

2002 AUSTRALIA AND NEW ZEALAND INTERNET AWARDS

ANZIA

IPv6 WINNER
INTERNODE

LAUDA
AU DOMAIN ADMINISTRATION LTD

InternetNZ

IPV6 SUMMIT 2012

LEADING THE WAY: INTERNODE'S IPV6 DEPLOYMENT AND DELIVERY

(A GOOD NEWS STORY)

SIMON HACKETT
FOUNDER, INTERNODE





WE ALL UNDERSTAND THE REASON IPV6 EXISTS

(IPV4 ADDRESS SPACE EXHAUSTION)



BUT: INTERNET USERS DON'T CARE ABOUT IP ADDRESSING!
(THEY CARE ABOUT ACCESS TO NAMED SERVICES)



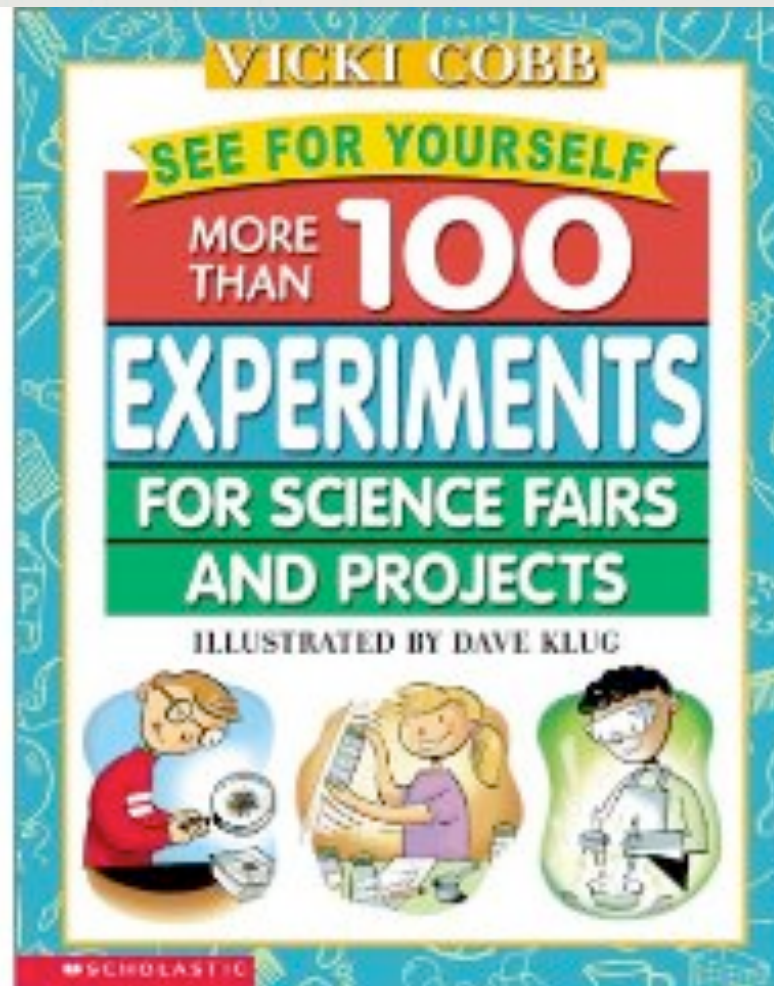
THE PRESENCE OF IPV6 SHOULD BE INVISIBLE TO END USERS
DUAL STACK IPV4/IPV6 NATIVE IS SIMPLY 'INTERNET ACCESS DONE RIGHT'

A LONG TIME AGO...

A BRIEF HISTORY OF INTERNODE'S IPV6 JOURNEY

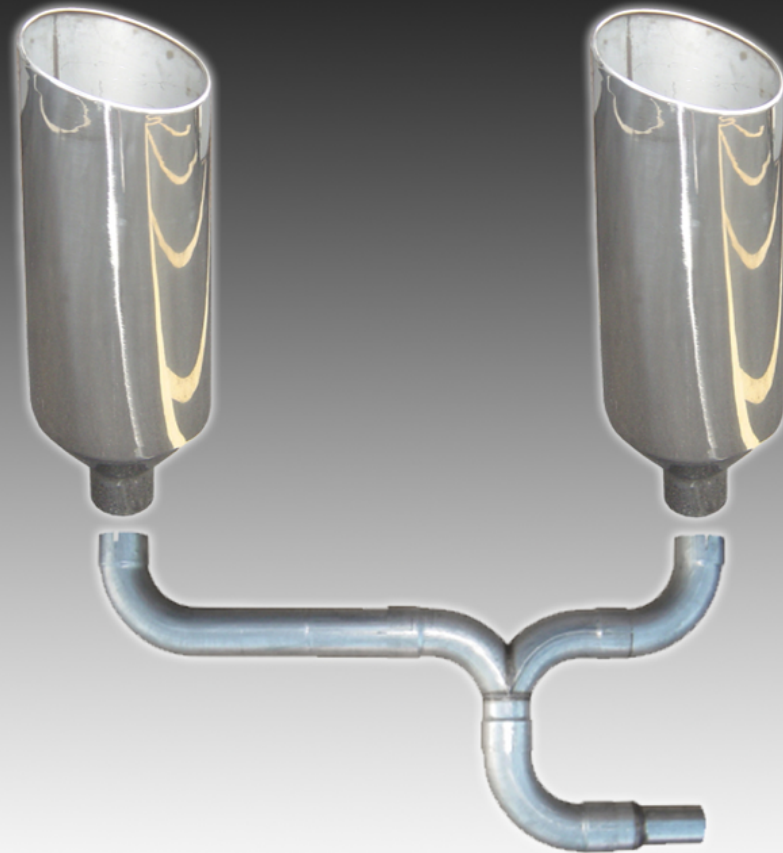


THE GEEK ON THE RIGHT DECIDED THAT INTERNODE
WOULD BECOME LEADERS IN IPV6 DEPLOYMENT IN AUSTRALIA



INTERNODE OBTAINED AN IPV6 ADDRESS ALLOCATION, CONNECTED UP,
AND STARTED LEARNING HOW IPV6 WORKS

2008



THE INTERNODE NATIONAL NETWORK IS DUAL STACK ENABLED.
NATIVE IPV6 ACCESS OFFERED TO FIXED LINE, ETHERNET PORT
AND DATA CENTRE COLOCATION CUSTOMERS

2009

News & Media



Internode has invited customers to participate in an Australia-first technical trial of IPv6, running natively on its national ADSL broadband network.

Australia-first native ADSL IPv6 access trial

06-11-2009

INTERNODE LAUNCHES NATIONAL IPV6 ACCESS TRIAL
OFFERING OPT-IN IPV6 DUAL STACK TO ALL CUSTOMERS

I have no idea what you're talking about...



...so here's a bunny with a pancake on its head.

MOST CUSTOMERS RESPONDED ROUGHLY LIKE THIS

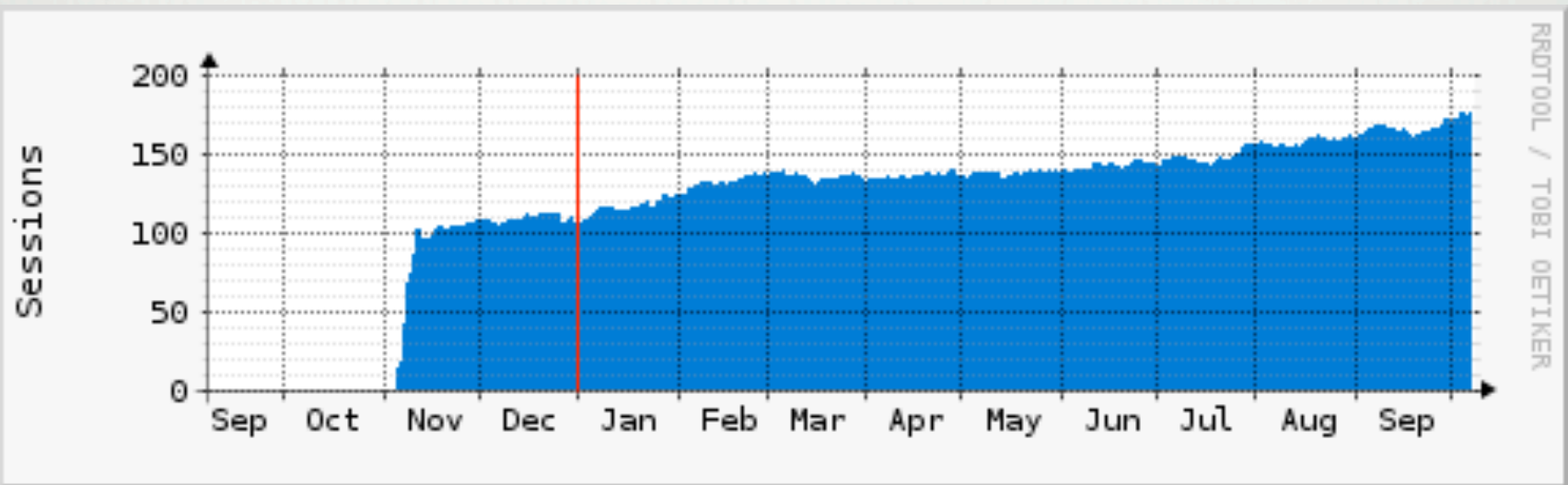
HOWEVER

SOME OF OUR
CUSTOMERS
DID ENABLE
IPV6 AND
STARTED
THEIR OWN
LEARNING
PROCESS



LATE 2010

HUNDREDS OF CUSTOMERS ARE USING IPV6



THIS WAS ENOUGH TO LET INTERNODE PROVE OUT OUR SERVICE
(AND START BEATING UP ROUTER VENDORS ABOUT IPV6 BUGS)

MEANTIME, BACK IN THE REAL WORLD
(AND WITHOUT FANFARE)

Nerd.

Pretty Boy.



PRACTICALLY ALL NEW PC OPERATING SYSTEMS GOT UPDATED
TO BE IPV6 READY (AND ENABLED BY DEFAULT)



SMARTPHONE OPERATING SYSTEMS GOT UPDATED FOR IPV6 TOO
(ALSO ENABLED BY DEFAULT)



THERE WAS STILL A MISSING LINK:
MOST CUSTOMER ROUTERS DIDN'T SUPPORT IPV6 (NOT REALLY)



LAUNCH
INTO THE
FUTURE
06.06.12



IN JANUARY 2012 INTERNODE ENABLED IPV6 (BY DEFAULT) THROUGH
ALL BROADBAND ACCESS PATHS, FOR ALL NEW CUSTOMERS

IN THE SAME TIMEFRAME, ALL
ROUTERS SOLD BY
INTERNODE (FINALLY) HAD
WORKING IPV6 STACKS



BY JUNE 2012 ALL NEW ROUTERS
SHIPPED BY INTERNODE
HAD IPV6 ON BY DEFAULT

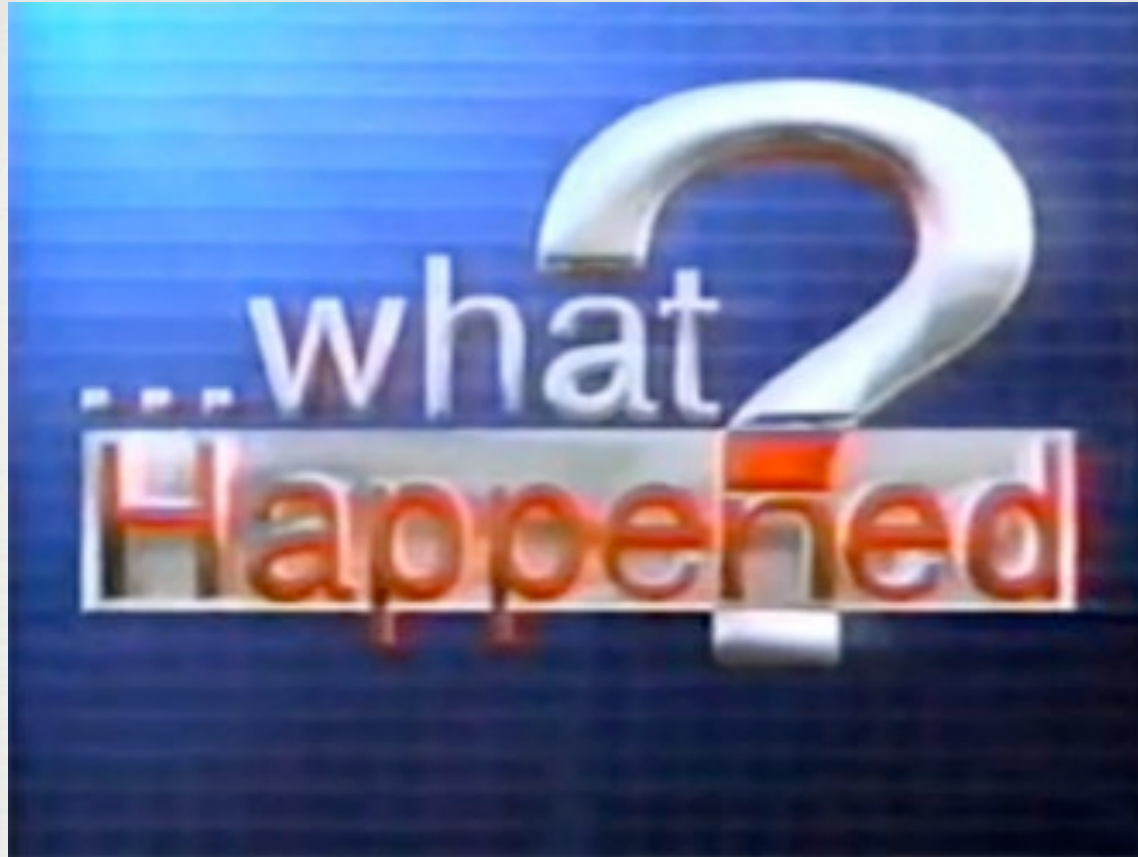


Model	Ethernet Switch	802.11 WIFI	VoIP Phone Ports	USB Ports	Internet VPN	FetchTV Certified	Price
<u>NetComm NB6Plus4</u>	4 x 100Mbps	no	no	no	no	no	<u>\$99</u>
<u>NetComm NB604N-02</u>	4 x 100Mbps	high speed (b+g+n)	no	✓ (file)	no	✓	<u>\$119</u>
<u>Billion 7401VGP-R3</u>	4 x 100Mbps	yes (b+g)	✓ x1	no	no	no	<u>\$139</u>
<u>Billion 7800NL</u>	4 x 100Mbps	high speed (b+g+n)	no	no	no	✓	<u>\$159</u>
<u>Billion 7800N</u>	4 x Gigabit	high speed (b+g+n)	no	no	no	✓	<u>\$199</u>
<u>FRITZ!Box 7270</u>	4 x 100Mbps	high speed (b+g+n)	✓ x2 + DECT	✓ (file/print/3G)	✓	✓	<u>\$249</u> or <u>\$9.95 monthly</u>
<u>FRITZ!Box 7390</u>	4 x Gigabit	high speed dual-band (b+g+n)	✓ x2 + DECT	✓ (2 x file/print/3G)	✓	✓	<u>\$349</u> or <u>\$14.95 monthly</u>

THESE ARE OUR STANDARD ROUTER OFFERINGS TODAY
(ALL WITH IPV6 INCLUDED AND SWITCHED ON)



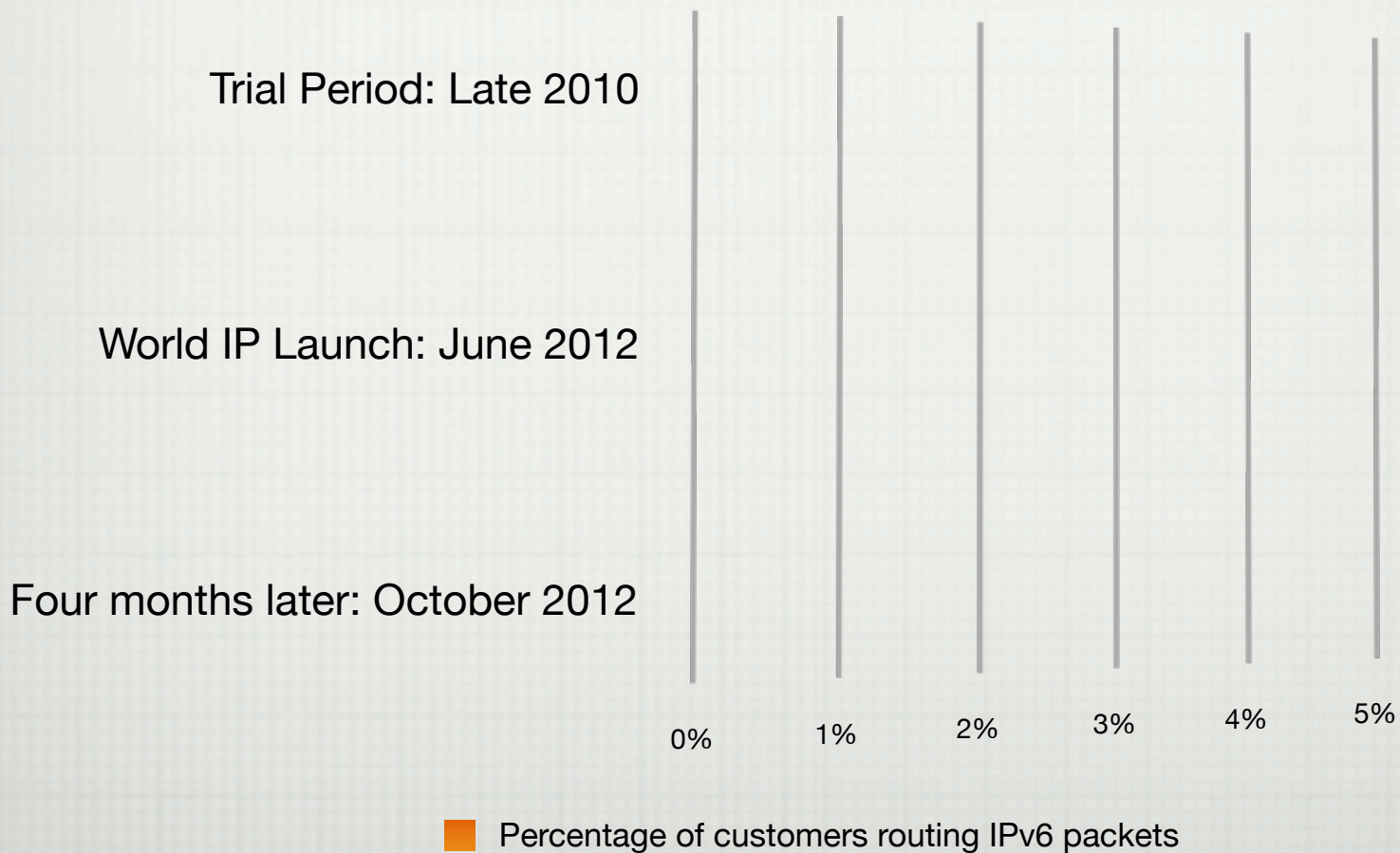
ALL NEW INTERNODE ADSL2+ CONNECTIONS ARE IPV6 ENABLED
ALL NEW INTERNODE NBN CONNECTIONS ARE IPV6 ENABLED



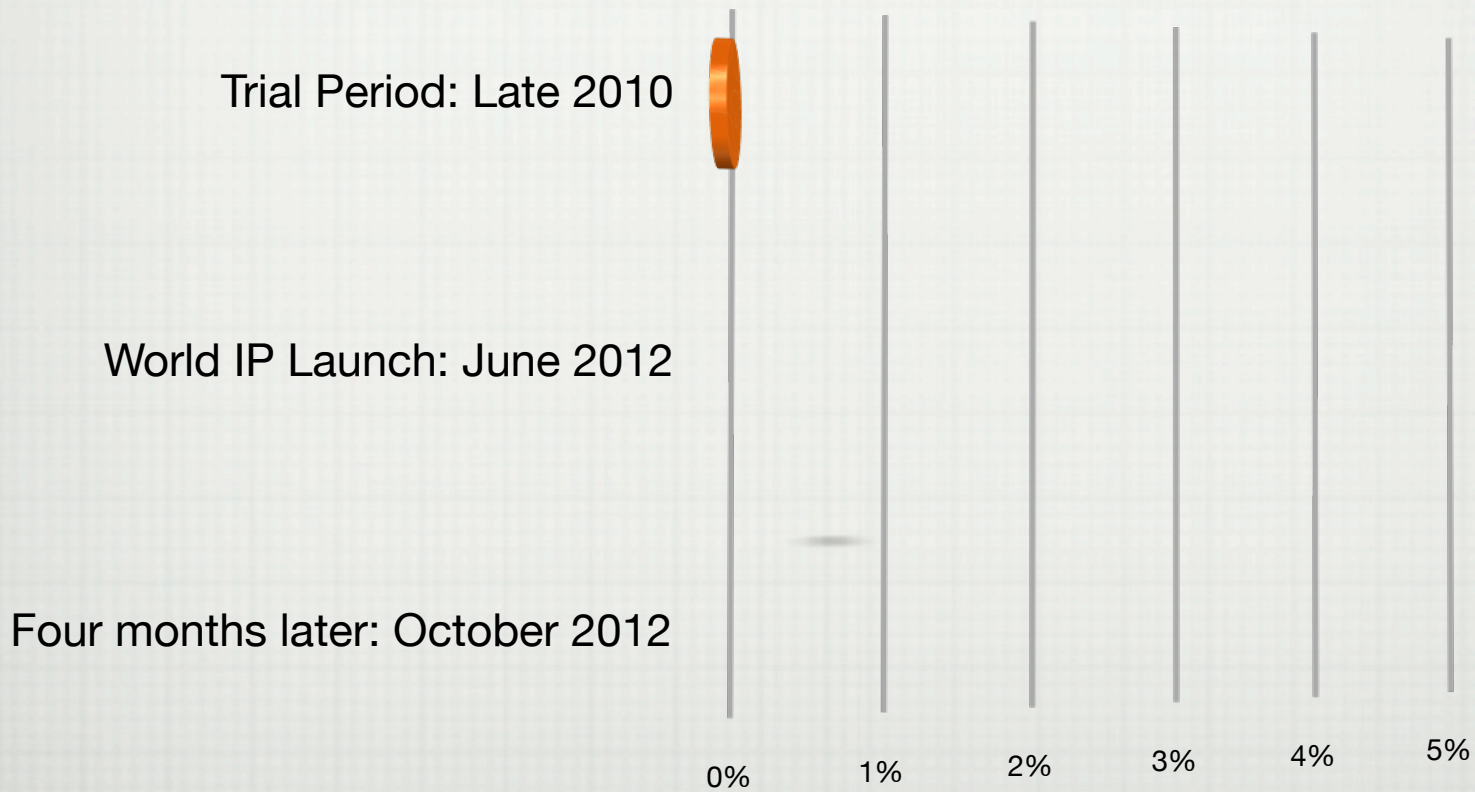
HOW HAVE THESE STEPS IMPACTED INTERNODE IPV6 ADOPTION RATE?

■ Percentage of customers routing IPv6 packets

Internode IPv6 Enabled Customers

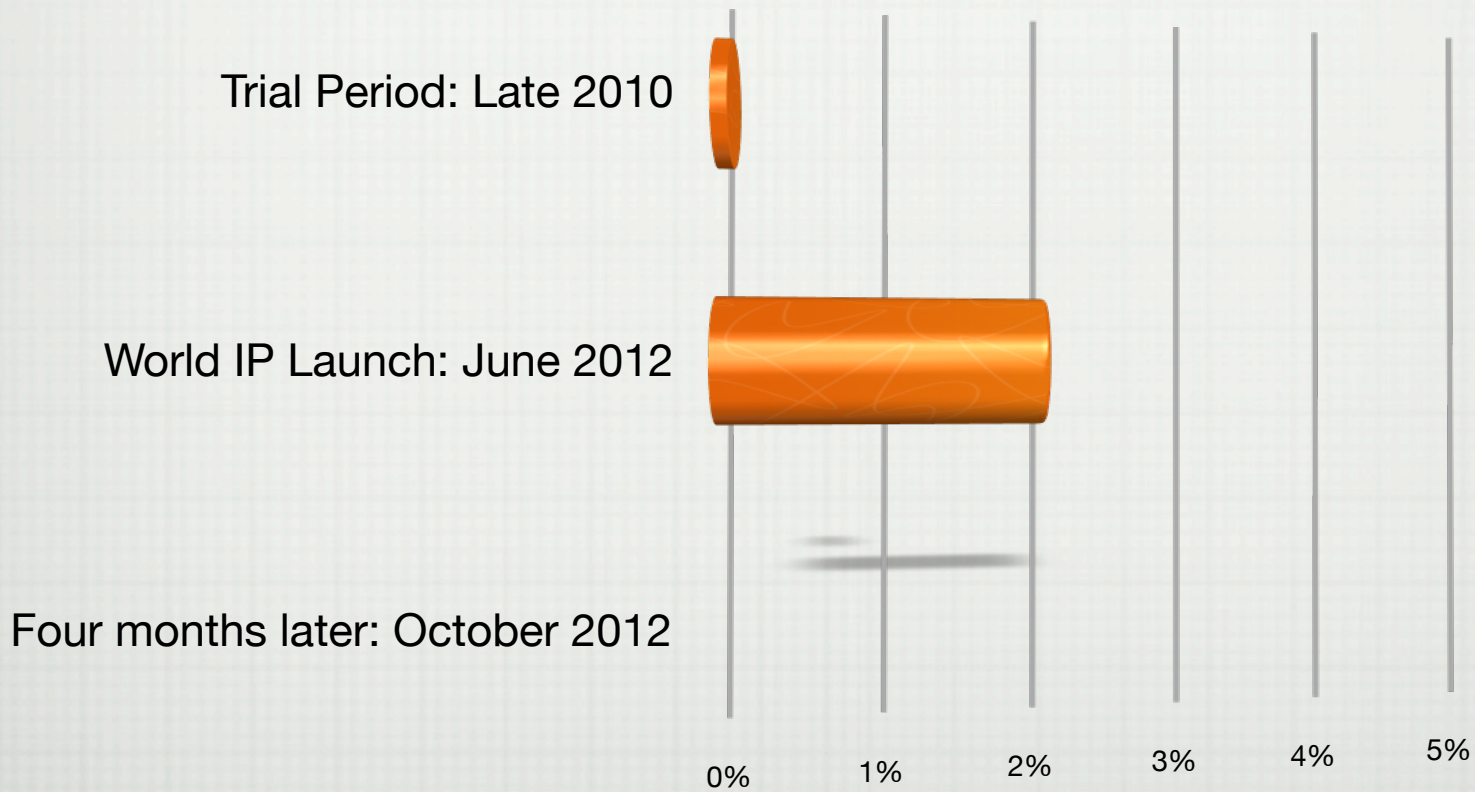


Internode IPv6 Enabled Customers



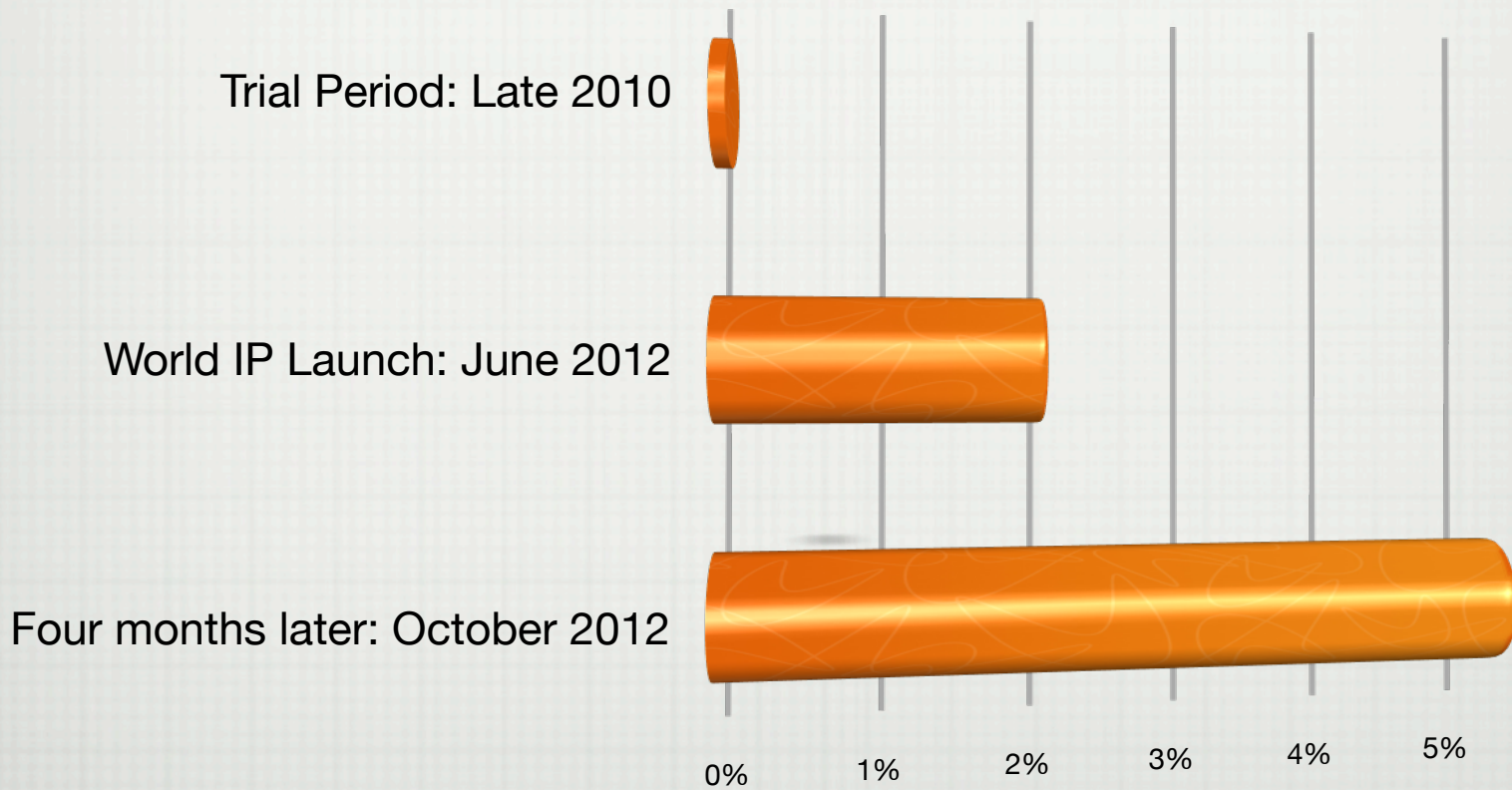
■ Percentage of customers routing IPv6 packets

Internode IPv6 Enabled Customers



Percentage of customers routing IPv6 packets

Internode IPv6 Enabled Customers



Percentage of customers routing IPv6 packets



WHY, OH WHY, AREN'T OTHER ISPS FOLLOWING OUR LEAD??

'SOMEONE ELSE'S PROBLEM'

- ☐ HAVEN'T RUN OUT OF IPV4 ADDRESSES YET
- ☐ ARE IN A SATURATED MARKET (FIXED LINE, 1ST WORLD)

WHAT WILL DRIVE SELF-SUSTAINING TAKE-UP OF IPV6?

- ☐ 1) MOBILE INTERNET ACCESS IN MARKETS WITH RAPIDLY RISING CUSTOMER COUNTS
- ☐ 2) OPERATORS REALISING THAT IPV6-ONLY IS A LOWER COST PATH THAN USING CG-NAT
- ☐ CATALYST FOR A HIGH SCALE IPV6-ONLY MOBILE PLAY
- ☐ GOOGLE, FACEBOOK, TWITTER, YOUTUBE RUN IPV6, MAKING SUCH AN OFFERING 'HIPSTER-FRIENDLY' WITHOUT V4 NOW
- ☐ OTHER CONTENT SITES WILL SCRAMBLE TO ENABLE V6 TO OBTAIN ACCESS TO THESE CUSTOMERS

MEANWHILE

The Cool Factor



INTERNODE HAS THE COOL FACTOR!
AND YOU KNOW WHO TO TELL YOUR FRIENDS TO SIGN UP WITH :)



WWW.INTERNODE.ON.NET/IPV6