni!

### Wi-Fi :

**SSID :** PRATICIEN\_CTX1

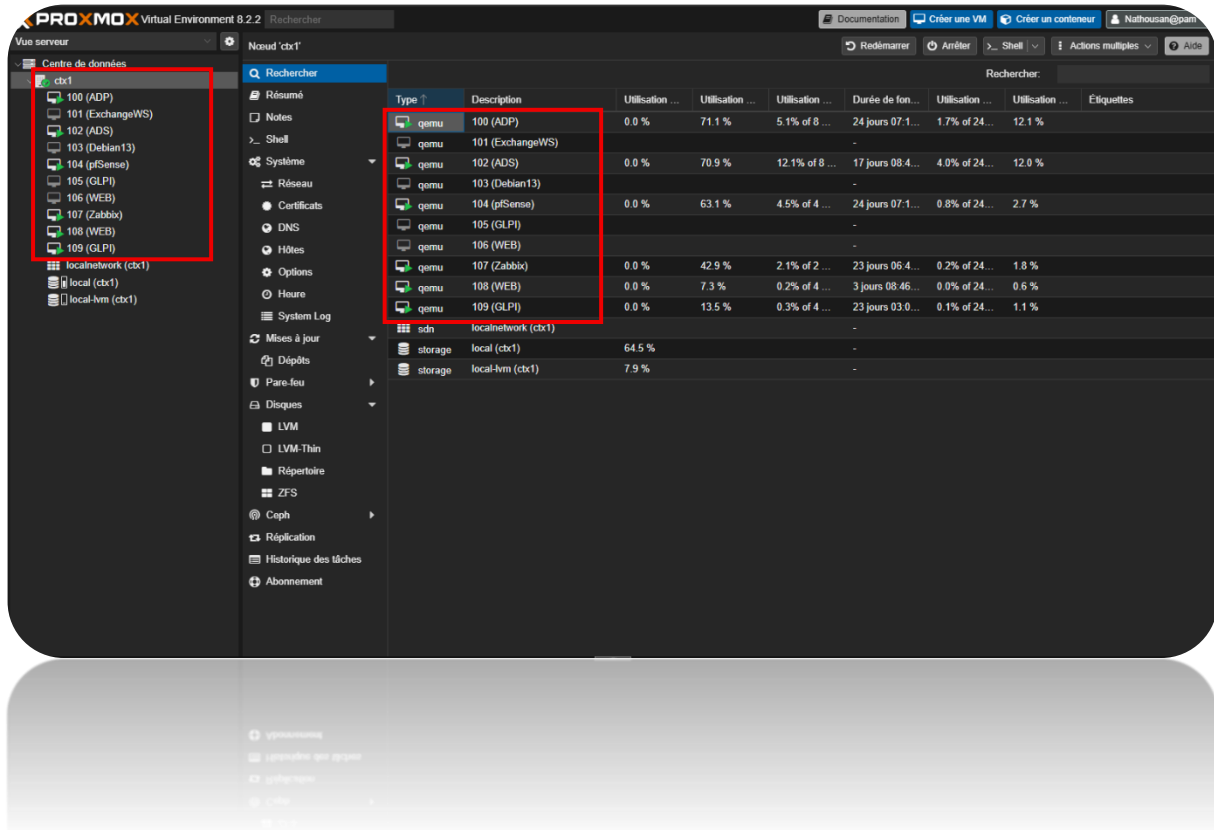
**SSID :** PRATICIEN\_CTX1

**SSID :** VISITEUR\_CTX1

**Mot de Passe :** Lprs25eni!

## Notre infrastructure :

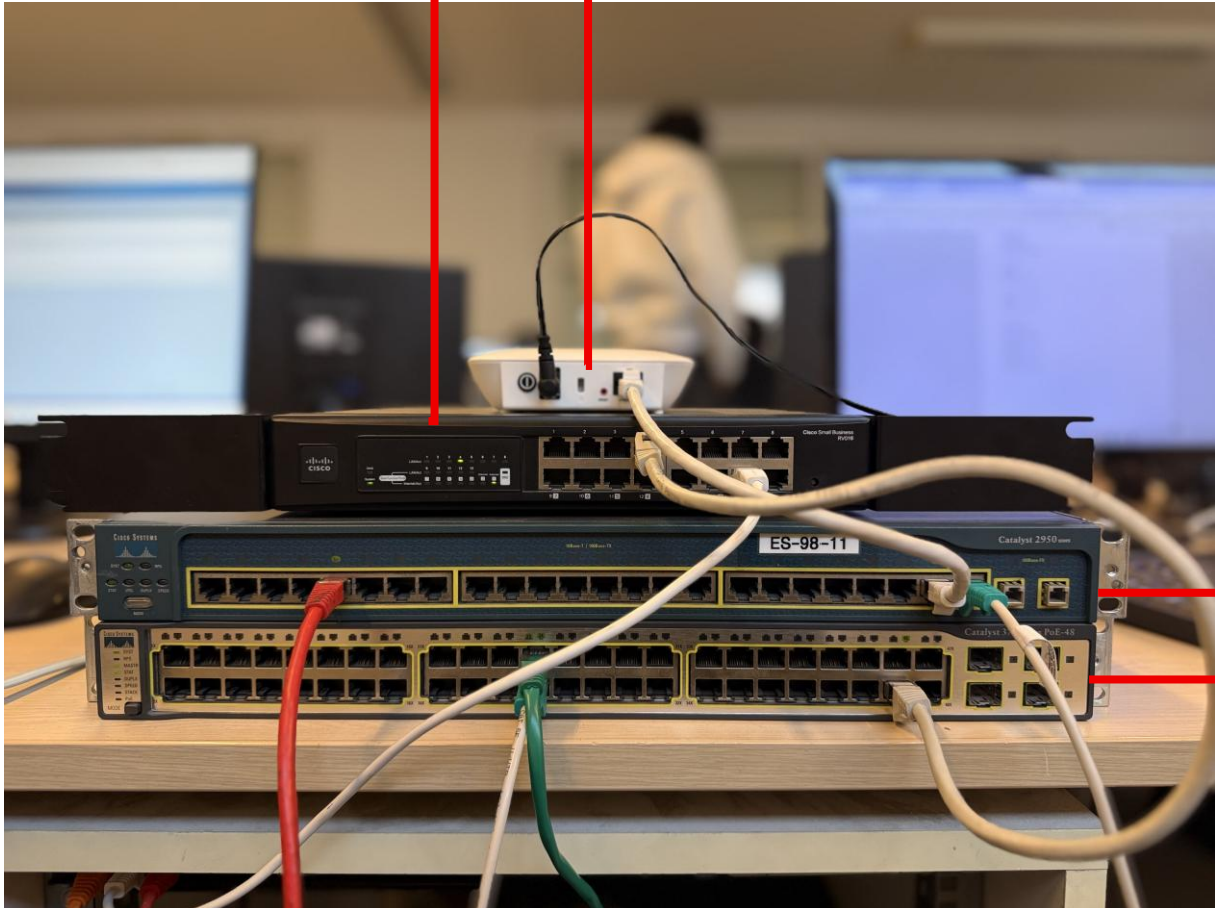
Notre environnement technologique repose sur un serveur physique sur lequel est installé Proxmox. Cet hyperviseur héberge plusieurs machines virtuelles assurant l'ensemble de nos services.



Il s'agit de **sept VM** au total :

- **Trois VM Windows Server 2022 :**
  - Contrôleur de domaine principal (AD primaire)
  - Contrôleur de domaine secondaire (AD secondaire)
  - Serveur de messagerie Microsoft Exchange
- **Trois VM Linux**, chacune dédiée à un service :
  - GLPI
  - Serveur Web
  - Zabbix (supervision)
- Une **VM pfSense** faisant office de pare-feu.

Switch cœur 3750 ←  
Switch d'étage 2950 ←  
Routeur Cisco  
Point d'accès Wi-Fi Cisco



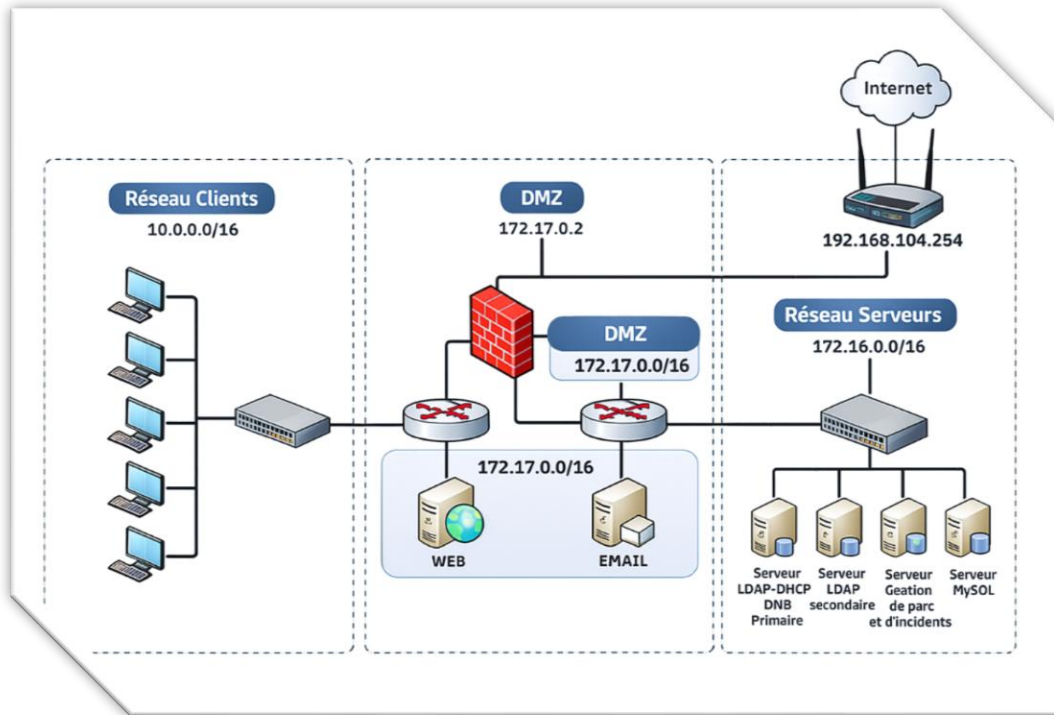
<b>Routeur Cisco</b>	
<b>Port 4</b>	Switch 3750
<b>Port Internet 1</b>	Vers FAI

<b>Switch 3750</b>	
<b>Port 23</b>	Vers le serveur
<b>Port 24</b>	Switch 2950 Lien Trunk
<b>Port 46</b>	Vers le routeur

<b>Switch 2950</b>	
<b>Port 5</b>	Client
<b>Port 23</b>	Point d'accès Wi-Fi
<b>Port 24</b>	Switch 3750 Lien Trunk



## Les adressages IP :

### AD Primaire :

IP : 172.16.0.103

Masque : 255.255.0.0

Passerelle : 172.16.0.1

Serveur DNS primaire : 127.0.0.1

### AD Secondaire :

IP : 172.16.0.104

Masque : 255.255.0.0

Passerelle : 172.16.0.1

Serveur DNS primaire : 172.16.0.103

Serveur DNS secondaire : 127.0.0.1

### Routeur :

IP : 192.168.104.254

### Point d'accès Wi-Fi :

IP : 192.168.1.245

### Site web :

IP : 172.16.0.105



## Les différents VLANs :

<b>VLANs 11 à 18</b>	Les différents services de l'hôpital HSP
<b>VLAN 10</b>	Les serveurs
<b>VLAN 51</b>	La DMZ
<b>VLAN 100</b>	La WAN (Internet)



## Configuration de nos switches :

<u>Configuration du Switch Coeur 3750 :</u>				<u>Configuration du Switch Coeur 3750 :</u>			
<u>Configuration VLAN :</u>				<u>VLANs &amp; Interfaces VLAN :</u>			
VLAN	Name	Status	Ports				
-----							
1	default	active	Fa1/0/25, Fa1/0/26, Fa1/0/27, Fa1/0/28, Fa1/0/29, Fa1/0/30, Fa1/0/31, Fa1/0/32, Fa1/0/33, Fa1/0/34, Fa1/0/35, Fa1/0/36, Fa1/0/37, Fa1/0/38, Fa1/0/39, Fa1/0/40, Fa1/0/41, Fa1/0/42, Fa1/0/43, Fa1/0/44, Fa1/0/45, Fa1/0/47, Fa1/0/48, Gi1/0/2, Gi1/0/3, Gi1/0/4	interface Vlan10  ip address 172.16.0.1 255.255.0.0  interface Vlan11  ip address 10.11.0.1 255.255.0.0  ip access-group 111 out  ip helper-address 172.16.0.103  interface Vlan12  ip address 10.12.0.1 255.255.0.0  ip access-group 112 out  ip helper-address 172.16.0.103  interface Vlan13  ip address 10.13.0.1 255.255.0.0  ip access-group 113 out  ip helper-address 172.16.0.103  interface Vlan14  ip address 10.14.0.1 255.255.0.0  ip access-group 114 out  ip helper-address 172.16.0.103  interface Vlan15  ip address 10.15.0.1 255.255.0.0  ip access-group 115 out  ip helper-address 172.16.0.103  interface Vlan16  ip address 10.16.0.1 255.255.0.0  ip access-group 116 out  ip helper-address 172.16.0.103  interface Vlan17  ip address 10.17.0.1 255.255.0.0  ip access-group 117 out  ip helper-address 172.16.0.103  interface Vlan18  ip address 10.18.0.1 255.255.0.0  ip access-group 118 out  ip helper-address 172.16.0.103  interface Vlan51  ip address 172.17.0.1 255.255.0.0  interface Vlan100  no ip address			
10	SERVEURS	active	Fa1/0/3, Fa1/0/4, Fa1/0/5, Fa1/0/6, Fa1/0/7, Fa1/0/8, Fa1/0/9, Fa1/0/10, Fa1/0/11, Fa1/0/12, Fa1/0/13, Fa1/0/14, Fa1/0/15, Fa1/0/16, Fa1/0/17, Fa1/0/18, Fa1/0/19, Fa1/0/20, Fa1/0/21, Fa1/0/22				
11	VISIO	active	(aucun port)				
12	LABO	active	(aucun port)				
13	OPHTALMO	active	(aucun port)				
14	ADMINISTRATIF	active	(aucun port)				
15	ANGIO	active	(aucun port)				
16	PRATICIEN	active	(aucun port)				
17	PATIENT	active	(aucun port)				
18	VISITEUR	active	(aucun port)				
51	DMZ	active	(aucun port)				
100	WAN	active	Fa1/0/1, Fa1/0/2, Fa1/0/46, Gi1/0/1				
1002	fddi-default	act/unsup					
1003	token-ring-def	act/unsup					
1004	fddinet-default	act/unsup					
1005	trnet-default	act/unsup					



<u>Configuration du Switch Coeur 3750 :</u>	<u>Configuration du Switch Coeur 3750 :</u>
<u>Port Access (Port qui fait passer qu'un seul VLAN) :</u>	
interface FastEthernet1/0/1	interface FastEthernet1/0/9
switchport access vlan 100	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/2	interface FastEthernet1/0/10
switchport access vlan 100	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/3	interface FastEthernet1/0/11
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/4	interface FastEthernet1/0/12
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/5	interface FastEthernet1/0/13
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/6	interface FastEthernet1/0/14
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/7	interface FastEthernet1/0/15
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
interface FastEthernet1/0/8	interface FastEthernet1/0/16
switchport access vlan 10	switchport access vlan 10
switchport mode access	switchport mode access
spanning-tree portfast	spanning-tree portfast
spanning-tree bpduguard enable	spanning-tree bpduguard enable
	interface FastEthernet1/0/17
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/18
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/19
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/20
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/21
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/22
	switchport access vlan 10
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable
	interface FastEthernet1/0/46
	switchport access vlan 100
	switchport mode access
	spanning-tree portfast
	interface GigabitEthernet1/0/1
	switchport access vlan 100
	switchport mode access
	spanning-tree portfast
	spanning-tree bpduguard enable

### Configuration du Switch Coeur 3750 :

#### Port Trunk (Port qui fait plusieurs VLAN) :

```
interface FastEthernet1/0/23
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,51,100
switchport mode trunk

interface FastEthernet1/0/24
switchport trunk encapsulation dot1q
switchport mode trunk

interface FastEthernet1/0/40
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 16-18
switchport mode trunk
spanning-tree portfast

interface FastEthernet1/0/47
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,51,100
switchport mode trunk

interface FastEthernet1/0/48
switchport trunk encapsulation dot1q
switchport mode trunk

interface GigabitEthernet1/0/2
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,51,100
switchport mode trunk

interface GigabitEthernet1/0/3
switchport trunk encapsulation dot1q
switchport mode trunk
```

### Configuration du Switch Coeur 3750 :

#### ACL :

```
access-list 111 permit ip 10.11.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 111 permit ip 172.16.0.0 0.0.255.255 10.11.0.0 0.0.255.255
access-list 111 deny ip any any

access-list 112 permit ip 10.12.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 112 permit ip 172.16.0.0 0.0.255.255 10.12.0.0 0.0.255.255
access-list 112 deny ip any any

access-list 113 permit ip 10.13.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 113 permit ip 172.16.0.0 0.0.255.255 10.13.0.0 0.0.255.255
access-list 113 deny ip any any

access-list 114 permit ip 10.14.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 114 permit ip 172.16.0.0 0.0.255.255 10.14.0.0 0.0.255.255
access-list 114 deny ip any any

access-list 115 permit ip 10.15.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 115 permit ip 172.16.0.0 0.0.255.255 10.15.0.0 0.0.255.255
access-list 115 deny ip any any

access-list 116 permit ip 10.16.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 116 permit ip 172.16.0.0 0.0.255.255 10.16.0.0 0.0.255.255
access-list 116 deny ip any any

access-list 117 permit ip 10.17.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 117 permit ip 172.16.0.0 0.0.255.255 10.17.0.0 0.0.255.255
access-list 117 deny ip any any

access-list 118 permit ip 10.8.0.0 0.0.255.255 172.16.0.0 0.0.255.255
access-list 118 permit ip 172.16.0.0 0.0.255.255 10.8.0.0 0.0.255.255
access-list 118 deny ip any any
```



<u>Configuration du Switch d'étage 2950 :</u>				<u>Configuration du Switch d'étage 2950 :</u>	
<u>Configuration VLAN :</u>				<u>Port Access (Port qui fait passer qu'un seul VLAN) :</u>	
VLAN	Name	Status	Ports	interface FastEthernet0/1	interface FastEthernet0/9
-----				switchport access vlan 11	switchport access vlan 13
1	default	active	Gi1/0/24	switchport mode access	switchport mode access
10	SERVEURS	active	(aucun port)	spanning-tree portfast	spanning-tree portfast
11	VISIO	active	Gi1/0/1, Gi1/0/2, Gi1/0/3, Gi1/0/4	spanning-tree bpduguard enable	spanning-tree bpduguard enable
12	LABO	active	Gi1/0/5, Gi1/0/6, Gi1/0/7, Gi1/0/8	interface FastEthernet0/2	interface FastEthernet0/10
13	OPHTALMO	active	Gi1/0/9, Gi1/0/10, Gi1/0/11, Gi1/0/12	switchport access vlan 11	switchport access vlan 13
14	ADMINISTRATIF	active	Gi1/0/13, Gi1/0/14, Gi1/0/15, Gi1/0/16	switchport mode access	switchport mode access
15	ANGIO	active	Gi1/0/17, Gi1/0/18, Gi1/0/19, Gi1/0/20	spanning-tree portfast	spanning-tree portfast
16	PRATICIEN	active	Gi1/0/21	spanning-tree bpduguard enable	spanning-tree bpduguard enable
17	PATIENT	active	Gi1/0/22	interface FastEthernet0/3	interface FastEthernet0/11
18	VISITEUR	active	Gi1/0/23	switchport access vlan 11	switchport access vlan 13
51	DMZ	active	(aucun port)	switchport mode access	switchport mode access
100	WAN	active	(aucun port)	spanning-tree portfast	spanning-tree portfast
1002	fdi-default	active		spanning-tree bpduguard enable	spanning-tree bpduguard enable
1003	token-ring-def	active		interface FastEthernet0/4	interface FastEthernet0/12
1004	fdinet-default	active		switchport access vlan 11	switchport access vlan 13
1005	trnet-default	active		switchport mode access	switchport mode access
				spanning-tree portfast	spanning-tree portfast
				spanning-tree bpduguard enable	spanning-tree bpduguard enable
				interface FastEthernet0/5	interface FastEthernet0/13
				switchport access vlan 12	switchport access vlan 14
				switchport mode access	switchport mode access
				spanning-tree portfast	spanning-tree portfast
				spanning-tree bpduguard enable	spanning-tree bpduguard enable
				interface FastEthernet0/6	interface FastEthernet0/14
				switchport access vlan 12	switchport access vlan 14
				switchport mode access	switchport mode access
				spanning-tree portfast	spanning-tree portfast
				spanning-tree bpduguard enable	spanning-tree bpduguard enable
				interface FastEthernet0/7	interface FastEthernet0/15
				switchport access vlan 12	switchport access vlan 14
				switchport mode access	switchport mode access
				spanning-tree portfast	spanning-tree portfast
				spanning-tree bpduguard enable	spanning-tree bpduguard enable
				interface FastEthernet0/8	interface FastEthernet0/16
				switchport access vlan 12	switchport access vlan 14
				switchport mode access	switchport mode access
				spanning-tree portfast	spanning-tree portfast
				spanning-tree bpduguard enable	spanning-tree bpduguard enable



### Configuration du Switch d'étage 2950 :

#### Port Access (Port qui fait passer qu'un seul VLAN) :

```
interface FastEthernet0/17
switchport access vlan 15
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/18
switchport access vlan 15
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/19
switchport access vlan 15
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/20
switchport access vlan 15
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/21
switchport access vlan 17
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/22
switchport access vlan 17
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/23
switchport access vlan 18
switchport mode access
spanning-tree portfast
spanning-tree bpduguard enable

interface FastEthernet0/24
switchport mode trunk
```

### Configuration du Switch d'étage 2950 :

#### Port Trunk (Port qui fait plusieurs VLAN) :

```
interface FastEthernet0/24
switchport mode trunk
```