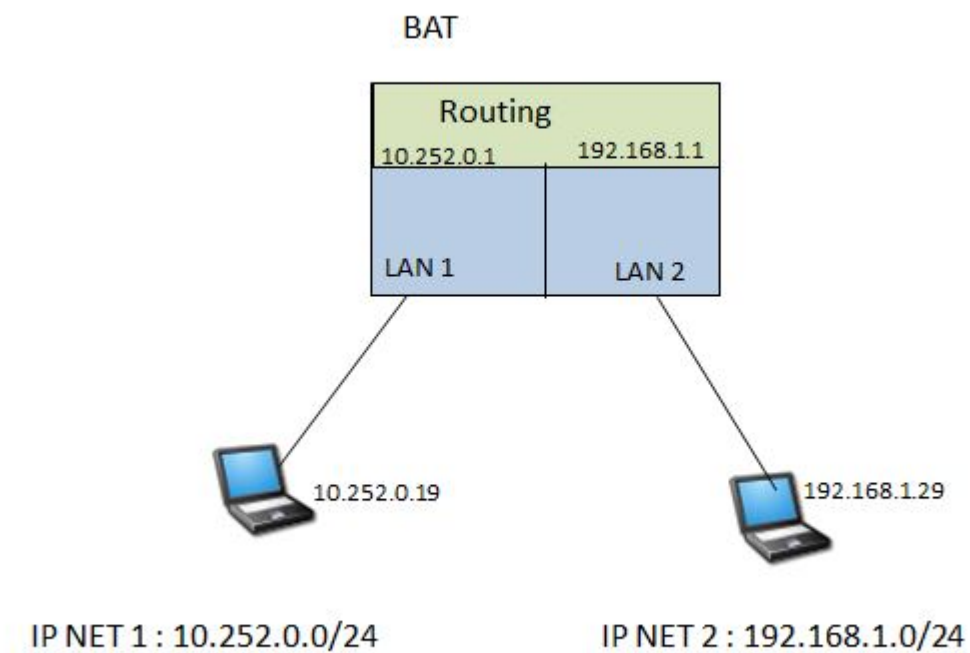# How to redirect Broadcast when the BAT is used as router

- 2018-02-21 - BAT, WLC (HiLCOS)

1   Scenario

Routing on a BAT is configured between 2 interfaces as follow :
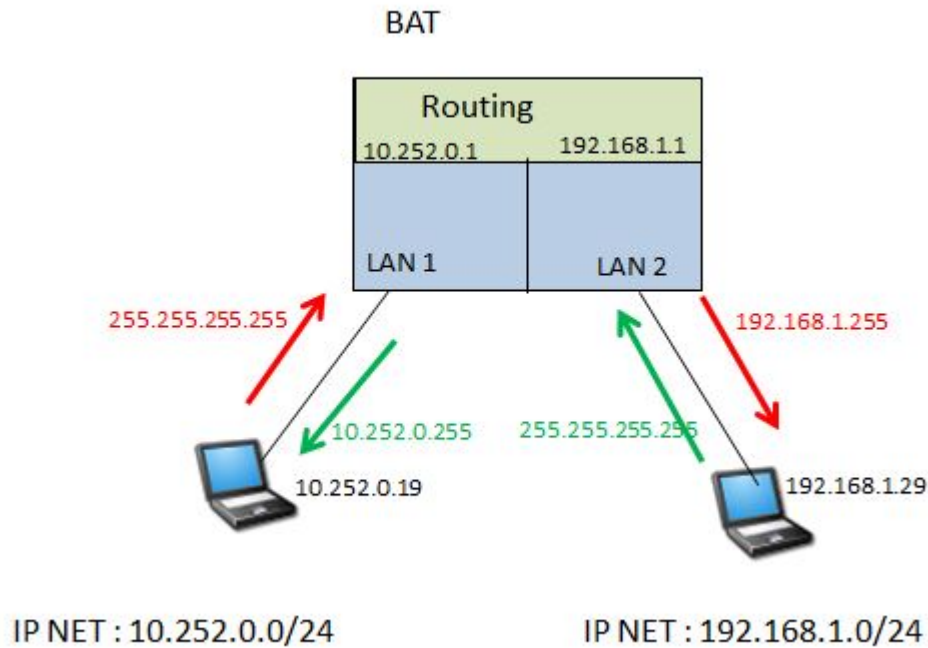

Configuration on the BAT (from the default config) :

set Setup/TCP-IP/Network-list/INTRANET 192.168.1.1 255.255.255.0 * BRG-1

set Setup/TCP-IP/Network-list/NET2 10.252.0.1 255.255.255.0 * BRG-2 * Intranet

set Setup/LAN-Bridge/Port-Data/LAN-1 * BRG-2

What we want to do :

Redirect specific IP broadcast (depending on the UDP port) from IP NET 1 to IP NET 2 and vice versa :

2   The IP redirect function

There is in the BAT a Firewall L2.

It makes possible a redirection of IP datas.

Nevertheless it works as a Firewall at the interface level. Enabling 1 rule on the interface will automatically turn it on , all the traffic which isn't defined in the rules will be dropped (at the interface level).

That's why in our case we'll define 2 preliminary rules, one to allow the IP traffic, another one to allows the ARPs (these 2 rules are enough to make IP communications working properly).

Then 2 additionnal rules : 1 to redirect the specific broadcast from IP NET 1 to IP NET 2 (based on the UDP port) and vice versa.

3   Broadcasts to redirect

Define the traffic which has to be redirected depending on the UDP port. (it can also be based on a TCP port but IP broadcast usually don't use TCP as transport layer protocol)

In our case we'll redirect traffic using UDP port 666

```
No.      Time        Date                  Source                Destination           Protocol
    1 0.000000  2013-03-27 10:39:29.819978  10.252.0.19            255.255.255.255       UDP
```

```
⊞ Frame 1: 60 bytes on wire (480 bits), 60 bytes captured (480 bits)
⊟ Ethernet II, Src: SpeedDra_00:05:48 (00:13:3b:00:05:48), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
  ⊞ Destination: Broadcast (ff:ff:ff:ff:ff:ff)
  ⊞ Source: SpeedDra_00:05:48 (00:13:3b:00:05:48)
    Type: IP (0x0800)
⊟ Internet Protocol, Src: 10.252.0.19 (10.252.0.19), Dst: 255.255.255.255 (255.255.255.255)
    Version: 4
    Header length: 20 bytes
  ⊞ Differentiated Services Field: 0x00 (DSCP 0x00: Default; ECN: 0x00)
    Total Length: 46
    Identification: 0x0000 (0)
  ⊞ Flags: 0x00
    Fragment offset: 0
    Time to live: 255
    Protocol: UDP (17)
  ⊞ Header checksum: 0xb0b0 [correct]
    Source: 10.252.0.19 (10.252.0.19)
    Destination: 255.255.255.255 (255.255.255.255)
⊟ User Datagram Protocol, Src Port: mdqs (666), Dst Port: disclose (667)
    Source port: mdqs (666)
    Destination port: disclose (667)
    Length: 26
  ⊞ Checksum: 0xef76 [correct]
⊞ Data (18 bytes)
```

4   Configuration

4.1   Via LAN Config

Configuration

èWireless LAN

- Security
    - Protocols
        - Add

Add the 4 rules :

4.2   Via CLI

Set Setup/LAN-Bridge/Protocol-Table/IP * * 0800 * * * * * LAN-1,LAN-2 Pass

Set Setup/LAN-Bridge/Protocol-Table/ARP * * 0806 * * * * * LAN-1,LAN-2 Pass

Set Setup/LAN-Bridge/Protocol-Table/NET1_TO_NET2 * * 0800 * * 17 666 666 LAN-1 Redirect 192.168.1.255

Set Setup/LAN-Bridge/Protocol-Table/NET2_TO_NET1 * * 0800 * * 17 666 666 LAN-2 Redirect 10.252.0.255