

Documentation – Mise en place du MAC-Locking sur switches Extreme

1. Contexte

Dans le réseau pédagogique, les postes utilisateurs sont connectés directement aux switches d'accès.

Certains utilisateurs peuvent connecter plusieurs équipements derrière un même port.

2. Principe du MAC-locking

Le MAC-locking limite le nombre d'adresses MAC apprises sur un port.

3. VLAN concernés

VLAN ID	Nom VLAN	Limite MAC
11	IPB-PEDAGO-ENSC	2
78	IPB-PEDAGO-ENSCBP	2
318	IPB-PEDAGO-EGID	2
319	IPB-PEDAGO-EMMK	2
324	IPB-AUTOM	1
325	IPB-PEDAGOADM-EMMK	2
2060	IPB-PEDAGO-TBB	2
3021	EMMK-PEDAGO-IA	2

4. Activation globale du MAC-locking

```
enable mac-locking
```

```
show mac-locking
```

```
2:27 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:28 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:29 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:30 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:31 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:32 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:33 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:34 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:35 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:36 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:37 dis off|off off|off dis ena|ena clear 64 1 30:d0:42:fe:28:ef
2:38 dis off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:39 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:40 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:41 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:42 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:43 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:44 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:45 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:46 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:47 ena off|off off|off dis ena|ena clear 64 2 00:00:00:00:00:00
2:48 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:49 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:50 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:52 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
2:53 dis off|off off|off dis ena|ena clear 64 600 00:00:00:00:00:00
```

5. Activation sur un port

```
enable mac-locking ports 3:20
```

6. Limiter le nombre de MAC

configure mac-locking ports 3:20 first-arrival limit-learning 2

configure mac-locking ports 3:20 first-arrival limit-learning 1

7. Vérification

show mac-locking ports 3:20

```
* Slot-1 x5-STK1-sre.2 # show mac-locking ports 3:20
MAC locking is globally enabled.

Port    MAC    Trap    Log    FA    Limit    Link    Max Max    Last Violating
   Lock Thr|Viol Thr|Viol Aging Action Down   Stc FA   MAC Address
   Stat
-----
3:20    ena    off|off off|off dis   ena|ena clear  64  2   00:00:00:00:00:00

Legend:
Stat          - Status
Max Stc       - Max Static Count
dis           - Disabled
retain        - Retain MACs
Limit Action Cfg - If port should be disabled when learnt limit is exceeded
                dis - Port to be disabled when learn limit is exceeded
                ena - Port to remain enabled when learn limit is exceeded
Limit Action Stat - Port status on exceeding learn limit
```

8. Voir les MAC apprises

show fdb port 3:20

show fdb vlan 319

```
VLAN 319: show fdb vlan IPB-PEDAGO-EMMK
MAC          VLAN Name( Tag)  Age  Flags          Port / Virtual Port
-----
00:4e:01:c3:12:03  IPB-PEDAGO-EMMK(0319) 0057 d m           6:26
00:50:56:8a:1e:72  IPB-PEDAGO-EMMK(0319) 0065 d m           1:51
00:50:56:8a:71:4c  IPB-PEDAGO-EMMK(0319) 0131 d m           1:51
00:50:56:8a:ca:f9  IPB-PEDAGO-EMMK(0319) 0024 d m           1:51
00:50:56:8a:e2:4c  IPB-PEDAGO-EMMK(0319) 0030 d m           1:51
00:be:43:95:27:3b  IPB-PEDAGO-EMMK(0319) 0017 d m           1:51
34:17:eb:a5:e7:35  IPB-PEDAGO-EMMK(0319) 0052 d m           6:31
48:4d:7e:ed:1b:07  IPB-PEDAGO-EMMK(0319) 0165 d m           1:51
48:4d:7e:ed:8f:eb  IPB-PEDAGO-EMMK(0319) 0047 d m           1:51
60:a4:b7:f5:cc:c5  IPB-PEDAGO-EMMK(0319) 0007 d m           4:8
78:7b:8a:b1:b2:55  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:b7:f3:49  IPB-PEDAGO-EMMK(0319) 0047 d m           1:51
78:7b:8a:b7:f3:4d  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:b7:f3:d3  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:c2:93:d8  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:c2:94:92  IPB-PEDAGO-EMMK(0319) 0047 d m           1:51
78:7b:8a:c2:95:18  IPB-PEDAGO-EMMK(0319) 0073 d m           1:51
78:7b:8a:c2:97:88  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:c2:99:2f  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:c2:9a:82  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
78:7b:8a:c2:9a:a8  IPB-PEDAGO-EMMK(0319) 0046 d m           1:51
```

9. Désactivation

disable mac-locking ports 3:20