
IPv6 Lessons Learned

Tales from 6 years on the IPv6 Deployment
Front Lines

Owen DeLong

[owen at akamai.com](mailto:owen@akamai.com)

Plan A: Sex Sells — IPv6 is Sexy!

- While I wish that were true, reality is, not so much.
- Nobody takes you seriously when you say this.
- It doesn't help motivate anyone.



Plan B -- IPv6 is Urgent

- After 20 years, nobody believes this, either.
- People generally don't like being compared to birds.
- Moar NAT is good for us.



Plan C -- IPv6 Now is Cost Effective

- Some success
- Too many intangibles
- Hard to reach the right target audience



Plan D: IPv6 can...

- Run faster than IPv4
- Leap tall routers in a single bound
- Reduce SPAM
- Eliminate H@X0R\$
- Solve Global Warming
- Cure World Hunger
- Make Cats and Dogs Love Each Other
- Cure Cancer

Actually, IPv6 Can

- Run faster than IPv4*
- ~~Leap tall routers in a single bound~~
- ~~Reduce SPAM~~
- ~~Eliminate H@X0R\$~~
- ~~Solve Global Warming~~
- ~~Cure World Hunger~~
- ~~Make Cats and Dogs Love Each Other~~
- ~~Cure Cancer~~

*But only in some cases.

IPv6 Can also

- Solve our internet addressing needs for many years to come
 - Reduce costs and improve security by eliminating NAT
 - Simplify operations
 - Simplify network planning
 - Improve routing
 - Reduce the size of the global routing table*
- *But not until we're done with IPv4.



IPv6 is Like Insurance or Disaster Recovery

- Also hard to reach the right audience
 - Turns out Risk Management people don't attend technical conferences
 - Risk Management conferences don't want to know what IPv6 is.
- Geeks don't care about Insurance
- Few Geeks Want to Consider IPv4 a Disaster in its Current State
- Insurance isn't sexy, either.

Vendors are So Much Fun

- “You’re the only one asking for IPv6!”
- “Nobody wants it, so we haven’t added it yet”
- “We’ll implement it when it becomes important”
- “We’re counting on 10 years of selling CGN boxes!”
- “Our product is IPv6 Compliant... You can put an IPv6 address on an Interface!”*

*Emphasis on “AN IPv6 addr. and AN interface”

So how do we sell IPv6?

- Good question!



Important Enterprise Considerations

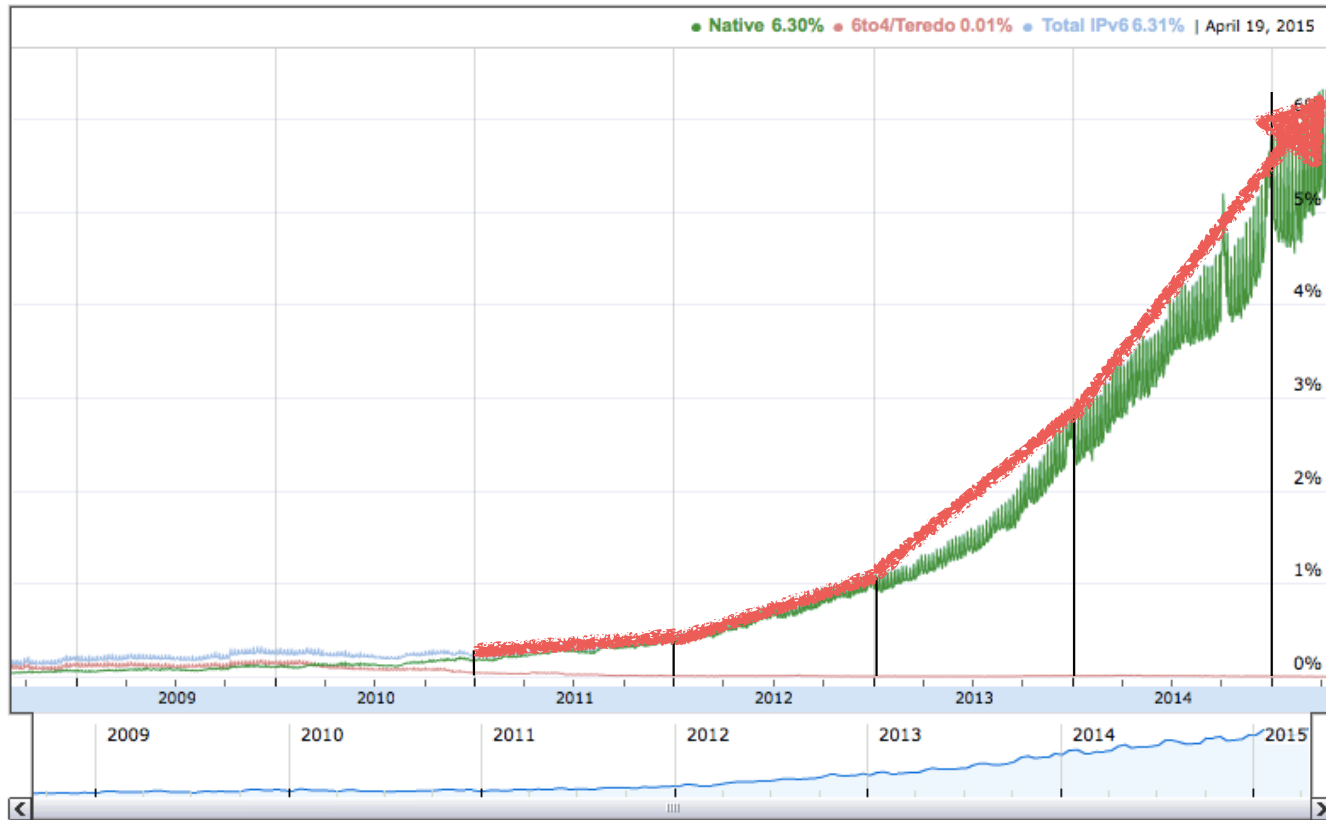
- Contrary to Popular Belief, IPv6 is NOT an IT problem.
 - It is an Organization-Wide Task
- Deploy, don't Convert
 - Conversion is Scary
 - Adding IPv6, not so scary.

Take Bite-Sized Bites

- Start Early, Start Often
 - Trying to design and build a complete IPv6 deployment plan as a single project is doomed
 - Create small projects with definite, achievable goals and execute them
 - Apply lessons learned from early projects to later projects
 - Don't worry if you get it wrong (you will)... Learn from it and move forward

OK... Now the hard question...

- What is keeping your organization from deploying IPv6?



Hard Question Number 2

- How do we change that?
 - ▣ IPv4 can't continue as a sacred cow.



Q&A



Contact:

Owen DeLong
Senior Network Architect
Akamai Technologies
<http://akamai.com>

[owen at akamai.com](mailto:owen@akamai.com)
+1 (408) 890 7992