



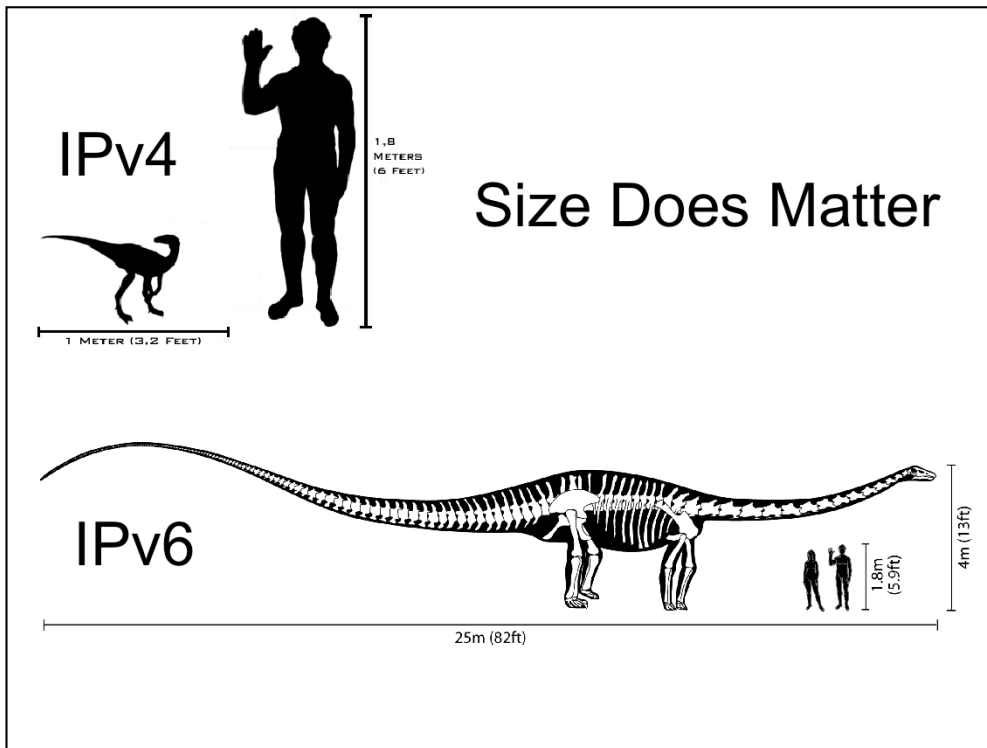
Vesna Manojlovic, RIPE NCC
INEX meeting, 30 June 2009, Dublin

5 main messages:

- **RIPE is not RIPE NCC**
- IPv6: Act Now (.org)
- RIPE Policies Need your Participation
- RIPE NCC members are invited into discussion
- Independent Resources Users: decide

DNSSEC is not hot any more: it's just "business as usual":

1. RIPE NCC was among the first organisations to sign all its forward and reverse zones in 2005, and has been successfully running DNSSEC since then.
2. Our DNSSEC infrastructure is ready for an update - we're soon going to update our hardware, software and procedures, and improve upon some of the more error-prone aspects of our system.
3. Outside the RIPE NCC:
 - The root will be signed this year:
<http://www.icann.org/en/announcements/announcement-2-03jun09-en.htm>
 - .org & .gov are signed, and will start signing the delegations "soon" :
<http://www.ripe.net/ripe/maillists/archives/dns-wg/2009/msg00063.html>



The current Internet is too small for all of us.

We are running out of IPv4 addresses. There is only ~30 /8 IPv4 blocks left in IANA free pool. We've been using them globally at the rate of 1 /8 per month.

That gives us about 2 more years to deploy IPv6.

The main advantage of IPv6 addresses is that there is more of them.

That enables for the growth, which is very important for both networks and dinosaurs.

There are other methods to connect more and more users, like NAT and super-size NAT, but IPv6 also enables the preservation of End-to-End principle.



At the same time as the perceived need to move to IPv6, there are also many obstacles to IPv6 deployment.

One of them is usually referred to as “the dinosaur and the egg problem”:

- There is no customer demand because there are no IPv6 services available.
- But the service providers (ISPs, vendors, content providers...) are not moving to IPv6 because there is no-one using it yet.

Be the first one to break that vicious circle!

Here are some numbers:

Country	LIRs	IPv4	PI-IPv4	ASN	IPv6 (ipv6/ipv4)
Ireland	76	138	82	120	23 (~1/3)
Hungary	77	176	83	214	14(~1/6)
UK710	1450	2209	102	163	(~1/4)

Get your IPv6 now!



Requirements for IPv6:

- PA Allocation

- Be an LIR
- Have a plan to deploy IPv6
- Announce your allocation as one prefix (must not de-aggregate)

(policy proposal to change this: Removing Routing Requirements from the IPv6 Address Allocation Policy:

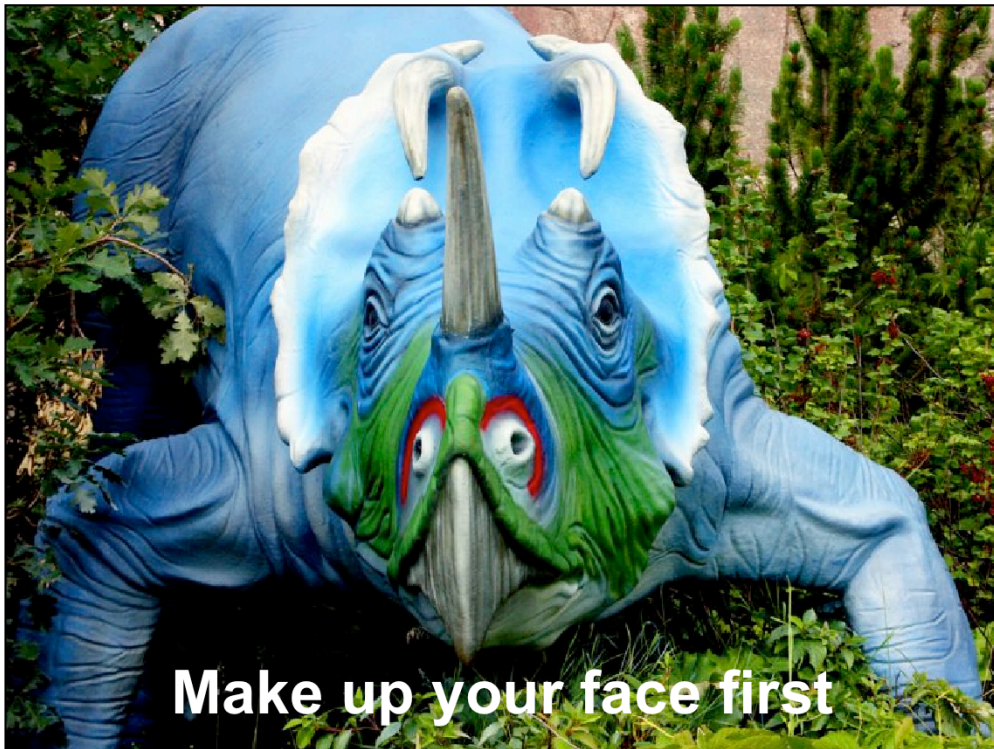
<http://www.ripe.net/ripe/policies/proposals/2009-06.html>)

- You will get /32 default allocation
- You can make /48 or /56 assignments to End Users
- LIRs can also make sub-allocations to other ISPs or big customers

- PI assignment

- You can NOT be an LIR
- Policy proposal to change this: "IPv6 Provider Independent (PI) Assignments for LIRs"
- <http://www.ripe.net/ripe/policies/proposals/2009-08.html>
- You'll get /48

•LIR assignment & Anycast - similar as PI



To quote Randy Bush, in his video interview: "Make up your face first".

Enable IPv6 on external services first:

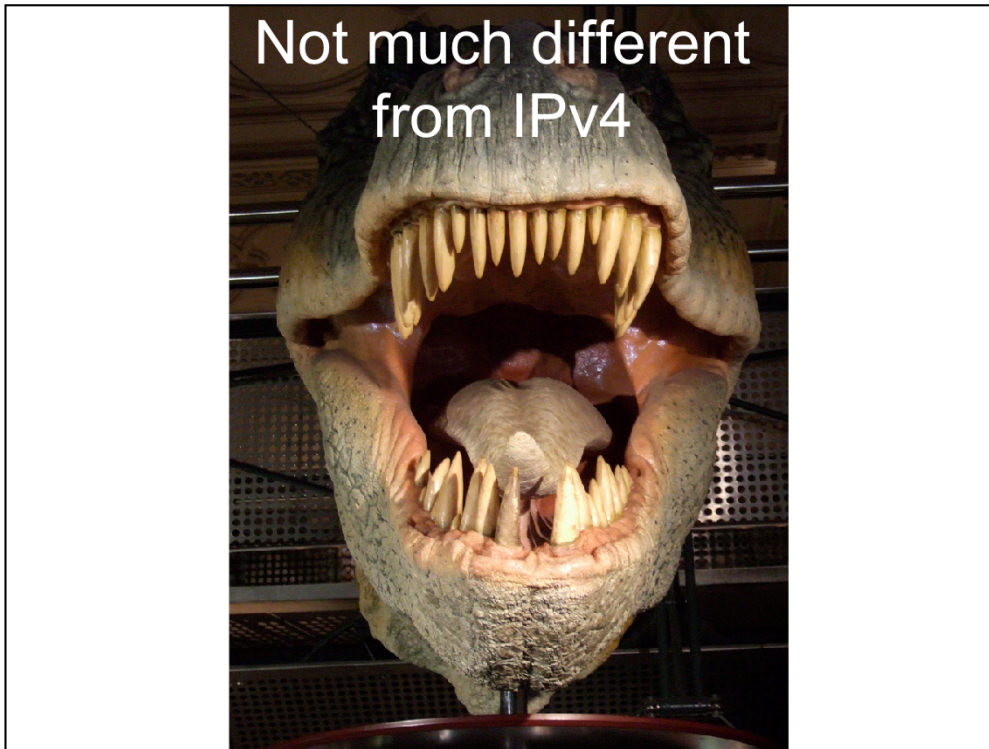
- **routers**
- **Web page**
- **email**
- **DNS**

Or, as Andy Davidson said it: "start from the edge, and work in".



IPv4-only and IPv6-only hosts can not talk to each other.

For the next 5-10-20 years, we will have a transition period: a Dual-Stack Internet.



Quotes from videos and presentations about IPv6:

“It’s not rocket science”

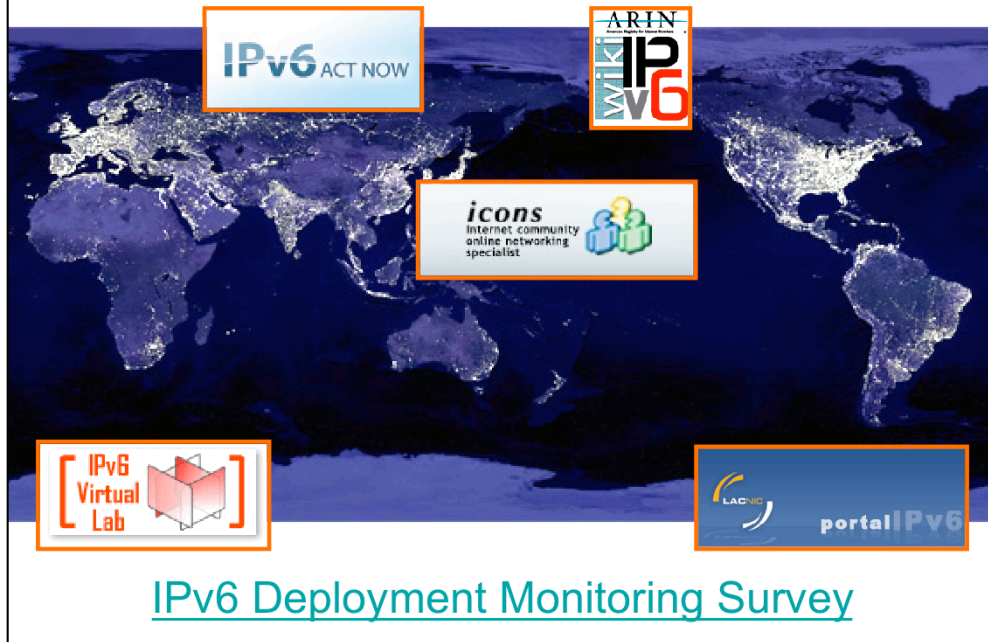
“96 more bits, no magic”

And, as a first female native-IPv6 customer of xs4all in Holland , I can say that it “just works”!

The current deployment figures tell the opposite:

- Global routing table size ratio is 0.5%
- Google measured traffic ratio is 0.25%

RIR IPv6 initiatives



Education and information from RIRs:

<http://www.ipv6actnow.org/>

<http://getipv6.info>

<http://www.afrinic.net/projects/cvl.htm>

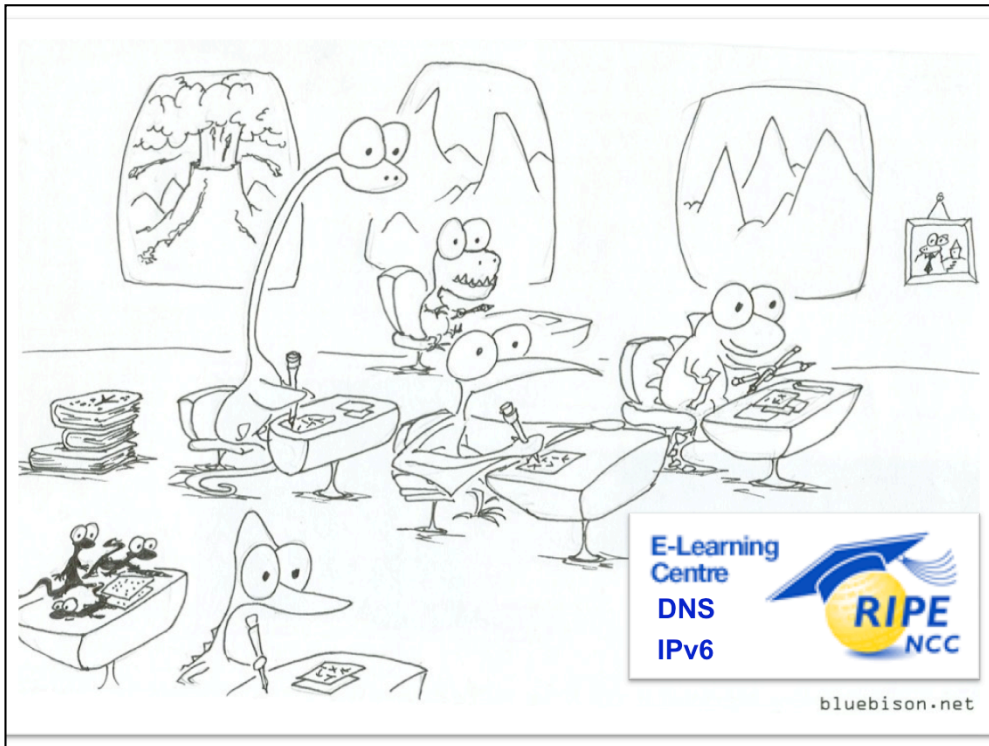
<http://portalipv6.lacnic.net/en>

<http://icons.apnic.net/display/IPv6/Home>

[IPv6 Deployment Monitoring Survey](#)

<http://is-nri.com/take/?i=150597&h=1GwWe3dXXMcPrRrOw5s2yg>

Take part in the forum @ IPv6ActNow.org



RIPE NCC courses: LIR, Routing Registry & tools
<http://www.ripe.net/training/>

New: starting in July – IPv6 for LIRs course!
<http://www.ripe.net/training/ipv6/>

In addition to that: video testimonials!
<http://www.youtube.com/user/RIPENCC>
&
<http://IPv6ActNow.org/video/>

RIPE NCC E-learning: RIPE Database, PDP, NRO
<http://www.ripe.net/training/e-learning/>
New: DNS basics; soon: DNSSEC



RIPE Policy Development Process:

Open to anyone

“Address Policy Working Group”

Also: Database, Routing, DNS, IEX, etc

<http://www.ripe.net/ripe/policies/>

In addition to the IPv6 policies already mentioned, selection of current policies being discussed:

- PI Assignment Size
- IPv4 Allocation and Assignments to Facilitate IPv6 Deployment
- Run Out Fairly
- Use of Final /8
- Ensuring Efficient Use of Historical IPv4 Resources



RIPE NCC Members-only:

1) LIRs must decide which “Independent Resources” to keep:

- for LIRs
- for their End Users,
- or not their customer any more.

2) Discuss on Members-Discuss @ripe.net

(un)subscribe through LIRPortal

Web archive: <http://www.ripe.net/maillists/ncc-archives/members-discuss/2009/index.html>

Proposed changes in Charging Scheme 2010

- Independent resources: 50 Euro per year
 - For each assignment, not connected with size
- Only PA allocations (IPv4, IPv6) contribute to billing category

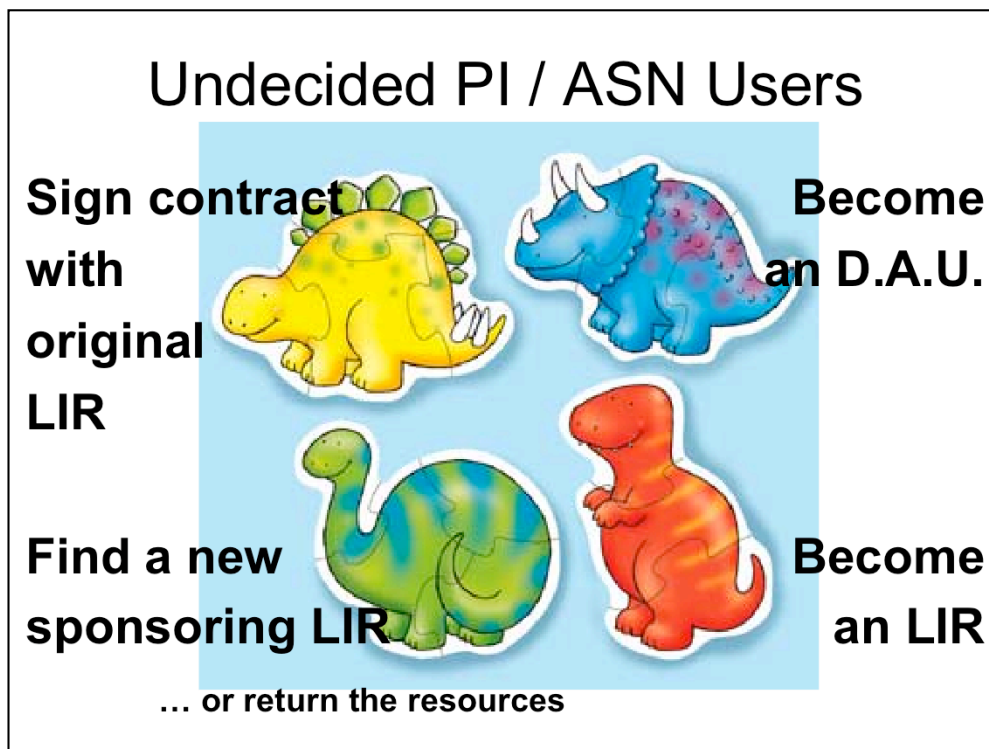
Also proposed: electronic voting for membership

3) Certification project in beta-2 to be released soon:

<http://www.youtube.com/watch?v=q6TBQr2Spw8>

Available through LIRPortal to members only.

<http://www.youtube.com/watch?v=urYCIC4IOFc>



Independent Resources Users need to decide...

According to the policy proposal "2007-01", approved in 2008 , contract is required for every Independent Resource.

Phase one was that RIPE NCC was requiring contract for all the new requests for Independent Resources in 2008.

Phase two is that all the existing holders will have to take some actions regarding their resources (5 options, see slide).

Contract can be between End User and any so-called sponsoring LIR (old, new),
 Or: between End User and the RIPE NCC
 (so-called Direct Assignment User, different from an LIR in that that DAUs are not members of the RIPE NCC).

Example of the contract:

<http://www.ripe.net/membership/lir-end-user-agreement.html>

Policy:

<http://www.ripe.net/ripe/docs/contract-req.html>

<http://www.ripe.net/membership/lir-end-user-requirements.html>

FAQ:

<http://www.ripe.net/info/faq/rs/independent-resources.html>