

IPv6

Fun, Profit, Using & Hacking



Reality



Mac User



Photoshopped
(Extensively)

THE HTML5 TEST – HOW WELL DOES YOUR BROWSER SUPPORT HTML5?

your browser | other browsers

UPDATED!
August 23, 2011

your browser scores

293

AND 8 BONUS POINTS
out of a total of 450 points

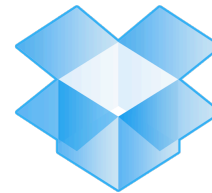
ABOUT THE TEST

The HTML5 test score is an indication of how well your browser supports the upcoming HTML5 standard and related specifications. Even though the specification isn't finalized yet, all major browser manufacturers are making sure their browser is ready for the future. Find out which parts of HTML5 are already supported by your browser today and compare the results with other browsers.

HTML5

Parsing rules | 2 bonus points | 11

<!DOCTYPE html> triggers standards mode | Yes ✓



Dropbox



amazn
web services™



My Car

Tracking Your Car
Clear Your Car's Location?

Distance: ~ 10 m GPS Accuracy: ± 47 m

NO

Detailed Protocol Review

I
P
v
4

Version	Length	Service Type	Packet Length
Identification			N/A D F MF Fragment Offset
Time to Live	Transport	Header Checksum	
Sending Address			
Destination Address			
Options			Padding

I
P
v
6

Version Number	Priority	Flow Label	
Payload Length		Next Header	Hop Limit
Source Address			
Destination Address			

LLANFAIRPWLLGWYNGYLLGOGERYCHWYRNDROBWL LANTYSILIOGOGGOCH
Llan-vire-pool-guin-gill-go-ger-u-queern-drob-ooll-llandus-ilio-gogo-goch

People **Think**

**More Addresses,
Long Numbers...**

So much more...

**Mobile IP,
Native(ish) IPSec,
New Discovery,
Whole New
Everything...**

**But how much
really **changes?****

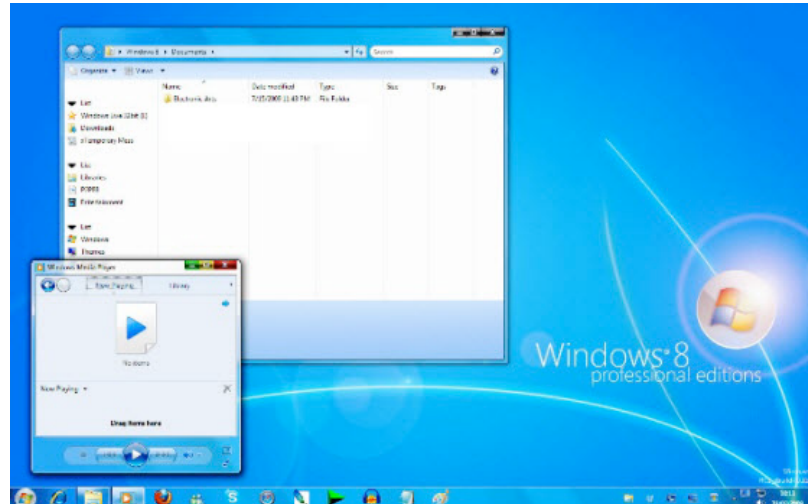
back to
School



Opening Thoughts

Where are we with IPv6?

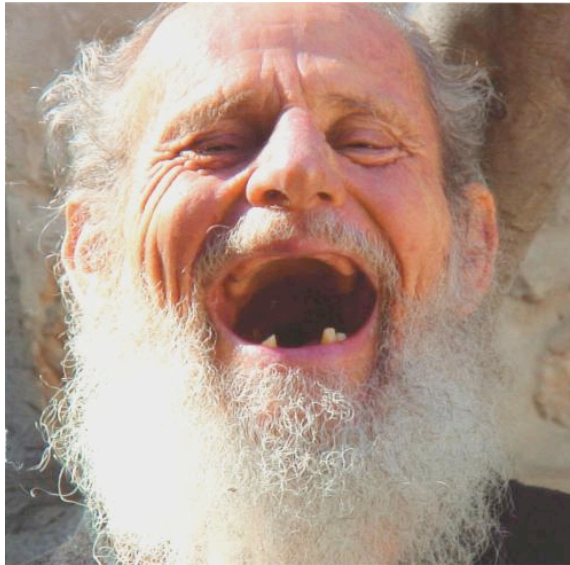
- A lot of stuff now supports IPv6
- Technical solution readiness is an issue...



But Wasn't It Better Before?

Where are we with IPv6?

- We are all less experienced with IPv6 versus IPv4
- IPv4 really sucks, but we got used to working around it.
 - Packet spoofing problems
 - MITM, IPID, Well hell you name it it's broken....



Selling IPv6

- Selling it has been a problem
 - You need it because it's erm... bigger?
 - A bit like getting children to eat vegetables..
 - It's good for you - really!
 - Are we doing it wrong?



Demo I

Reconnaissance



- **Don't think flat**
- **Mostly abstracted**
- **Announcing names**
- **Hierarchy helps recon**

Demo 2

Exploits over IPv6

- **Robust but new**
- **IPv4s first days**
- **Metasploit & THC**

Demo 3

Tunnelling & Evasion

- **Cuts through rules**
- **Logging/IPS often !on**
- **Security vs privacy**
- **Simple UI to IPv6
sploit**

Demo 4

Malware & IPv6

- **Mostly abstracted**
- **Some malware ready**
- **OS does the work**
- **Reputation challenges**

**It's WHEN, not
IF**

Getting Ready

7.

Determine your
balance of Security &
Privacy.

6.

Mistakes will be made.

Plan to patch.

5.

You already use it.

Embrace it.

3.

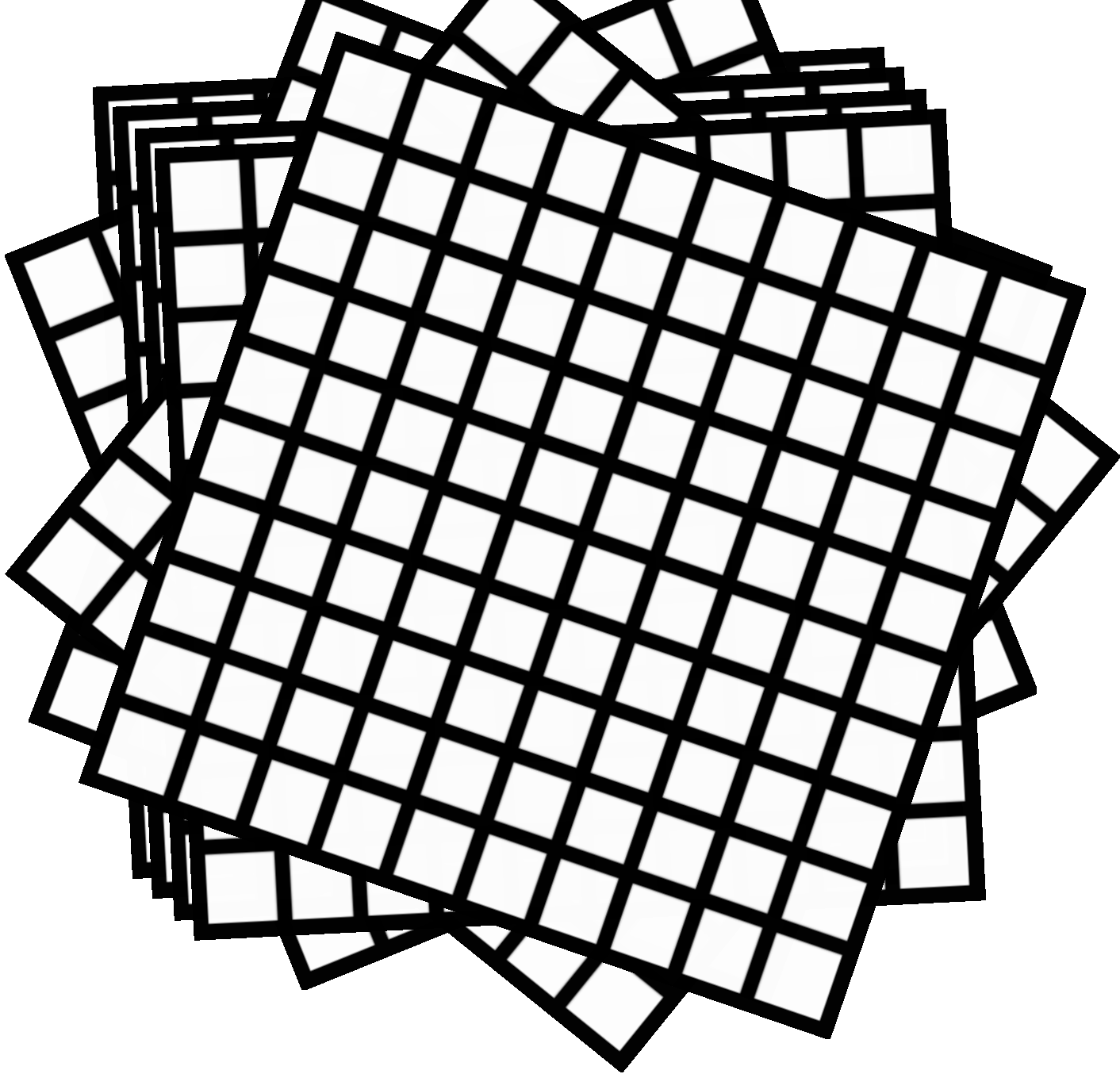
True Readiness.

Check technologies.

2.

Defence in depth.

IPv6 not just a network issue.





Go back to school.

Develop the right skills.

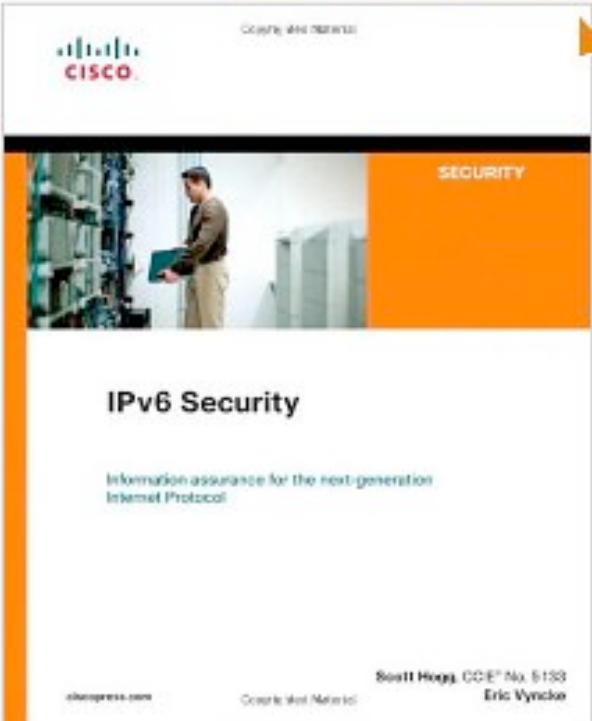
0.

Hackers learning it.

You should too.

Want to know more?

Click to **LOOK INSIDE!**



CISCO

COURSE AND RELATED

SECURITY

IPv6 Security

Information assurance for the next-generation Internet Protocol

© 2013 Cisco and/or its affiliates. All rights reserved. Cisco Confidential

Scott Hogg, CCIE# No. 8133
Eric Vyncke



This slide intentionally left blank... except the
microdot.

BD87 6069 0390 B18F 3850 D4F1 3CD1 2708 65E9 F144

jlyne@sophos.com
@jameslyne

