# From World IPv6 Day to World IPv6 Launch: This time it's for real

Mat Ford

www.WorldIPv6Launch.org



## World IPv6 Launch 2012

- This time it's for real: 6 June 2012 is the kick-off date
- Regular business operation with IPv6
- "On by default"
- Commercial IPv6 at scale by year-end.





# IPv6 is a "Must Have" Technology

## Connectivity

- No, you cannot have more IPv4 addresses
- Even if you could, connecting the next 4 billion requires something more than IPv4 can ever do

#### **Innovation**

- Additional infrastructure inhibits innovation through operational and technological constraints
- IPv6 enables an open, fully connected Internet
- Permission-free innovation is a key part of what makes the Internet the network that it is – where will the next Google or Facebook come from?



# Where are we coming from?



# What was World IPv6 Day?

www.worldipv6day.org

For 24 hours on 8 June 2011 (00h00-23h59 UTC) Facebook, Google, Yahoo! and more than 1000 other websites turned on IPv6 access on their "front door"

#### Goals:

- Motivate Internet service providers, hardware makers, operating system vendors, Web companies and others to prepare their services for IPv6
- Understand what issues still need to be addressed to ensure a successful transition to IPv6 as IPv4 addresses run out.

While there have been similar notable efforts, World IPv6 Day was the first global, real-world "test-flight" of IPv6—and the largest ever.



# Motivations for the World IPv6 Day Event – and Impacts

- Breaking the chicken-and-egg problem of IPv6 deployment networks clearly see that content is getting there
- Improving IPv6 connectivity by understanding outstanding issues faced by a small percentage of users (but significant numbers for large content providers) – more fixes are in flight
- Providing a target date for already planned IPv6 rollouts people definitely responded to having a date
- Spurring organizations to create a plan for rolling out IPv6 being like Google, Facebook, and Yahoo! is important
- Catalyzing the kind of collaboration that the Internet has relied upon through its history – people noticed that the Internet industry came together to advance something that is important for the overall long term health of the Internet



# What happened?

- Nothing! (this was terrific)
- Provided a basis for the world to think about IPv6, this can be done, won't break.
- Traffic numbers were low globally (< 1%), but in France >3% of traffic was IPv6, due to one IPv6 enabled network (Free)
  - this demonstrates that if you enable your network with IPv6, it will get used with IPv6
  - this will be true wherever IPv6 is turned up.
- Only isolated issues reported



# **World IPv6 Day Impacts**

- Have heard other industries say: "Well, that clearly worked."
- It was collaborative effort, across business boundaries
- What this means for the operator community: content providers are ready; if you provide access over IPv6, increasingly you will have traffic
- World IPv6 Day blew the doors off some preconceptions:
  - that IPv6 isn't doable, and won't be done
  - that industry players can't coordinate
  - we've seen and heard repeated evidence of "changed minds" because of the event



# Where are we going?



### World IPv6 Launch

### www.worldipv6launch.org

#### When?

6 June 2012

#### What?

 IPv6 is part of Regular Business, on by default, no special configuration necessary for anyone anywhere

#### Who?

Access networks, home router vendors, websites from around the world participating, please join – www.worldipv6launch.org

#### Why?

- Acceleration: those already planning to roll-out IPv6 should accelerate their plans
- Adoption: those who don't have plans yet, it's safe now, please start
- Definition: industry leaders are establishing IPv6 as the new normal



## World IPv6 Launch: Access Networks

#### Who?

- ATT, Comcast, Free, Internode, KDDI, Time Warner Cable, XS4ALL
- Additional networks are welcome to join, see: www.worldipv6launch.org

IPv6 becomes part of Regular Business now

- New subscribers get IPv6 on by default after 6 June 2012
  - No user config required
- 1% of visits to IPv6-enabled websites from participating networks is done using IPv6 by 6 June
  - IPv6 usage will depend on IPv6 capabilities of home networks and home equipment, so the enabled customer base should be higher
  - This will be measured by the big participating websites

### World IPv6 Launch: Home Router Vendors

#### Who?

- Cisco, D-Link
- Additional home router vendors are welcome to join, see: www.worldipv6launch.org

## IPv6 becomes part of Regular Business now

- Majority of products shipping with IPv6 on by default
- No user configuration is required to use IPv6
- V6 interoperability verification by UNH-IOL (and others?)



## World IPv6 Launch: Websites

#### Who?

- Facebook, Google, Microsoft Bing, and Yahoo!
- Others are welcomed to join, see: www.worldipv6launch.org
- Akamai and Limelight are enabling their customers who ask for it.

## IPv6 becomes part of Regular Business now

- IPv6 is permanently enabled on the main website
  - No IPv6 specific URLs (www.ipv6.example.com) or mirror sites
- IPv6-enabled users will use IPv6 without extra configuration
- The World IPv6 Launch website will have a reachability dashboard similar to what was used in 2011 for World IPv6 Day



# Joining World IPv6 Launch is a Commitment to **Commercial-grade IPv6**

- Industry leaders are committed
- Aims to encourage additional commitment
- Builds on and makes a significant step up from World IPv6 Day in 2011
  - World IPv6 Day blew the doors off some preconceptions:
    - that IPv6 isn't doable, and won't be done
    - that industry players can't coordinate
    - we've seen and heard repeated evidence of "changed minds" because of the event





Is for realz now. Srsly.



# THIS TIME IT IS FOR REAL 6 JUNE 2012

www.worldipv6launch.org