



# NuFW firewall : Now User Filtering Works

*Identity access management at the network filter level*

# Security policies

- Are always defined depending on user identity.
- Example :  
*Network administrators are allowed to connect to routers, in SSH.*

# Network Filters

- Have no concept of user.
- Have no link to the user directory (LDAP, Active Directory...).

*Firewalls provide per IP or per MAC address filtering*

**« Conventional » firewalls do not apply security policies.**

# As a result ...

- A user changing their computer MAC or IP address can benefit rights from other users.
- Network firewalls also miserably fail to filter traffic from multiuser machines (ie, ALL machines nowadays)



# NuFW

- Lays on top on Netfilter (with the NFQUEUE target, which passes datagram decisions to userland)
- Is linked to the user directory (with PAM)
- Requires an agent running on user's computer
- That software agent authenticates each connection separately
- Is Free Software - <http://nufw.org/>

# NuFW

- Overhead, only for connection opening datagrams
- Other datagrams are handled by Netfilter's conntrack
- Allows to do fine stuff, like per-user QoS, or per-user routing, thanks to the Linux kernel features.

# Questions ?

