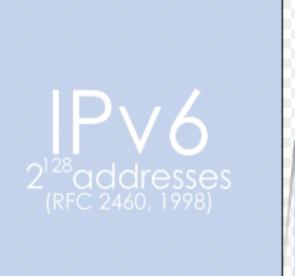
RETAIL ISP DEPLOYMENT OF IPV6 IN AUSTRALIA

Simon Hackett Internode



ITS ALL ABOUT ADDRESS SPACE



A diagram demonstrating the massive growth in address space under each protocol.

Each cascading block is a magnification of a tiny area in the preceding block, represented by a black square.

Image is to scale, except the black area is enlarged for ease of viewing

PV4
2³²addresses
(RFC 791, 1981)

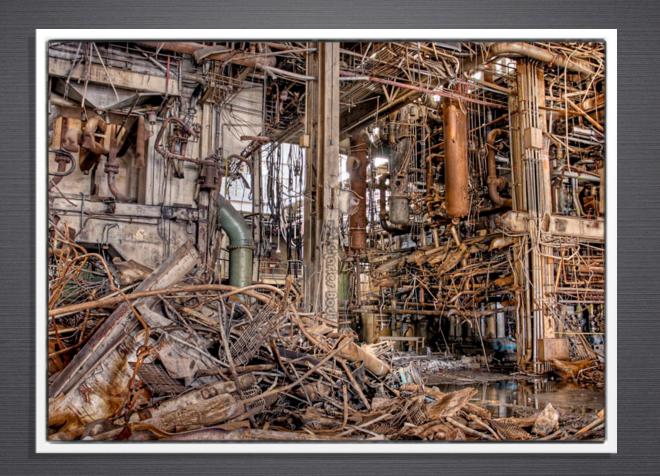
RFC 675 2⁸ host addresses 2⁴ net addresses (1974)





Most users don't understand IPv6





THEY JUST WANT THEIR INTERWEB TO WORK

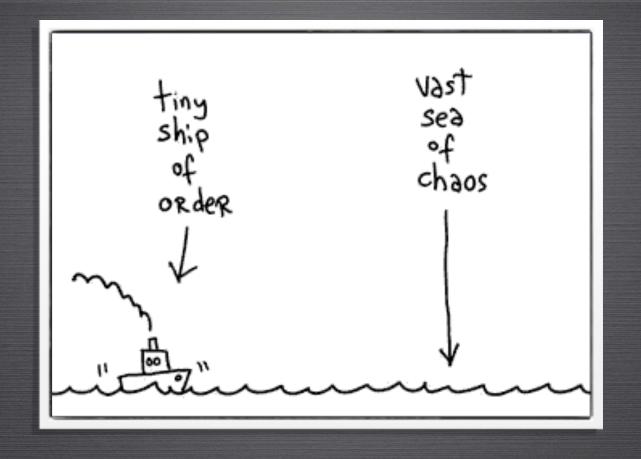


BUT <u>WE</u> ALL UNDERSTAND IPV6

(DON'T WE?)

IF WE GET
THIS RIGHT,
NOBODY
NOTICES!





THE TRANSITION SHOULD BE TRANSPARENT



HOW FAR ADVANCED ARE WE?

"With the protocol mostly nailed down, the doors are open for rapid implementation and deployment by vendors"

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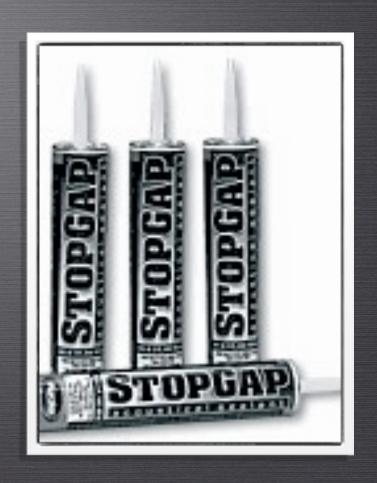
I WROTE THIS IN A FEATURED MAGAZINE ARTICLE...

"With the protocol mostly nailed down, the doors are open for rapid implementation and deployment by vendors"

I WROTE THIS IN A FEATURED MAGAZINE ARTICLE...

...IN <u>1995</u>

STOPGAP
APPROACHES
(LIKE NAT)
WORK ALMOST
TOO WELL!



IPv4 Exhaustion Counter

▼Present status

Reserver blocks (IANA)

14%

36/256 blocks

Until X-day (estimation)

806 days

Num of IPv4 Address

598,939,688

øNetcore

WHAT IF WE AREN'T READY WHEN IT MATTERS?



▼Present status

Reserver blocks (IANA)

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WHAT IF WE AREN'T READY WHEN IT MATTERS?

TRADING IPV4 ADDRESSES

IPV4 VIA NAT - HOME

IPV4 NATIVE - SOHO/BIZ



IS IPV6 A PREMIUM SERVICE?



IS IPV6 A PREMIUM SERVICE?

No.

No capacity to command EXTRA INCOME FROM DUAL STACK IP SERVICES

INTERNODE IPV6 ROADMAP

AVAILABLE NOW: NATIVE IPV6

NATIONAL NETWORK BACKBONE
INTERNATIONAL TRANSIT & PEERING
CUSTOMER LEASED LINE SERVICES
CUSTOMER CO-LOCATED SERVERS
... AND THIS EVENT!



AVAILABLE NOW: TUNNELLED IPV6

ACCESS NATIONALLY (FOR GEEKS)

HEXAGO TUNNEL SERVER

6TO4 GATEWAY

PLANNED FOR 2009: NATIVE IPV6 OVER PPP (AUTOMATIC DUAL STACK)

ADSL SERVICES
WIRELESS DSL SERVICES
EVEN DIALUP

Integrating IPv6 into Your IPv4 Network



WE HAVE THE
NECESSARY
INDUSTRY
EXPERTISE

O'REILLY'

Silvia Hagen

WE STILL
HAVE ONE
EXTERNAL
BARRIER





BUT: WE'RE READY.



WE HOPE OTHERS WILL JOIN US IN 2009

Thanks!

http://ipv6.internode.on.net