

IPv6 Only alhálózat tervezése és implementálása OpenBSD környezetben

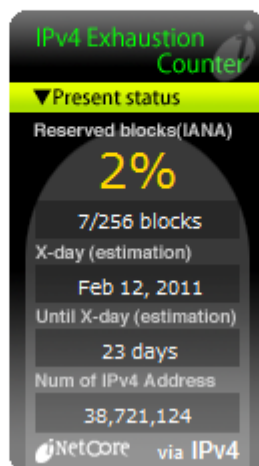
Kádár András

**Pázmány Péter Katolikus Egyetem
Információs Technológiai Kar**

Mikor fogynak el az IPv4 címek?

Projected IANA Unallocated Address Pool Exhaustion: 12-Feb-2011

Projected RIR Unallocated Address Pool Exhaustion: 26-Oct-2011





Internet Resources



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Internet Resources:

IPv4 Exhaustion

The pool of available IPv4 addresses was exhausted on 1 February, 2011. The depletion of the pool of IPv4 addresses is a key milestone in the history of the development of the Internet.

Over the last several years, the RIPE NCC, together with the other Regional Internet Registries (RIRs), has worked tirelessly to inform all stakeholders about the urgent need to adopt and deploy IPv4's successor, IPv6.

It is now more crucial than ever that ISPs, governments, network providers and other stakeholders ensure that they are IPv6 ready to ensure that the innovative evolution of the Internet continues.

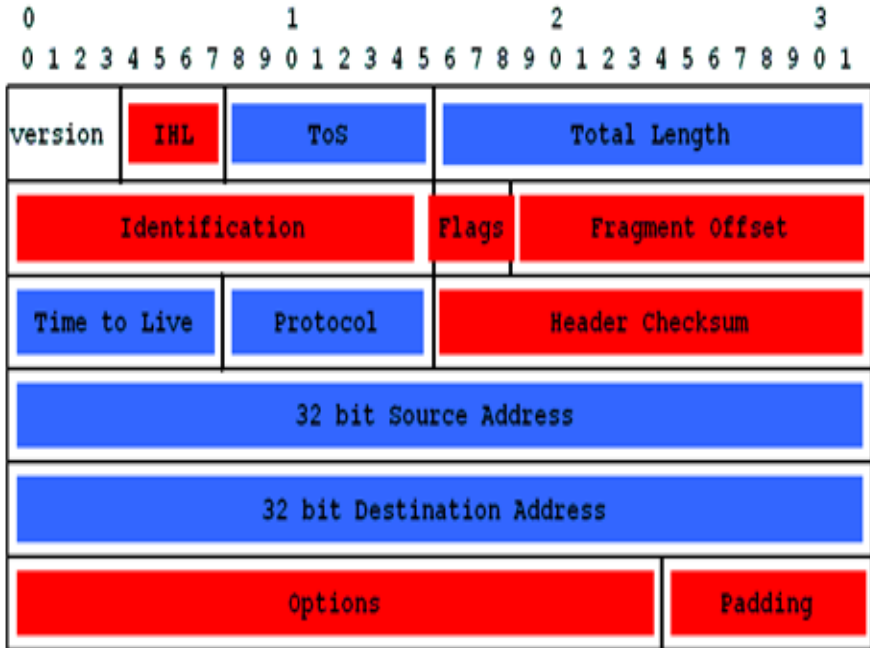
- [More Information](#)
- [Press and Media Information](#)

- IPv4
- IPv6
- AS Numbers
- Reverse DNS
- ENUM
- Ticket Queries
- Contact Registration Services
- News Archive
- Existing Independent

Translator alapú módszerek

- SIIT
- NAT-PT és NAPT-PT
- TRT

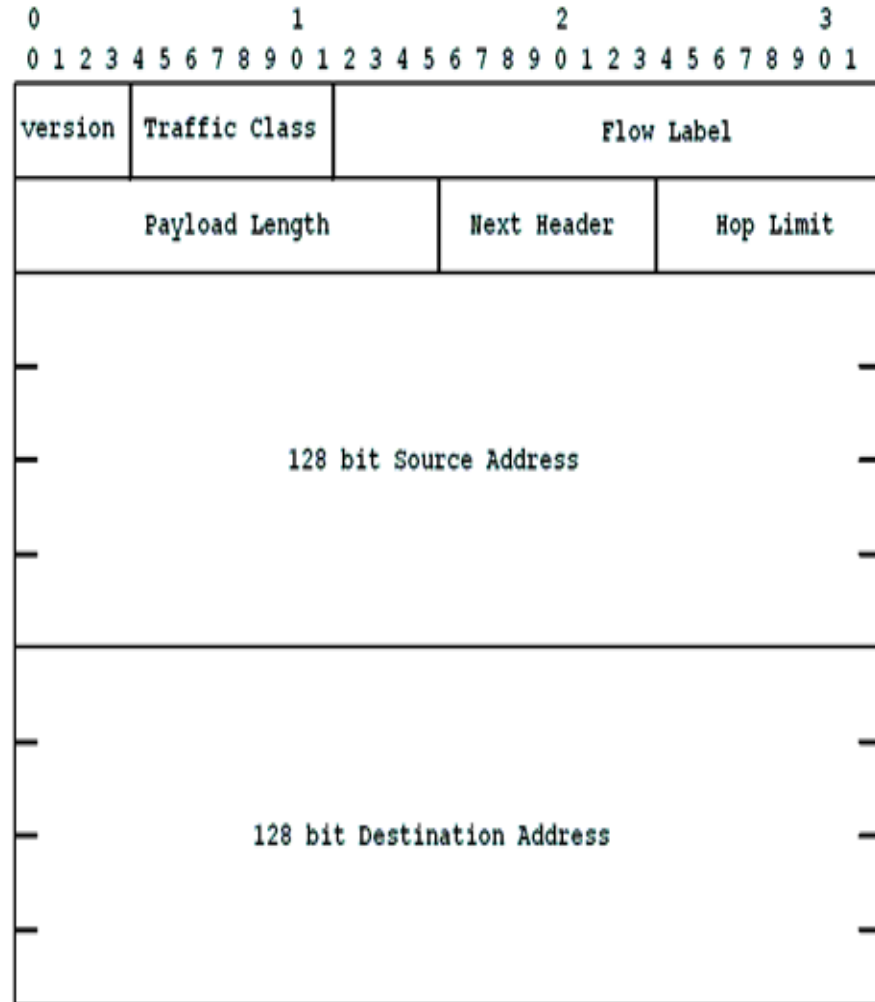
IPv4



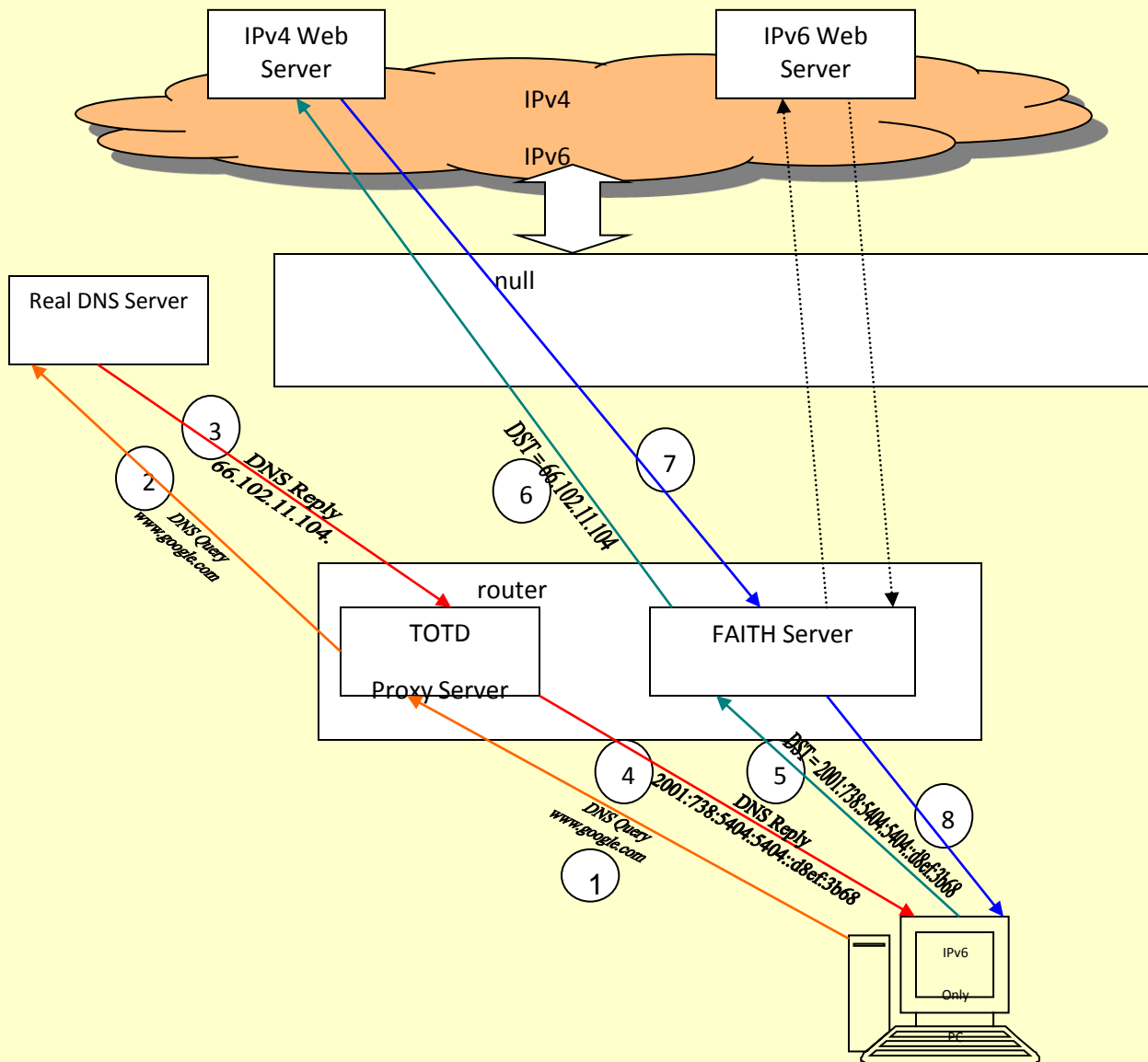
modified

removed

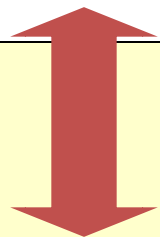
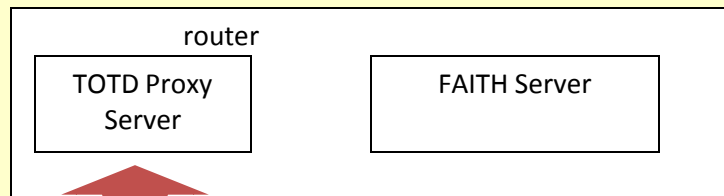
IPv6



A Faith rendszer tervezett működése



A szükséges beállítások I.

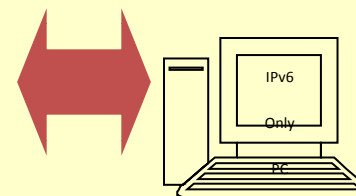


- Telepítés
- # mg /etc/totd.conf ;

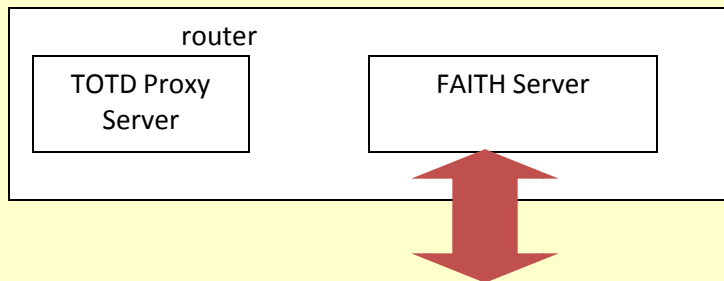
forwarder 10.4.21.254 port 53
prefix 2001:738:5404:5404:

•gedit /etc/resolv.conf

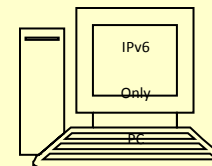
nameserver 2001:738:5404:5404::600



A szükséges beállítások II.



- Telepítés
- `ifconfig faith0 up`
- `route add -inet6 2001:738:5404:5404:: -prefixlen 64 ::1`
- `route change -inet6 2001:738:5404:5404:: -prefixlen 64 -ifp faith0`
- `echo '2001:738:5404::/64 permit 0.0.0.0/0' > /etc/faithd.conf`
- `faithd http`
- `faithd https`
- `faithd telnet`
- `faithd finger`
- `faithd smtp`
- `faithd smtps`
- `faithd imap`
- `faithd imaps`



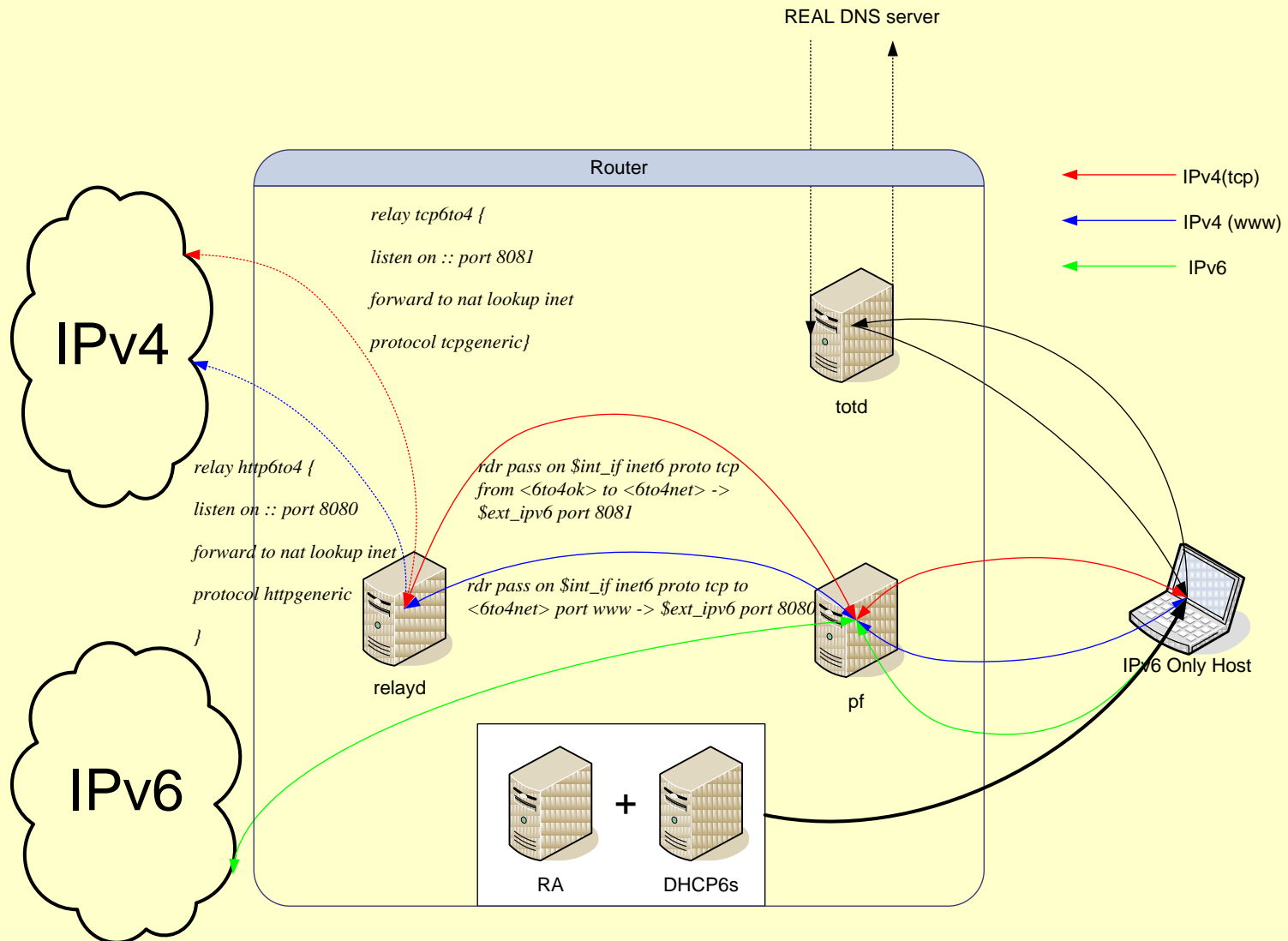
Nem lehet megoldás, mert..

- Kevés dokumentáció
- Nem működik minden protokollra
- Nincs kernel szintű támogatás
- Kernel fordításra is szükség van

PF és relayd

- PF
 - Az OpenBSD csomagszűrője
 - egy teljes, mindentudó tűzfal, amely támogatja az ún. ALTQ (Alternate Queuing, vagyis a “váltóbesorolás”) megoldást. Az ALTQ lehetővé teszi a sávszélesség korlátozását a szolgáltatás minősége (Quality of Service, QoS) alapján.

PF és relayd segítségével implementált TRT



Köszönöm a figyelmet!

