



JURISNOVA

Better days

JURIS NOVA

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À PROPOS DE NOUS



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Marketing agent and technical support



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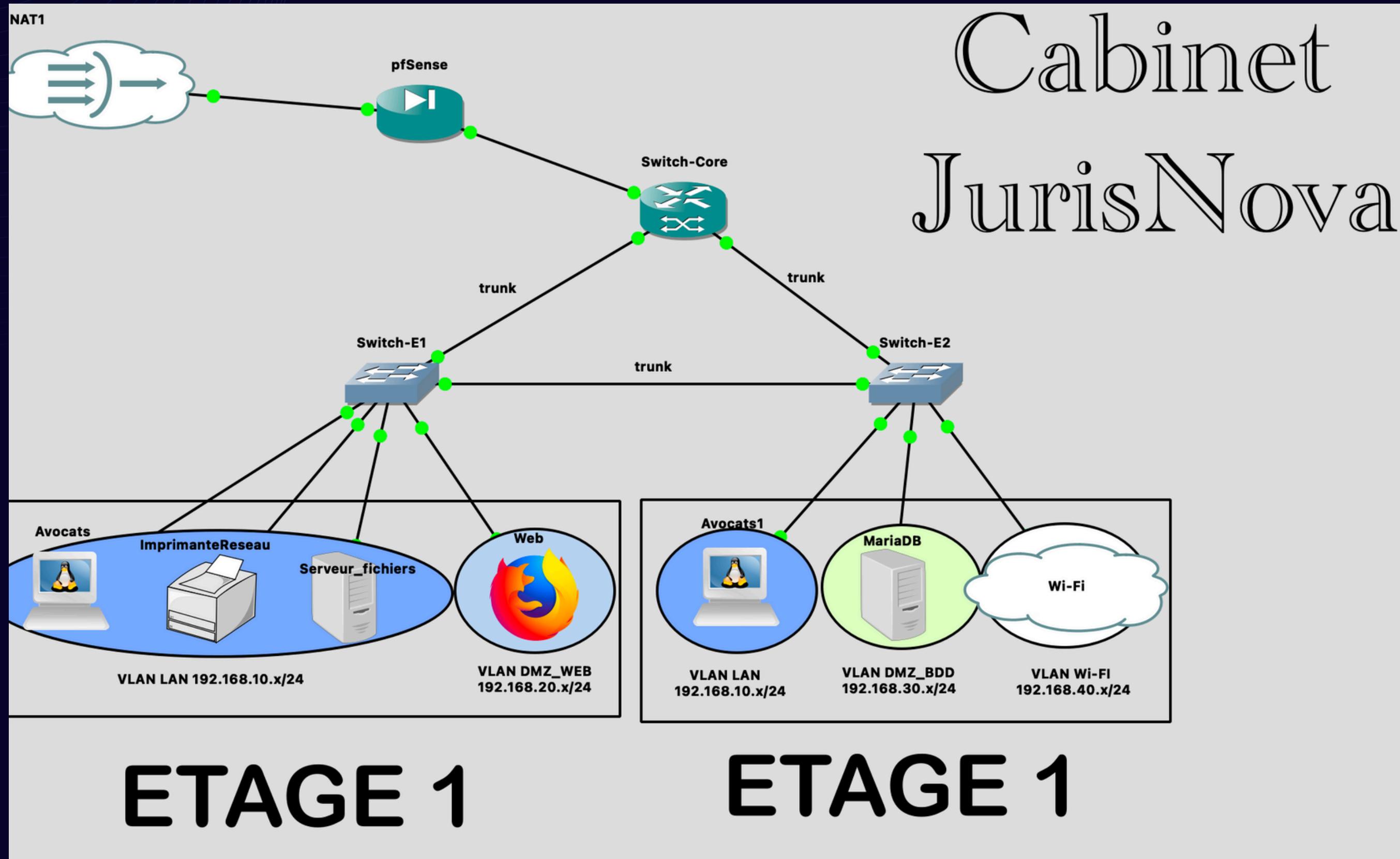
Fonctionnement en conditions
réelles





ARCHITECTURE RÉSEAU SEGMENTÉE ET SÉCURISÉE

- 2 étages reliés via double gaine technique
- Répartition en VLAN :
- DMZ Web (site vitrine, GLPI)
- DMZ BDD (MariaDB, accès restreint)
- LAN (postes, fichiers, imprimante)
- Wi-Fi invité (isolé, accès Internet seul)
- STP activé pour éviter les boucles



```
andonpendichev — Avocats — telnet 172.16.75.129 5034 — 80x24
Avocats : 192.168.10.1 255.255.255.0 gateway 192.168.10.254
Avocats> ping 192.168.10.254
192.168.10.254 icmp_seq=1 timeout
192.168.10.254 icmp_seq=2 timeout
192.168.10.254 icmp_seq=3 timeout
84 bytes from 192.168.10.254 icmp_seq=4 ttl=255 time=354.135 ms
192.168.10.254 icmp_seq=5 timeout
Avocats> ping 192.168.10.2
84 bytes from 192.168.10.2 icmp_seq=1 ttl=64 time=0.876 ms
84 bytes from 192.168.10.2 icmp_seq=2 ttl=64 time=1.096 ms
84 bytes from 192.168.10.2 icmp_seq=3 ttl=64 time=1.521 ms
^C
Avocats> ping 192.168.10.4
84 bytes from 192.168.10.4 icmp_seq=1 ttl=64 time=0.960 ms
84 bytes from 192.168.10.4 icmp_seq=2 ttl=64 time=685.582 ms
192.168.10.4 icmp_seq=3 timeout
84 bytes from 192.168.10.4 icmp_seq=4 ttl=64 time=0.593 ms
84 bytes from 192.168.10.4 icmp_seq=5 ttl=64 time=0.540 ms
```

```
R1#ping
*Jun 17 11:04:24.667: %SYS-5-CONFIG_I: Configured from console by console
[R1#ping 192.168.30.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.30.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 252/306/380 ms
[R1#ping 192.168.40.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.40.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 320/372/420 ms
R1#
```

```
MariaDB> ping 192.168.30.1
192.168.30.1 icmp_seq=1 ttl=64 time=0.001 ms
192.168.30.1 icmp_seq=2 ttl=64 time=0.001 ms
192.168.30.1 icmp_seq=3 ttl=64 time=0.001 ms
192.168.30.1 icmp_seq=4 ttl=64 time=0.001 ms
192.168.30.1 icmp_seq=5 ttl=64 time=0.001 ms
MariaDB> ping 192.168.10.1
84 bytes from 192.168.10.1 icmp_seq=1 ttl=63 time=604.552 ms
84 bytes from 192.168.10.1 icmp_seq=2 ttl=63 time=660.346 ms
84 bytes from 192.168.10.1 icmp_seq=3 ttl=63 time=654.151 ms
84 bytes from 192.168.10.1 icmp_seq=4 ttl=63 time=756.459 ms
```

```
andonpendichev — Routeur — telnet 172.16.75.129 5032 — 80x24
1, changed state to up
R1(config-if)#Interface Ethernet0/1 assigned DHCP address 192.168.122.60, mask 255.255.255.0
[R1(config-if)#exit
[R1(config)#do ping 8.8.8.8
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 12/29/48 ms
[R1(config)#do ping 192.168.10.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 296/368/576 ms
```

```

[andalonpendichev] andalonpendichev — Switch-E1 — telnet 172.16.75.130 5021 — 80x24
[andalonpendichev] VLAN0020
[andalonpendichev] Spanning tree enabled protocol ieee
[andalonpendichev] Root ID Priority 32788
[andalonpendichev] Address aabb.cc00.0100
[andalonpendichev] This bridge is the root
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Bridge ID Priority 32788 (priority 32768 sys-id-ext 20)
[andalonpendichev] Address aabb.cc00.0100
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Aging Time 15 sec
[andalonpendichev] Interface Role Sts Cost Prio.Nbr Type
[andalonpendichev] -----
[andalonpendichev] Et0/0 Desg LRN 100 128.1 Shr
[andalonpendichev] Et0/1 Desg LRN 100 128.2 Shr
[andalonpendichev] Et0/3 Desg LRN 100 128.4 Shr
[andalonpendichev]
[andalonpendichev] Switch-E1#

```

```

[andalonpendichev] andalonpendichev — Switch-E1 — telnet 172.16.75.130 5021 — 80x24
[andalonpendichev] VLAN0020
[andalonpendichev] Spanning tree enabled protocol ieee
[andalonpendichev] Root ID Priority 32788
[andalonpendichev] Address aabb.cc00.0100
[andalonpendichev] This bridge is the root
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Bridge ID Priority 32788 (priority 32768 sys-id-ext 20)
[andalonpendichev] Address aabb.cc00.0100
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Aging Time 15 sec
[andalonpendichev] Interface Role Sts Cost Prio.Nbr Type
[andalonpendichev] -----
[andalonpendichev] Et0/0 Desg LRN 100 128.1 Shr
[andalonpendichev] Et0/1 Desg LRN 100 128.2 Shr
[andalonpendichev] Et0/3 Desg LRN 100 128.4 Shr
[andalonpendichev]
[andalonpendichev] Switch-E1#
[andalonpendichev] Switch-E1#
[andalonpendichev] Switch-E1#

```

```

[andalonpendichev] andalonpendichev — Switch-Core — telnet 172.16.75.130 5024 — 80x24
[andalonpendichev] Et0/2 Desg FWD 100 128.3 Shr
[andalonpendichev]
[andalonpendichev] VLAN0020
[andalonpendichev] Spanning tree enabled protocol ieee
[andalonpendichev] Root ID Priority 32788
[andalonpendichev] Address aabb.cc00.0100
[andalonpendichev] Cost 100
[andalonpendichev] Port 2 (Ethernet0/1)
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Bridge ID Priority 32788 (priority 32768 sys-id-ext 20)
[andalonpendichev] Address aabb.cc00.0200
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Aging Time 300 sec
[andalonpendichev] Interface Role Sts Cost Prio.Nbr Type
[andalonpendichev] -----
[andalonpendichev] Et0/0 Desg FWD 100 128.1 Shr
[andalonpendichev] Et0/1 Root FWD 100 128.2 Shr
[andalonpendichev] Et0/2 Desg FWD 100 128.3 Shr

```

```

[andalonpendichev] andalonpendichev — Switch-Core — telnet 172.16.75.130 5024 — 80x24
[andalonpendichev] VLAN0030
[andalonpendichev] Spanning tree enabled protocol ieee
[andalonpendichev] Root ID Priority 32798
[andalonpendichev] Address aabb.cc00.0200
[andalonpendichev] This bridge is the root
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Bridge ID Priority 32798 (priority 32768 sys-id-ext 30)
[andalonpendichev] Address aabb.cc00.0200
[andalonpendichev] Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
[andalonpendichev] Aging Time 300 sec
[andalonpendichev] Interface Role Sts Cost Prio.Nbr Type
[andalonpendichev] -----
[andalonpendichev] Et0/0 Desg FWD 100 128.1 Shr
[andalonpendichev] Et0/1 Desg FWD 100 128.2 Shr
[andalonpendichev] Et0/2 Desg FWD 100 128.3 Shr

```



SYNTHÈSE DES ÉQUIPEMENTS

BETTER DAYS

22, Avenue Voltaire
Villetaneuse

Destinataire

JurisNova
31, rue de la Forêt
75008 Paris

**BETTER
DAYS****DEVIS**

Référence du devis : 123
Date du devis : 19/06/2025
Date de validité du devis : 03/07/2025

Informations additionnelles :

Service après-vente - Garantie : 1 an.
Date de début de la prestation : 14/06/2025

| Description | Quantité | Unité | Prix unitaire | % de TVA | Total TVA | Total TTC |
|---|----------|-------|---------------|----------|------------|-------------|
| PC : Dell Optiplex 7010 | 12 | Unité | 700,00 € | 20 % | 1 680,00 € | 10 080,00 € |
| Serveur : Fichier | 1 | Unité | 1 100,00 € | 20 % | 220,00 € | 1 320,00 € |
| Serveur Web : ProLiant ML30 G10 | 1 | Unité | 1 000,00 € | 10 % | 100,00 € | 1 100,00 € |
| Serveur BDD : HP ProLiant DL380 Gen10 | 1 | Unité | 1 500,00 € | 10 % | 150,00 € | 1 650,00 € |
| Imprimantes Réseau : Brother HL-L6400DW | 1 | Unité | 350,00 € | 10 % | 35,00 € | 385,00 € |
| Pare-feu : pfSense Netgate SG-2100 | 1 | Unité | 500,00 € | 10 % | 50,00 € | 550,00 € |
| Switch N2 : Cisco Catalyst C1000-24T-4G-L | 1 | Unité | 450,00 € | 10 % | 45,00 € | 495,00 € |
| Switch Core : Cisco Catalyst 3560CX-12PC-S | 1 | Unité | 1 000,00 € | 10 % | 100,00 € | 1 100,00 € |
| Point d'accès Wifi Pro : Ubiquiti UniFi 6 Lite | 1 | Unité | 150,00 € | 10 % | 15,00 € | 165,00 € |
| Fibre d'optique & RJ45 : Kit cablages + modules SFP | lot | | | | | 500,00 € |
| Onduleur, baie de brassage, support | lot | | | | | 700,00 € |

Total HT 15 650,00 €
Total TVA 2 395,00 €

Total TTC 18 045,00 €



MESURES DE SÉCURITÉ ET HAUTE DISPONIBILITÉ

- VLAN isolé : Wi-Fi
- Aucun accès WAN vers Web ni vers MariaDB

```

Routeur#sh access-list
Standard IP access list NAT_ACL
    10 permit 192.168.10.0, wildcard bits 0.0.0.255
    20 permit 192.168.20.0, wildcard bits 0.0.0.255
    30 permit 192.168.30.0, wildcard bits 0.0.0.255
    40 permit 192.168.40.0, wildcard bits 0.0.0.255 (3 matches)
Extended IP access list DMZ_PROTECTION
[  10 permit ip 192.168.20.0 0.0.0.255 host 192.168.20.254
  20 permit ip 192.168.30.0 0.0.0.255 host 192.168.30.254
  30 deny ip any 192.168.20.0 0.0.0.255
  40 deny ip any 192.168.30.0 0.0.0.255
  50 permit ip any any
Extended IP access list WIFI_ISOLATION
[  10 permit ip 192.168.40.0 0.0.0.255 host 192.168.40.254
  20 permit udp 192.168.40.0 0.0.0.255 any eq domain
  30 permit icmp 192.168.40.0 0.0.0.255 host 192.168.40.254
  40 deny ip 192.168.40.0 0.0.0.255 192.168.10.0 0.0.0.255
  50 deny ip 192.168.40.0 0.0.0.255 192.168.20.0 0.0.0.255 (9 matches)
  60 deny ip 192.168.40.0 0.0.0.255 192.168.30.0 0.0.0.255 (15 matches)
  70 permit ip 192.168.40.0 0.0.0.255 any (3 matches)
Routeur#

```

```

Wi-Fi> ping 192.168.20.1
*192.168.40.254 icmp_seq=1 ttl=255 time=9.084 ms (ICMP type:3, code:13, Communication administratively prohibited)
[*192.168.40.254 icmp_seq=2 ttl=255 time=11.200 ms (ICMP type:3, code:13, Communication administratively prohibited)
 *192.168.40.254 icmp_seq=3 ttl=255 time=10.257 ms (ICMP type:3, code:13, Communication administratively prohibited)
 ^C
Wi-Fi> ping 192.168.30.1
*192.168.40.254 icmp_seq=1 ttl=255 time=11.281 ms (ICMP type:3, code:13, Communication administratively prohibited)
*192.168.40.254 icmp_seq=2 ttl=255 time=11.528 ms (ICMP type:3, code:13, Communication administratively prohibited)
*192.168.40.254 icmp_seq=3 ttl=255 time=1.935 ms (ICMP type:3, code:13, Communication administratively prohibited)
^X*192.168.40.254 icmp_seq=4 ttl=255 time=3.047 ms (ICMP type:3, code:13, Communication administratively prohibited)
[*192.168.40.254 icmp_seq=5 ttl=255 time=1.788 ms (ICMP type:3, code:13, Communication administratively prohibited)

Wi-Fi>
Wi-Fi> ping 8.8.8.8
84 bytes from 8.8.8.8 icmp_seq=1 ttl=126 time=24.427 ms
84 bytes from 8.8.8.8 icmp_seq=2 ttl=126 time=12.202 ms
84 bytes from 8.8.8.8 icmp_seq=3 ttl=126 time=21.401 ms
^C
Wi-Fi>

```

```

Wi-Fi> ping 192.168.20.1
*192.168.40.254 icmp_seq=1 ttl=255 time=9.084 ms (ICMP type:3, code:13, Communication administratively prohibited)
[*192.168.40.254 icmp_seq=2 ttl=255 time=11.200 ms (ICMP type:3, code:13, Communication administratively prohibited)
 *192.168.40.254 icmp_seq=3 ttl=255 time=10.257 ms (ICMP type:3, code:13, Communication administratively prohibited)
 ^C
Wi-Fi> ping 192.168.30.1
*192.168.40.254 icmp_seq=1 ttl=255 time=11.281 ms (ICMP type:3, code:13, Communication administratively prohibited)
*192.168.40.254 icmp_seq=2 ttl=255 time=11.528 ms (ICMP type:3, code:13, Communication administratively prohibited)
*192.168.40.254 icmp_seq=3 ttl=255 time=1.935 ms (ICMP type:3, code:13, Communication administratively prohibited)
^X*192.168.40.254 icmp_seq=4 ttl=255 time=3.047 ms (ICMP type:3, code:13, Communication administratively prohibited)
[*192.168.40.254 icmp_seq=5 ttl=255 time=1.788 ms (ICMP type:3, code:13, Communication administratively prohibited)

Wi-Fi>
Wi-Fi> ping 8.8.8.8
84 bytes from 8.8.8.8 icmp_seq=1 ttl=126 time=24.427 ms
84 bytes from 8.8.8.8 icmp_seq=2 ttl=126 time=12.202 ms
84 bytes from 8.8.8.8 icmp_seq=3 ttl=126 time=21.401 ms
^C
Wi-Fi>

```

```
glpiuser@glpi:~
```

```
2: ens160: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:31:27:8e brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 172.16.75.132/24 brd 172.16.75.255 scope global dynamic noprefixroute ens160
        valid_lft 1305sec preferred_lft 1305sec
        inet6 fe80::20c:29ff:fe31:278e/64 scope link noprefixroute
            valid_lft forever preferred_lft forever
root@glpi:~# ping ping 192.168.30.2
^[[[A^[[A^[[B^[[B^[[A^[[A^C
root@glpi:~# ping 192.168.30.2
PING 192.168.30.2 (192.168.30.2) 56(84) bytes of data.
64 bytes from 192.168.30.2: icmp_seq=1 ttl=64 time=0.130 ms
64 bytes from 192.168.30.2: icmp_seq=2 ttl=64 time=0.112 ms
64 bytes from 192.168.30.2: icmp_seq=3 ttl=64 time=0.103 ms
64 bytes from 192.168.30.2: icmp_seq=4 ttl=64 time=0.119 ms
64 bytes from 192.168.30.2: icmp_seq=5 ttl=64 time=0.102 ms
64 bytes from 192.168.30.2: icmp_seq=6 ttl=64 time=0.105 ms
^C
--- 192.168.30.2 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5123ms
rtt min/avg/max/mdev = 0.102/0.111/0.130/0.010 ms
root@glpi:~#
```

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www.jurisnova.com



Cabinet JurisNova

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Accueil À propos

Me Richard Dupond

Fondateur de JurisNova. Spécialiste reconnu en droit commercial et en compliance.



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