

Working of SNULL

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5 April 2021

SNULL module creates two interfaces. These interfaces are different from a simple loopback, in that whatever you transmit through one of the interfaces loops back to the other one, not to itself. It looks like you have two external links, but actually your computer is replying to itself.

This can't be achieved only from IP number assignment alone, because kernel wouldn't send out a packet through interface A that was directed to its own interface B. Instead, it would use the loopback channel without passing through snull.

To be able to use communication through snull interfaces, the source and the destination address need to be modified during data transmission. In other words, packets sent through one of the interfaces should be received by the other, but the receiver of the outgoing packet shouldn't be recognized as the local host. The same applies to the source address of received packets.

To achieve this kind of "hidden loopback," the snull interface toggles the least significant bit of the third octet of both the source and destination addresses; that is, it changes both the network number and the host number of class C IP numbers. The net effect is that packets sent to network A (connected to sn0, the first interface) appear on the sn1 interface as packets belonging to network B.

snullnet0 is the network that is connected to the sn0 interface. Similarly, snullnet1 is the network connected to sn1. The addresses of these networks should differ only in the least significant bit of the third octet. Example -

```
snullnet0 192.168.0.0
snullnet1 192.168.1.0
```

