Headlines

IPv6

Neow

New network

for new traffic

and new usage

addresses


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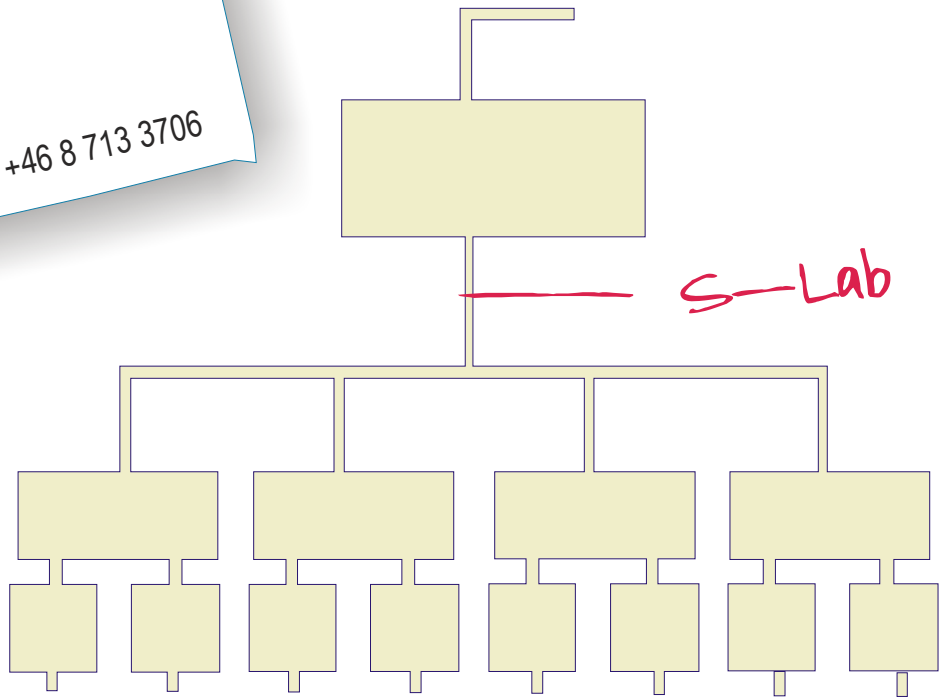

S-Lab

Skanova

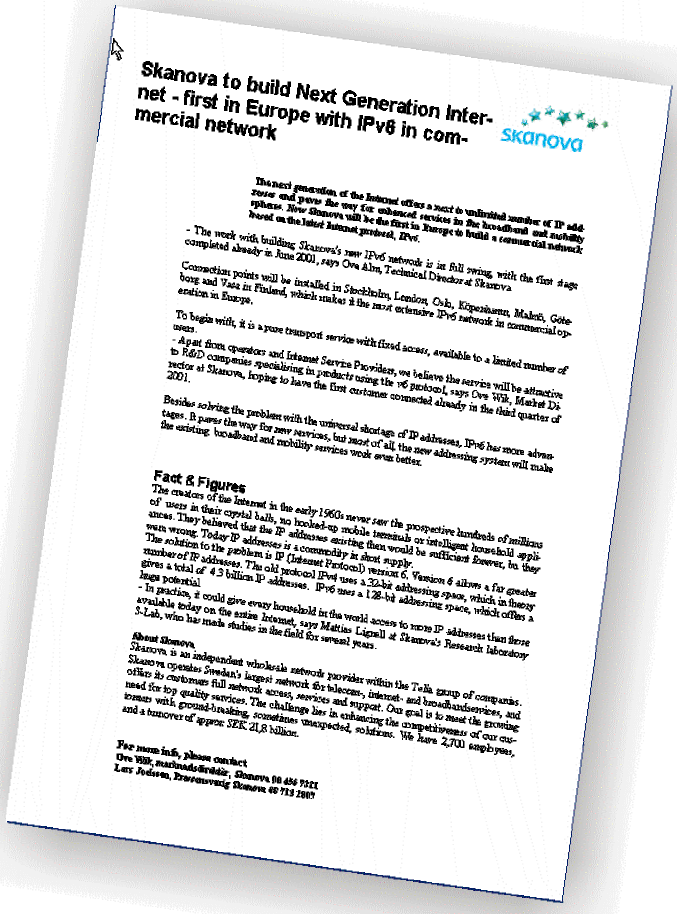
Pressrelease

Now

Nordic region

Core

~~fixed~~ access



Skanova to build Next Generation Internet - first in Europe with IPv6 in commercial network

The next generation of the Internet offers a next to unlimited number of IP addresses and paves the way for enhanced services in the broadband and mobility spheres. Now Skanova will be the first in Europe to build a commercial network based on the latest Internet protocol, IPv6.

- The work with building Skanova's new IPv6 network is in full swing, with the first stage completed already in June 2001, says Ove Alm, Technical Director at Skanova

Connection points will be installed in Stockholm, London, Oslo, Köpenhamn, Malmö, Göteborg and Vasa in Finland, which makes it the most extensive IPv6 network in commercial operation in Europe.

To begin with, it is a pure transport service with fixed access, available to a limited number of users.

- Apart from operators and Internet Service Providers, we believe the service will be attractive to R&D companies specialising in products using the v6 protocol, says Ove Wik, Market Director at Skanova, hoping to have the first customer connected already in the third quarter of 2001.

Besides solving the problem with the universal shortage of IP addresses, IPv6 has more advantages. It paves the way for new services, but most of all, the new addressing system will make the existing broadband and mobility services work even better.

Fact & Figures

The creators of the Internet in the early 1960s never saw the prospective hundreds of millions of users in their crystal balls, no hooked-up mobile terminals or intelligent household appliances. They believed that the IP addresses existing then would be sufficient forever, bu they were wrong. Today IP addresses is a commodity in short supply.
The solution to the problem is IP (Internet Protocol) version 6. Version 6 allows a far greater number of IP addresses. The old protocol IPv4 uses a 32-bit addressing space, which in theory gives a total of 4.3 billion IP addresses. IPv6 uses a 128-bit addressing space, which offers a huge potential
- In practice, it could give every household in the world access to more IP addresses than those available today on the entire Internet, says Mattias Lignell at Skanova's Research laboratory S-Lab, who has made studies in the field for several years.

About Skanova
Skanova is an independent wholesale network provider within the Telia group of companies. Skanova operates Sweden's largest network for telecom-, internet- and broadbandservices, and offers its customers full network access, services and support. Our goal is to meet the growing need for top quality services. The challenge lies in enhancing the competitiveness of our customers with ground-breaking, sometimes unexpected, solutions. We have 2,700 employees, and a turnover of approx SEK 21,8 billion.

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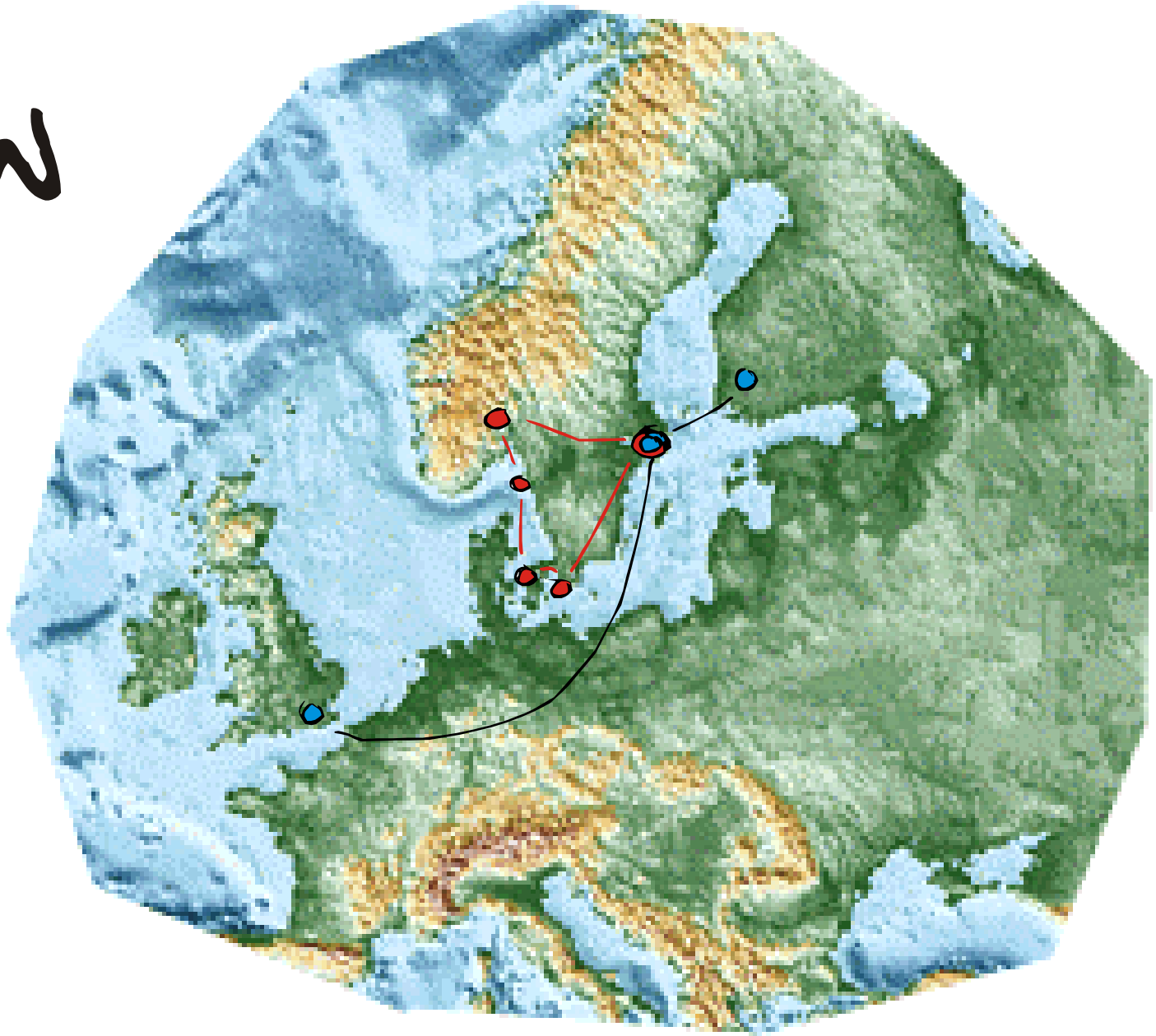
Now



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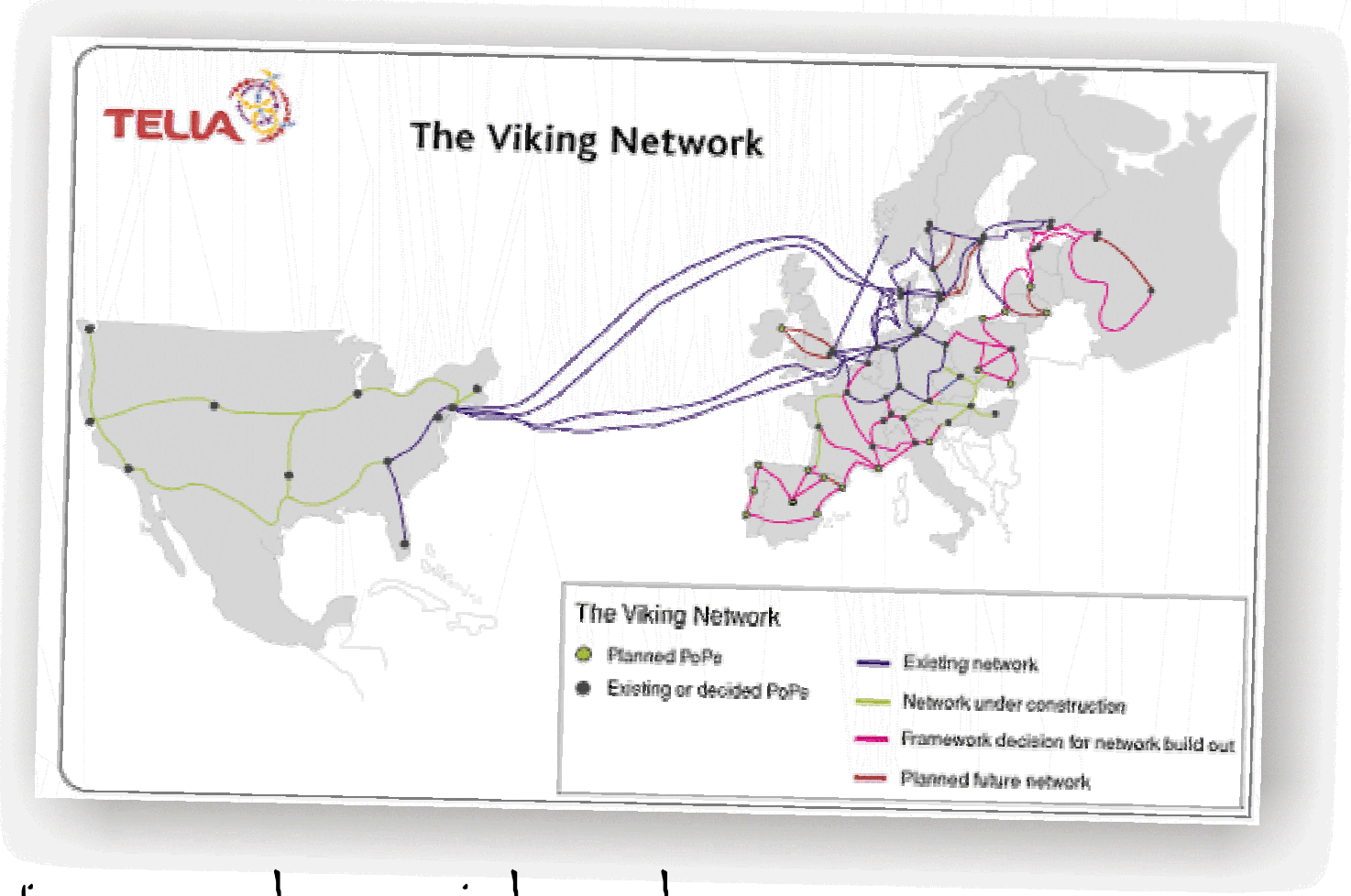
and next ...



Depending on cutomer interest
short lead times

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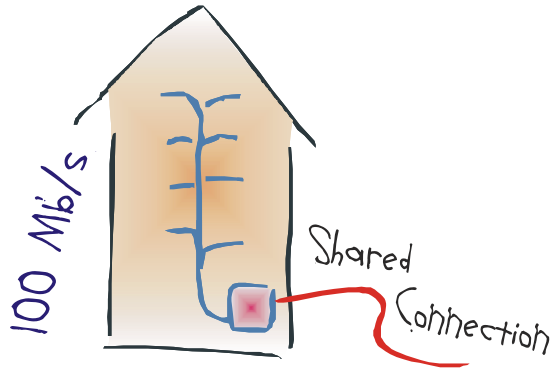
What's cooking — So .. why IPv6 ?

Public Broadband Access



Always on
"Real networks", real addresses
— no peep holes

New usage patterns — e.g. P2P
Drastically higher volumes
— new business cases
— new network cases

Easy way out — a new network

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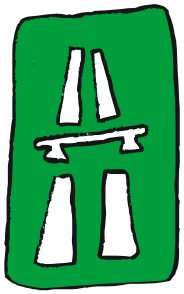
options:

1: Complicate first — make it easier later if possible



2: Easy/simple to start – complicate than if necessary

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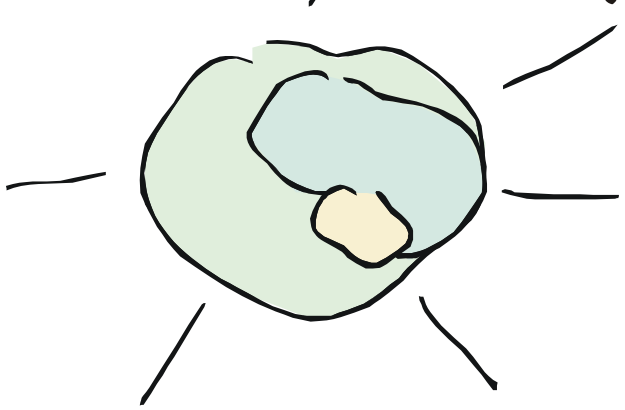
Why a new network

Integration/overlay ..

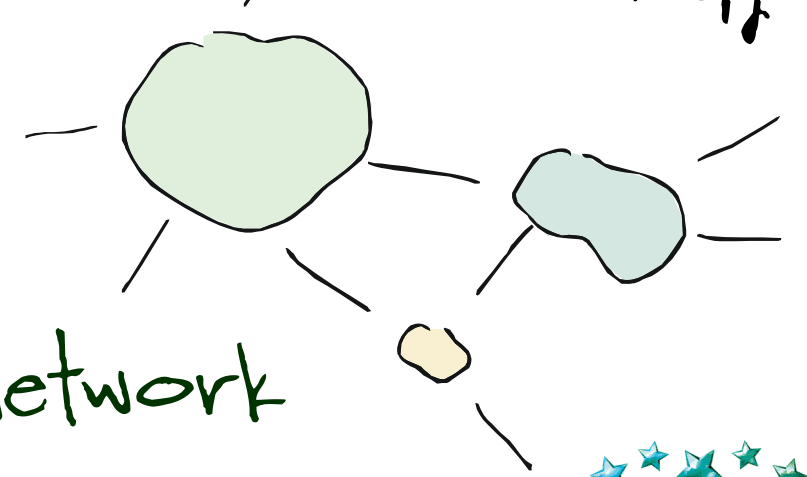


$(x+y+z)! >> x!+y!+z!$

Many small problems are easier to handle — than one big

- complexitywise
- dimensioningwise
- managementswise
- retirementwise

.. or alternatively



Easy way out — a new network

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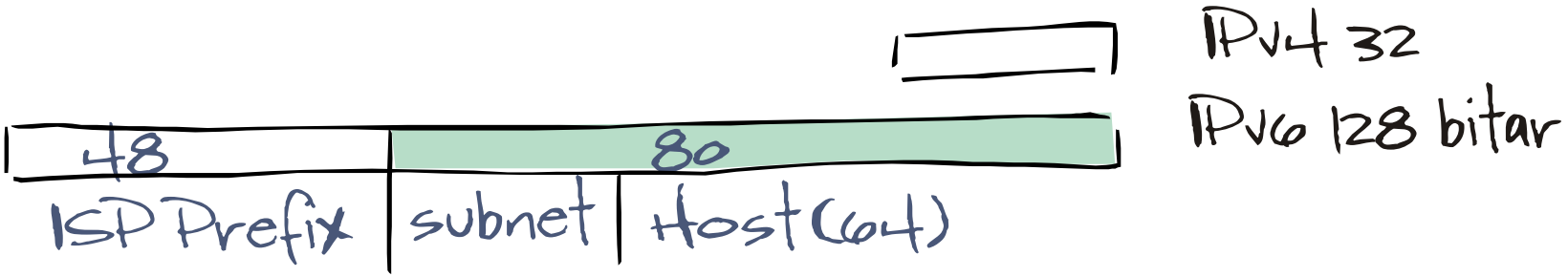
.. but still, why IPv6

IPv6 ::= Addresses

Auto config
Mobility
Sec
Xyz

Bonuses

Lots of addresses, real addresses
to residential users



IPv4 32
IPv6 128 bitar

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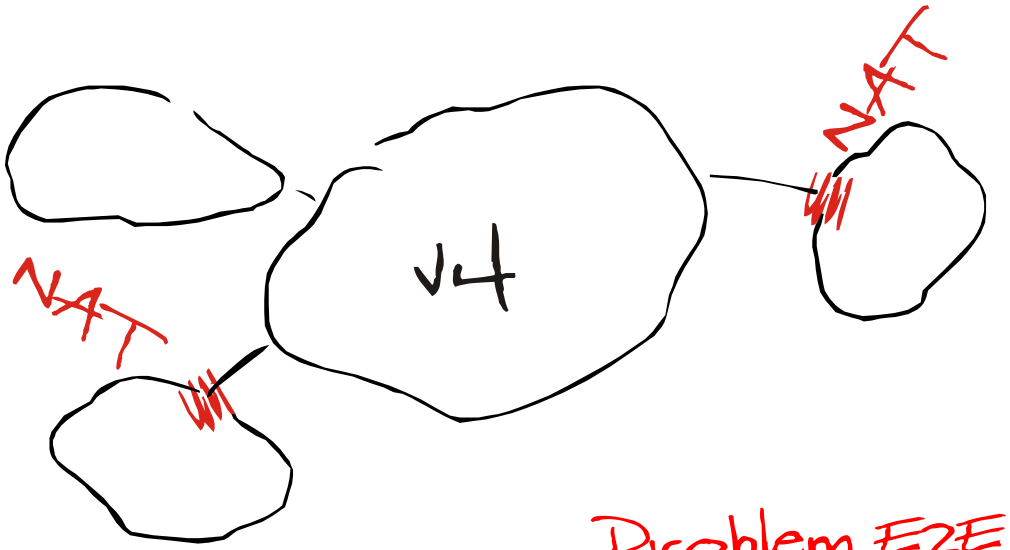
NAT as an alternative



Problem E2E

Adds complexity —
req advanced conf

May block future services

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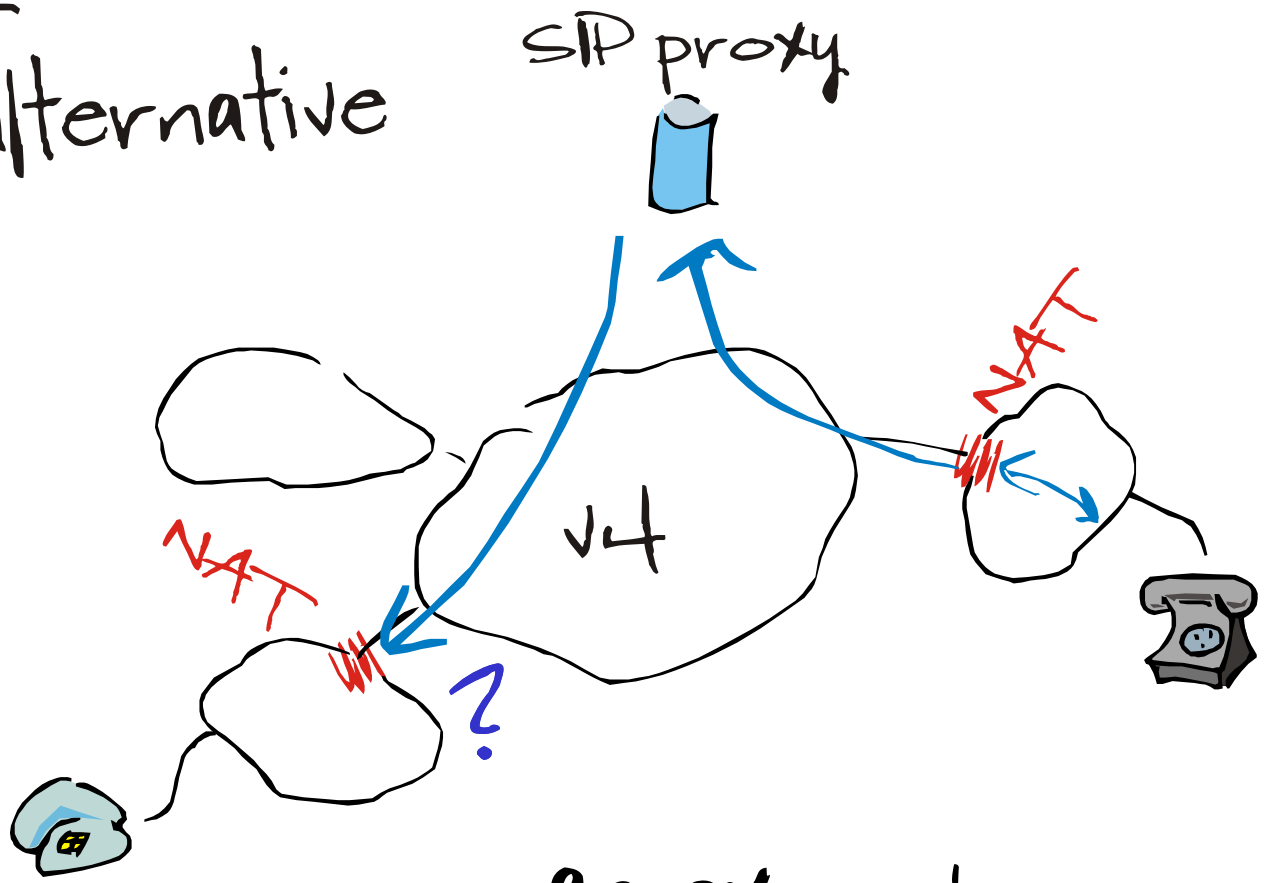
NAT as an alternative



an example IP—Telephony

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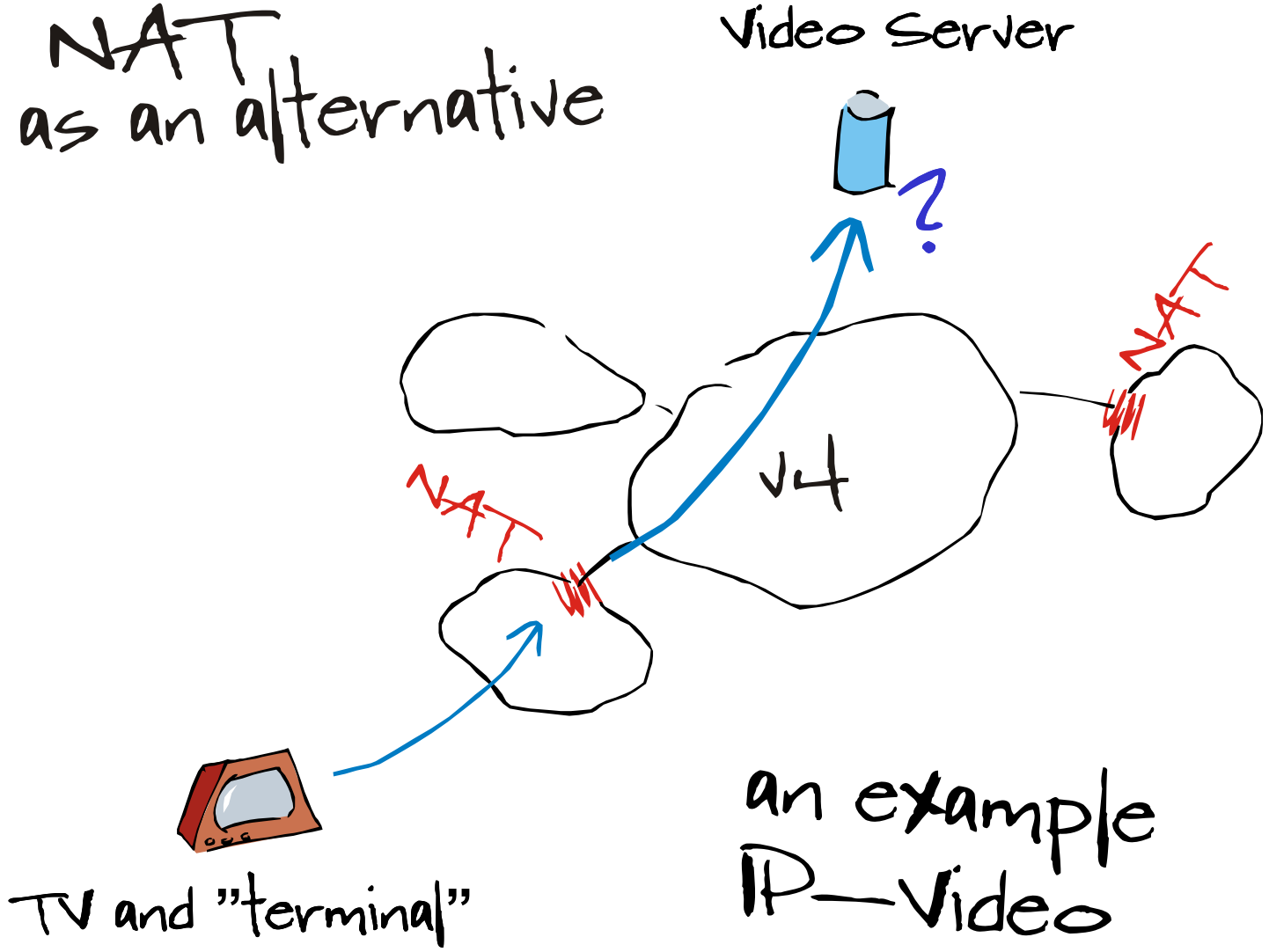
NAT as an alternative



TV and "terminal"

an example IP—Video

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Drivers

Different for core and access

Core	Requires a new architecture soo, why not v6
Access	addresses and addresses, .. "space to thrive"

Now, how to .?

(we have v4 and are going v6)

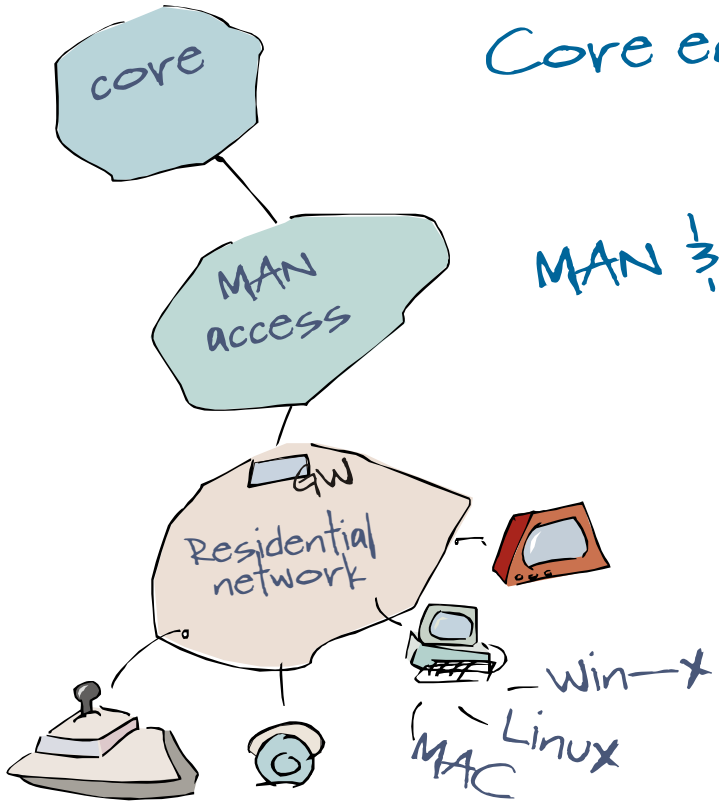
core — Dual stack, 6 over 4, 4 over 6, Separate nw, (core—less)...

access — Dual .., 6 over 4, etc, etc ?

Native is simpler

Is it time ..
is technology ripe

enough standard around



Core equipm — emerging

MAN ⅓ Access emerging

Residential networks, software And equipment less available

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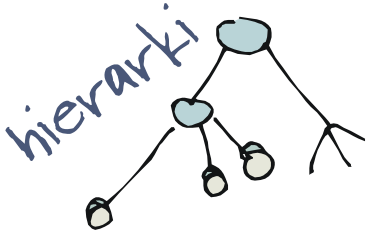
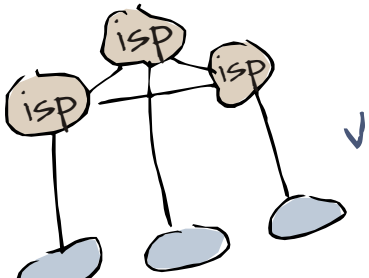
Some problems/opportunities

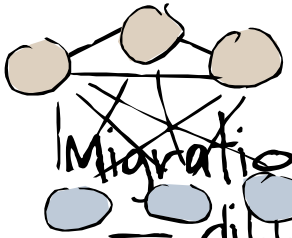


v.s.

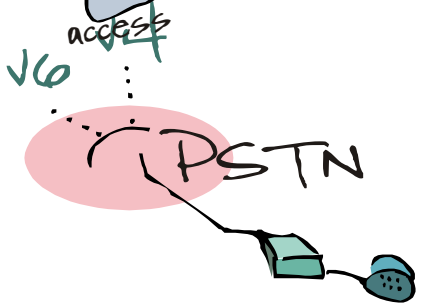
v4—legacy — structure assumed hierarcical models client—server, multihoming

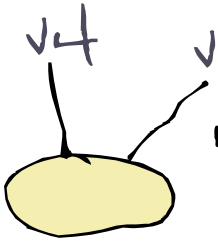


vs



Migration strategies for access/periphery
— different for dial up and fixed access
— grows by time





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Soo .. what's in it 4 us

Overcome the catch—22

Show supplier that it is now for real

Help our customers to get going

We want to be in the lead

Start with core – T—service
"broadband—core"

Nordic corner — 1

Europe — 2

The world — 3

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