

Cellules WIFI *et Sécurité* *Configuration*

L'objectif de ces cellules consiste à sécuriser le réseau WIFI en affectant des cellules WIFI aux différents VLAN.

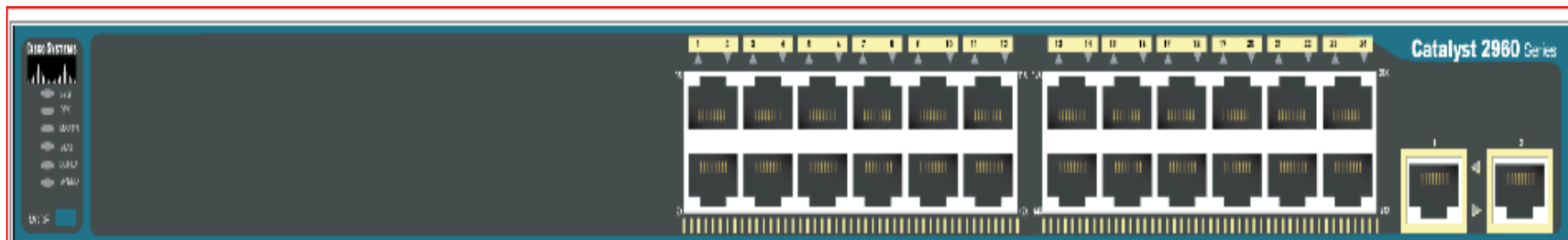
Les prérequis sont : 1 routage Inter-Vlan et la présence d'un serveur DHCP, DNS, IIS ou Apache

En considérant que nous avons 3 VLAN

- ▶ VLAN 100 Invités (Réseau 192.168.100.0/24)
- ▶ VLAN 200 Utilisateurs (Réseau 192.168.200.0/24)
- ▶ **VLAN 300 Serveurs** (Réseau 172.16.78.0/24)

Nous allons utiliser un port afin de relier la Borne WIFI au Switch et faire un trunk sur ce port.

- ▶ **Exemple : Port 0/10** Borne Wifi (Mode trunk allowed vlan 1,100, 200, 300)

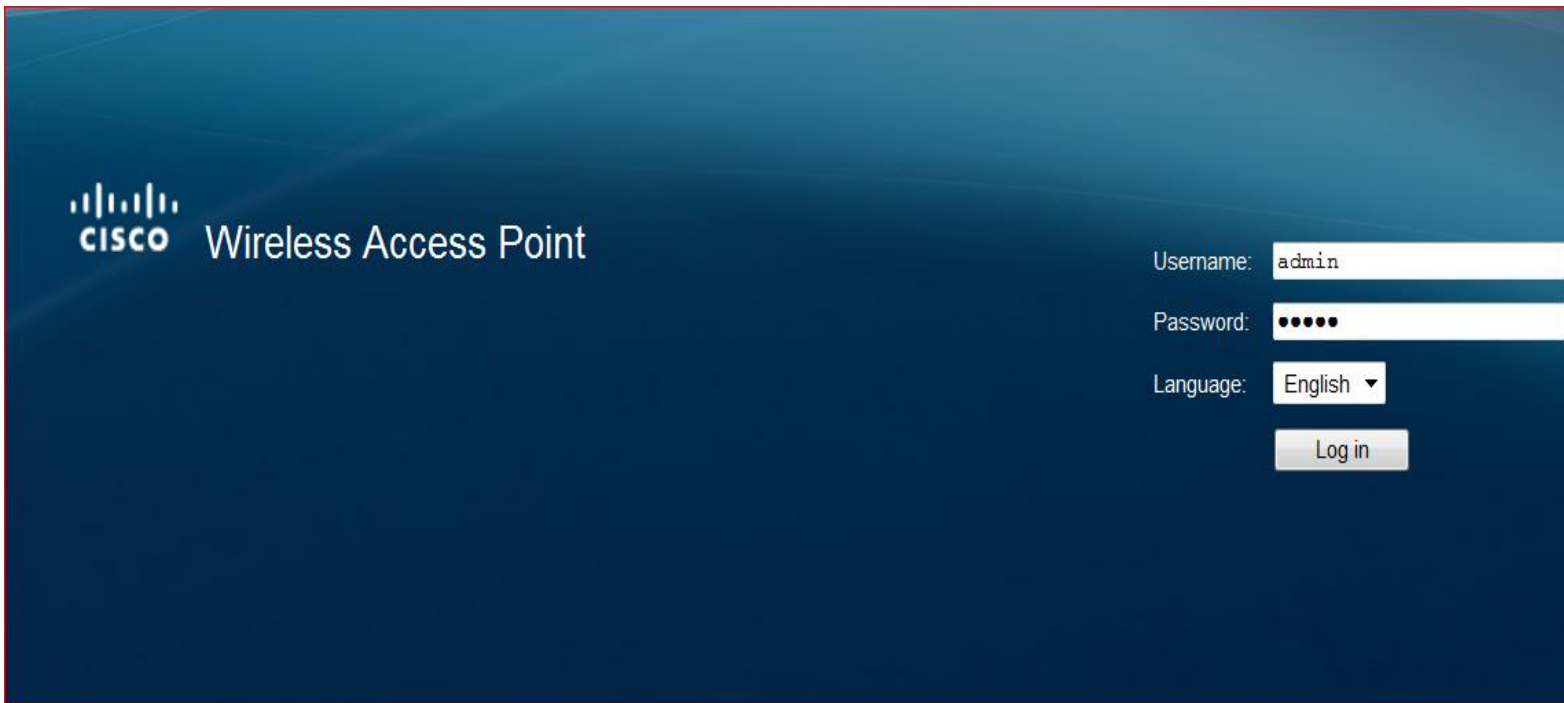


Exemple : WAP 371 with poe ou autres



Configuration de la Borne WAP

- ▶ Adresse IP usine est : 192.168.1.245 (A vérifier en fonction de la borne)
- ▶ logging : admin passwd : admin ou cisco ; cisco

The image shows the login interface of a Cisco Wireless Access Point. The background is a dark blue gradient. On the left, the Cisco logo (four vertical bars of increasing height) is followed by the text "cisco Wireless Access Point". On the right, there are three input fields: "Username:" with the text "admin" entered, "Password:" with five dots, and "Language:" with a dropdown menu showing "English". Below these fields is a "Log in" button.

cisco Wireless Access Point

Username: admin

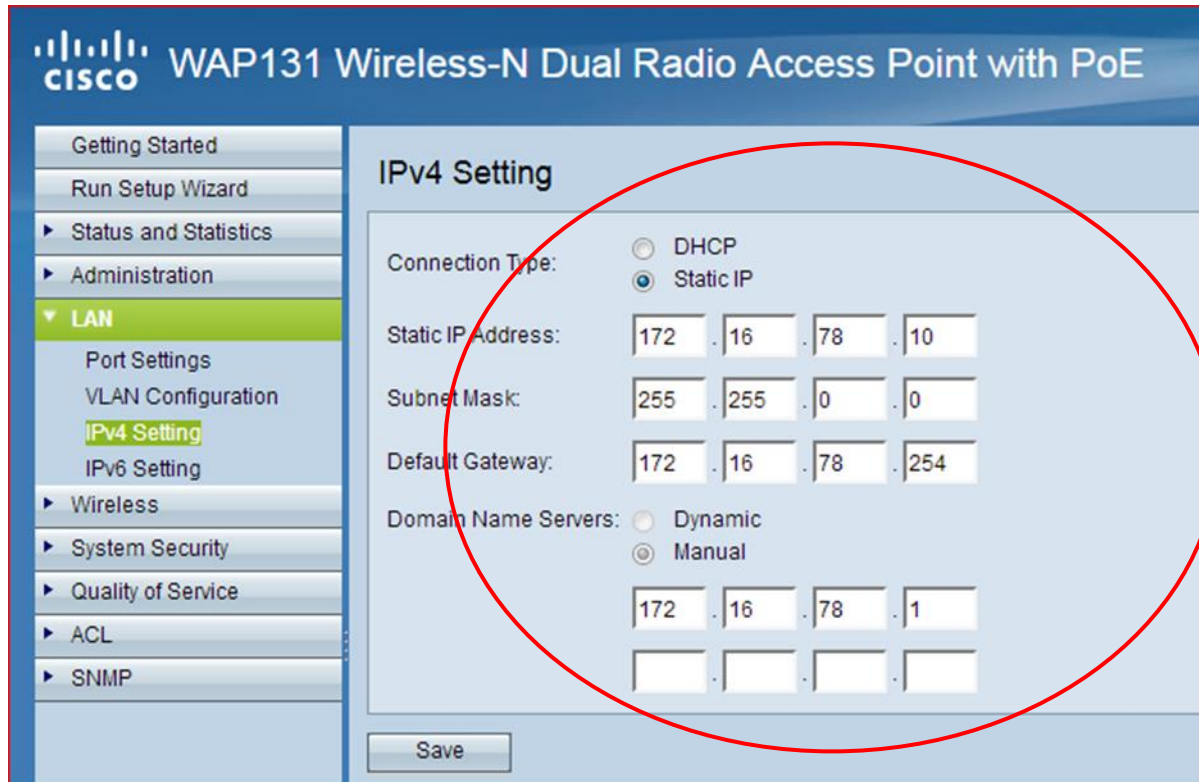
Password: •••••

Language: English ▼

Log in

Modification de l'adresse IP de la Borne

- Changer l'adresse IP par exemple en : (172.16.78.10) **Vlan Serveur**



The screenshot displays the configuration interface for a Cisco WAP131 Wireless-N Dual Radio Access Point with PoE. The left sidebar shows a navigation menu with options like 'Getting Started', 'Run Setup Wizard', 'Status and Statistics', 'Administration', 'LAN', 'Wireless', 'System Security', 'Quality of Service', 'ACL', and 'SNMP'. The 'LAN' section is expanded, and 'IPv4 Setting' is selected. The main content area is titled 'IPv4 Setting' and contains the following fields:

- Connection Type:** Radio buttons for 'DHCP' and 'Static IP'. 'Static IP' is selected.
- Static IP Address:** Four input boxes containing the values 172, 16, 78, and 10.
- Subnet Mask:** Four input boxes containing the values 255, 255, 0, and 0.
- Default Gateway:** Four input boxes containing the values 172, 16, 78, and 254.
- Domain Name Servers:** Radio buttons for 'Dynamic' and 'Manual'. 'Manual' is selected.
- Below the 'Manual' selection, there are two rows of four input boxes each. The first row contains the values 172, 16, 78, and 1. The second row contains empty boxes.

A red circle is drawn around the 'Static IP' section, highlighting the IP address and subnet mask fields. A 'Save' button is located at the bottom of the configuration area.

Gestion de la sécurité par Cellules WIFI en WPA2 personnel

Getting Started

Run Setup Wizard

► Status and Statistics

► Administration

► LAN

▼ Wireless

Radio

Networks

Scheduler

Scheduler Association

Bandwidth Utilization

MAC Filtering

WDS Bridge

WorkGroup Bridge

Quality of Service

► System Security

► Quality of Service

► ACL

► SNMP

Networks

Select the radio interface first, and then enter the configuration parameters.

Radio: ☒ Radio 1 (2.4 GHz)
☐ Radio 2 (5 GHz)

Virtual Access Points (SSIDs)								
	VAP No.	Enable	VLAN ID	SSID Name	SSID Broadcast	Security	MAC Filter	Channel Isolation
☒	0	☒	1	ciscosb	☒	WPA Personal ▼	Disabled ▼	☐
						Show Details		
☒	1	☒	100	JS-visiteurs	☒	WPA Personal ▼	Disabled ▼	☐
						Hide Details		
						WPA Versions: ☒ WPA-TKIP ☒ WPA2-AES Key: •••••••• (Range: 8-63 Characters) ☐ Show Key as Clear Text Key Strength Meter: Below Minimum Broadcast Key Refresh Rate 300 Sec (Range: 0-86400, 0 = Disable, Default: 300)		
☒	2	☒	200	JS-utilisateurs	☒	WPA Personal ▼	Disabled ▼	☐
						Show Details		
☒	3	☒	300	JS-Admin	☒	WPA Enterprise ▼	Disabled ▼	☐

Configuration du VLAN 300 pour administrer la borne en WIFI.

▶  WAP131 Wireless-N Dual Radio Access Point with PoE

Getting Started

Run Setup Wizard

▶ Status and Statistics

▶ Administration

▼ LAN

Port Settings

VLAN Configuration

IPv4 Setting

IPv6 Setting

▶ Wireless

▶ System Security

VLAN Configuration

MAC Address: 28:34:A2:49:1B:38

Untagged VLAN: ☒ Enable

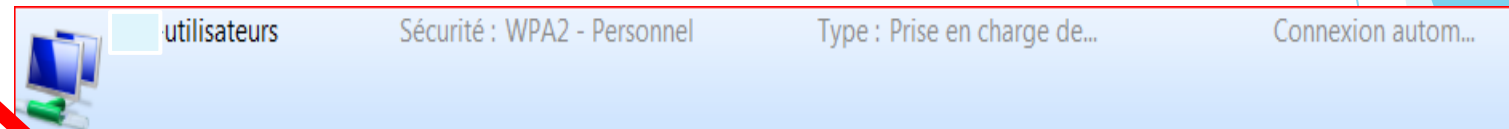
Untagged VLAN ID: (Range: 1 - 4094, Default: 1)

Management VLAN ID: (Range: 1 - 4094, Default: 1)

Résultats obtenus

Le réseau 200 correspond au Réseau et VLAN Utilisateurs.

► Connexion Wifi



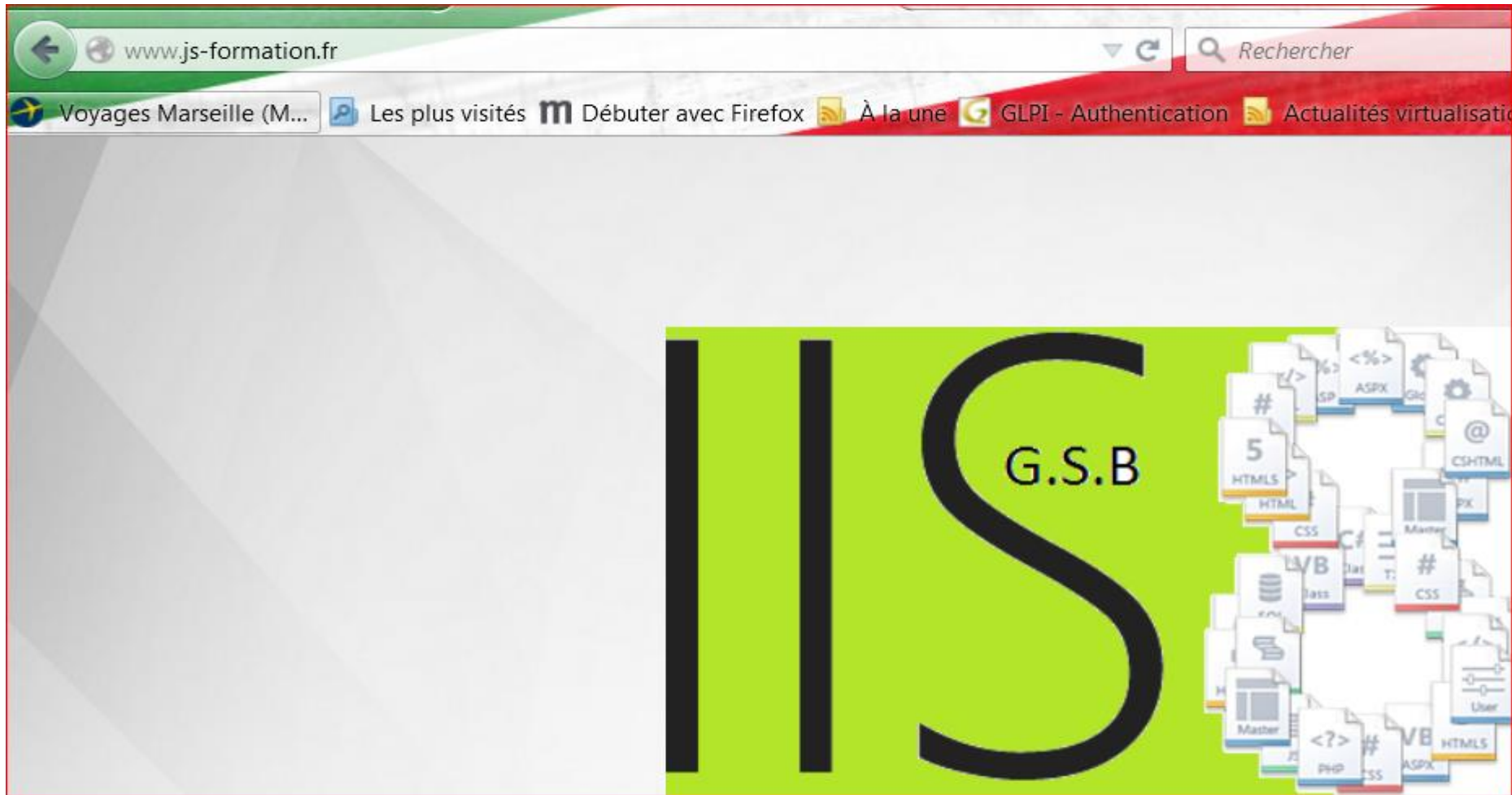
```
Administrateur : C:\windows\system32\CMD.exe
Carte réseau sans fil Connexion réseau sans fil :
    Suffixe DNS propre à la connexion. . . : js-formation.fr
    Adresse IPv4. . . . . : 192.168.200.2
    Masque de sous-réseau. . . . . : 255.255.255.0
    Passerelle par défaut. . . . . : 192.168.200.254

Carte Ethernet Connexion au réseau local :
    Suffixe DNS propre à la connexion. . . : js-formation.fr
    Adresse IPv4. . . . . : 192.168.200.1
    Masque de sous-réseau. . . . . : 255.255.255.0
    Passerelle par défaut. . . . . : 192.168.200.254
```

```
Carte réseau sans fil Connexion réseau sans fil :
    Suffixe DNS propre à la connexion. . . : js-formation.fr
    Adresse IPv4. . . . . : 192.168.100.2
    Masque de sous-réseau. . . . . : 255.255.255.0
    Passerelle par défaut. . . . . : 192.168.100.254

Carte Ethernet Connexion au réseau local :
    Suffixe DNS propre à la connexion. . . : js-formation.fr
    Adresse IPv4. . . . . : 192.168.200.1
    Masque de sous-réseau. . . . . : 255.255.255.0
    Passerelle par défaut. . . . . : 192.168.200.254
```


L' Accès au serveur WEB en Wifi et/ou applications Distantes.



Configuration du Switch sur le Port 10

Accès à la borne WIFI mise place du **trunk port N° 10**

interface GigabitEthernet1/0/10

switchport mode trunk

switchport trunk allowed vlan 1,100,200,300

Trunk pour routage Inter-vlan et accès au serveur DHCP

interface GigabitEthernet1/0/23 ou 1/0/24 (vers le routeur)

switchport mode trunk

switchport trunk allowed vlan 1,100,200,300

configuration du routage inter-vlan

- ▶ interface GigabitEthernet0/0.100
- ▶ encapsulation dot1Q 100
- ▶ ip address 192.168.100.254 255.255.255.0
- ▶ ip helper-address 172.16.78.1

- ▶ interface GigabitEthernet0/0.200
- ▶ encapsulation dot1Q 200
- ▶ ip address 192.168.200.254 255.255.255.0
- ▶ ip helper-address 172.16.78.1

- ▶ interface GigabitEthernet0/0.300
- ▶ encapsulation dot1Q 300
- ▶ ip address 172.16.78.254 255.255.255.0

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. These shapes are primarily located on the right side of the image, creating a modern, dynamic feel.

▶ **FIN !**