

Future Hardware

Szymon Słupik

szymon.slupik@homersoft.com
[gmail@slupik.com](mailto:szymon.slupik@gmail.com)
<http://headworx.slupik.com>
[@hdwrx](#)

do not believe...

...what fortune tellers say

In 2010 I predicted the Project Glass...



50 years: 1970 - 2020



I said "2020", Sergey heard "2012"...



Future Hardware

(we will be talking about the Internet again!)

Offline is not a valid state of existence

W dzisiejszych czasach "nieosiągalny" oznacza stan bliski śmierci klinicznej

--Jacek Dukaj, Czarne Oceany, 2002

Nowadays "unreachable" means a state of near-death experience

--Jacek Dukaj, Black Oceans, 2002

Connected: the purpose of existence

- The Internet Of Brains
 - Connecting brains
 - Connecting senses
- The Internet Of Things
 - Connecting machines
 - Connecting sensors

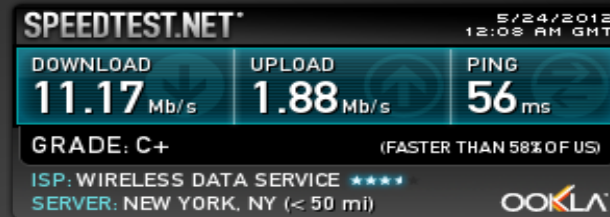
The Internet of Brains

PC: Personal Computer or Coupler?

- Human body is a **biologic** brain interface
- Computer is an **electronic** brain interface
 - always - on
 - always with me
 - wearable
 - connected
 - ...

Bandwidth is still the problem #1

- My recent LTE experience in NY:

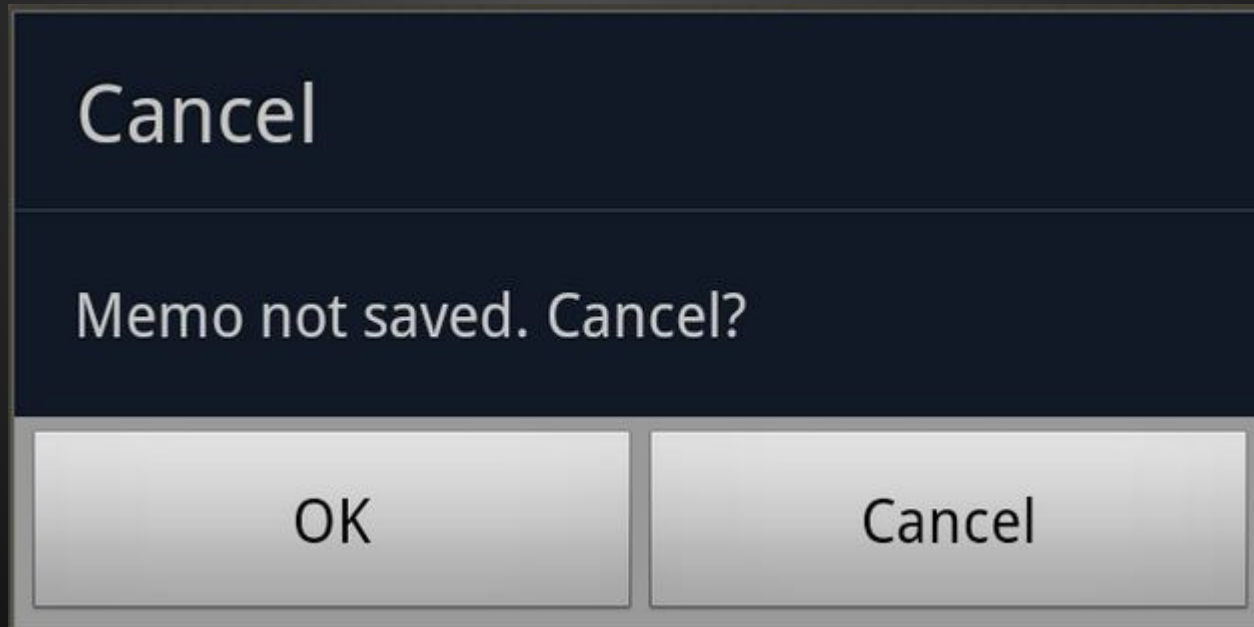


- The Last Mile: solved, the Last Foot: not
 - It still takes me a minute to read a page...
 - ...and ten minutes to write...
- We need to go digital end-to-end

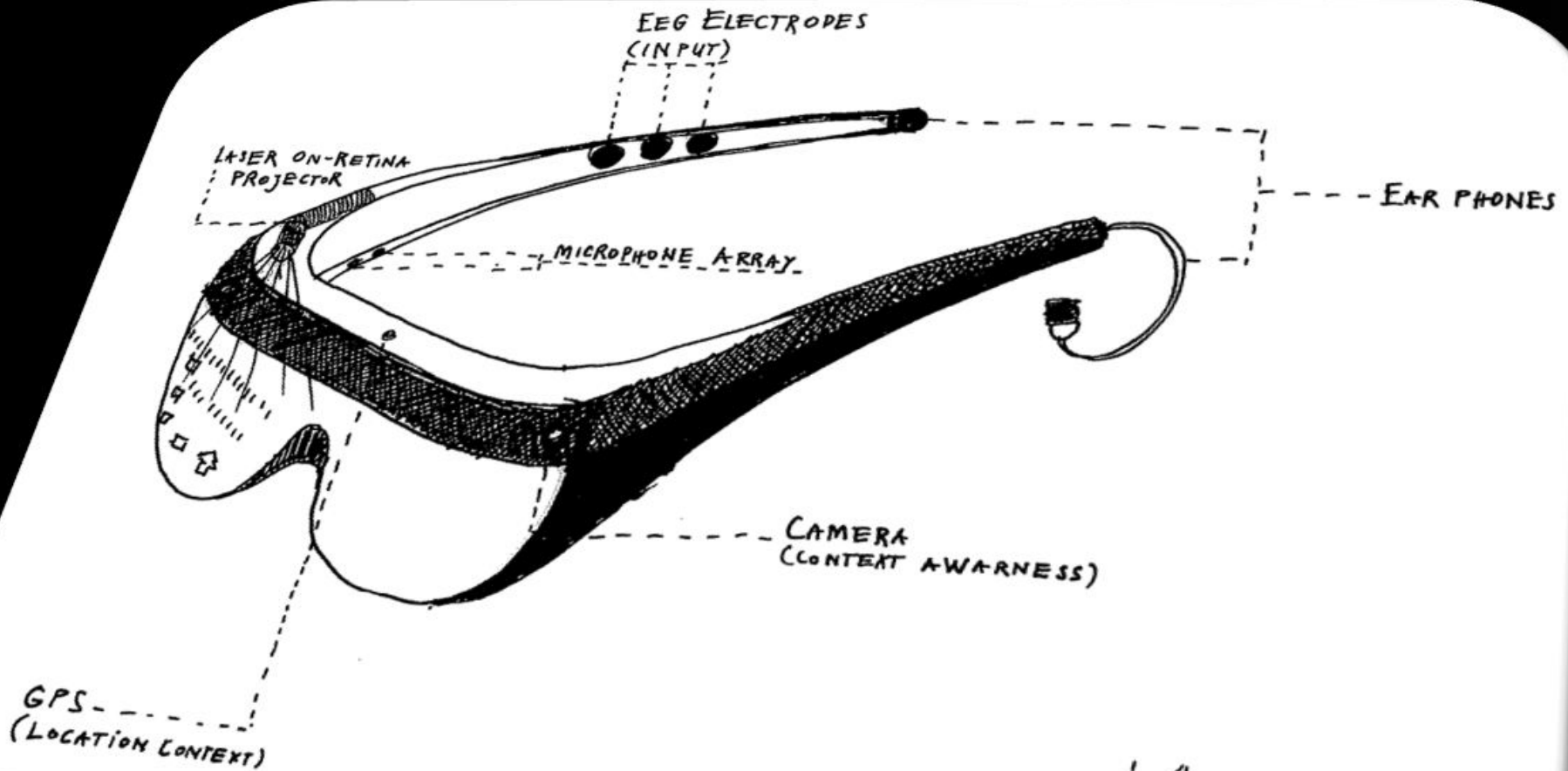


UI / UX is still the problem #2

- Computers are still dumb...
...interpreting actions instead of sensing intents



A Personal Coupler in 2020 (or 2015?)



K. Miura

The Internet of Things

Connecting things today

Copper wire



Connecting Things Tomorrow

(DEMO)

Copper replaced by software

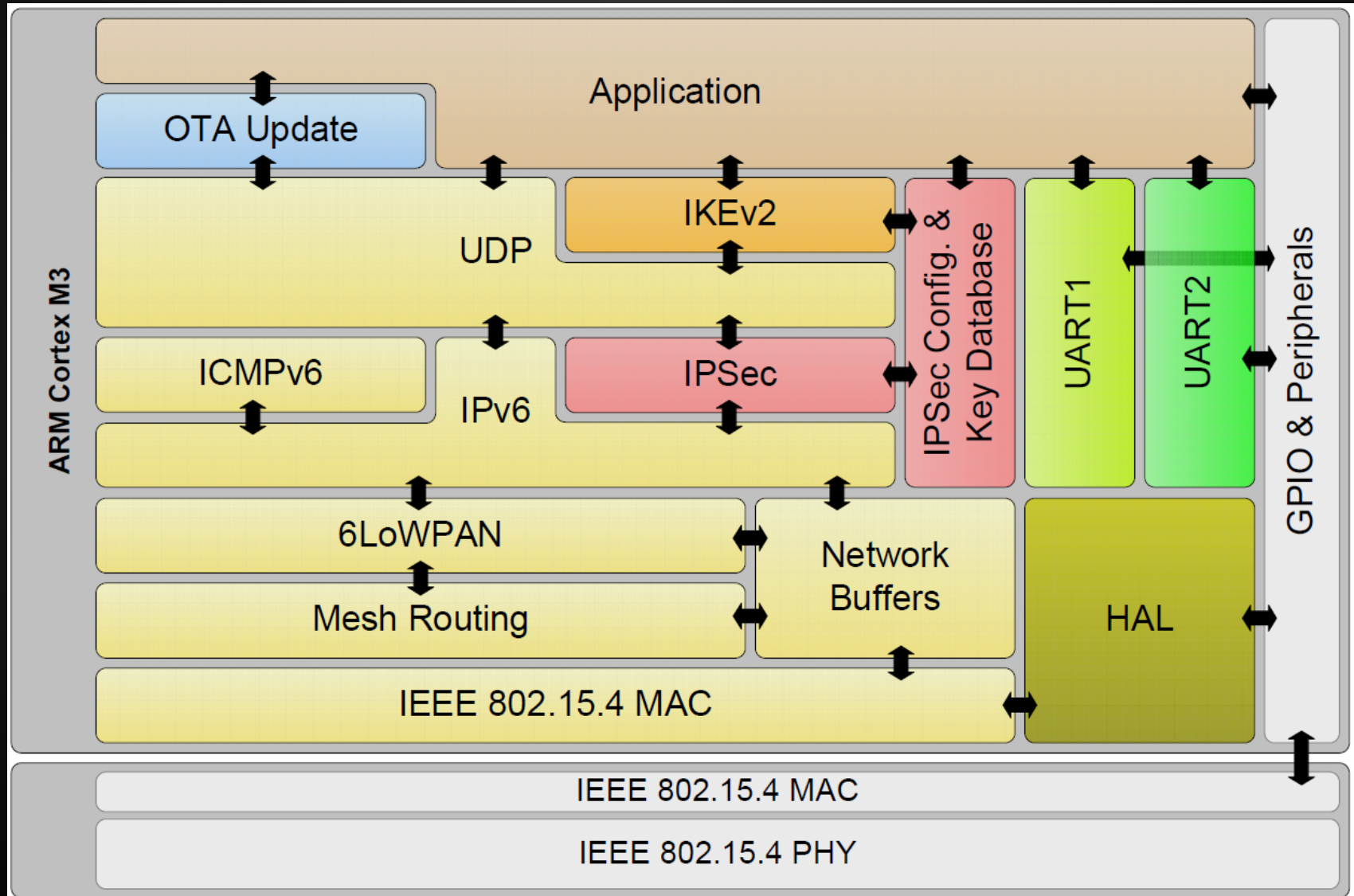
Ultra Low Power Radio (802.15.4 PHY/MAC)
End-To-End IPv6 UDP including IPsec
IKE v2
Diffie - Hellman Key Exchange
Power Control
Diagnostics
On The Fly (Re)Configuration
Managed State
...and more...

fe80::211:7D00:0030:18a2

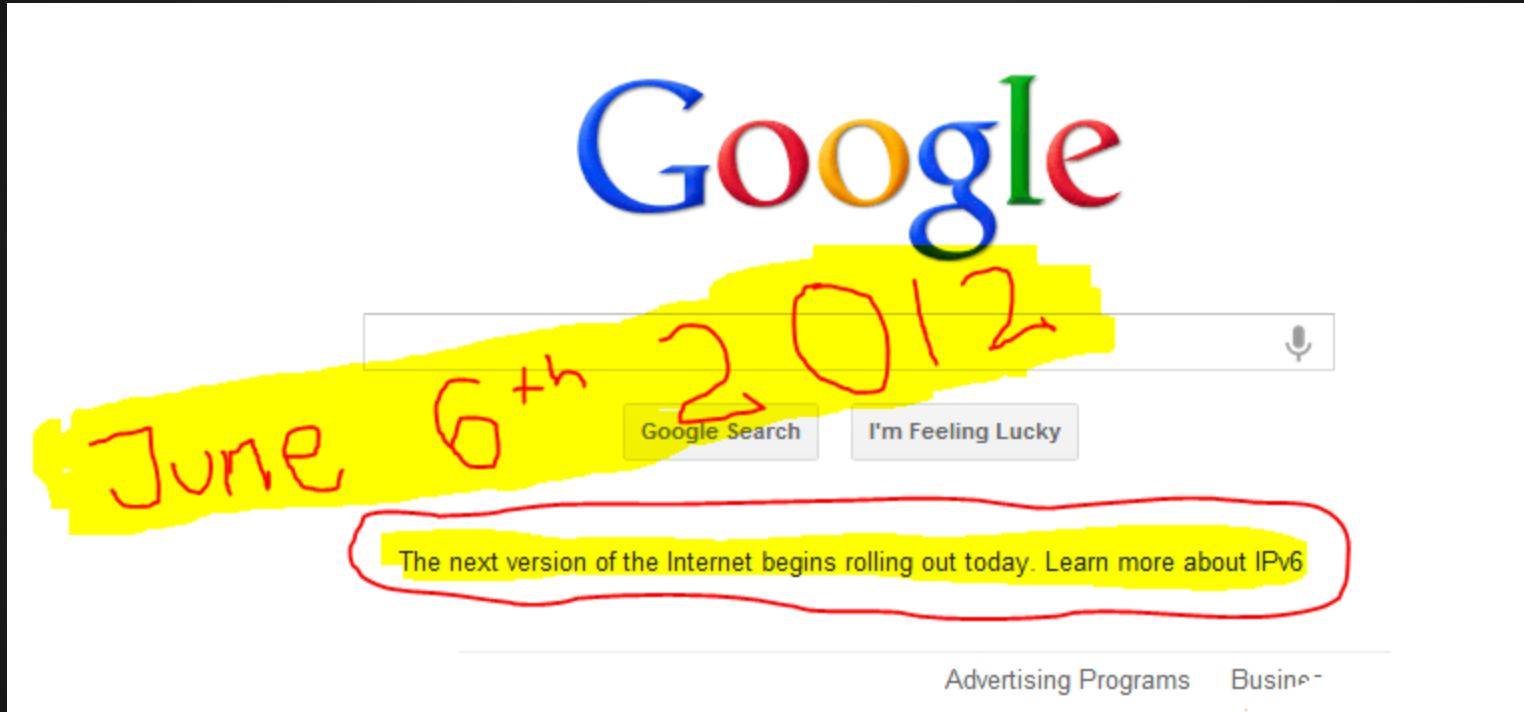


fe80::457a:d2d2:5ddc:e8f9

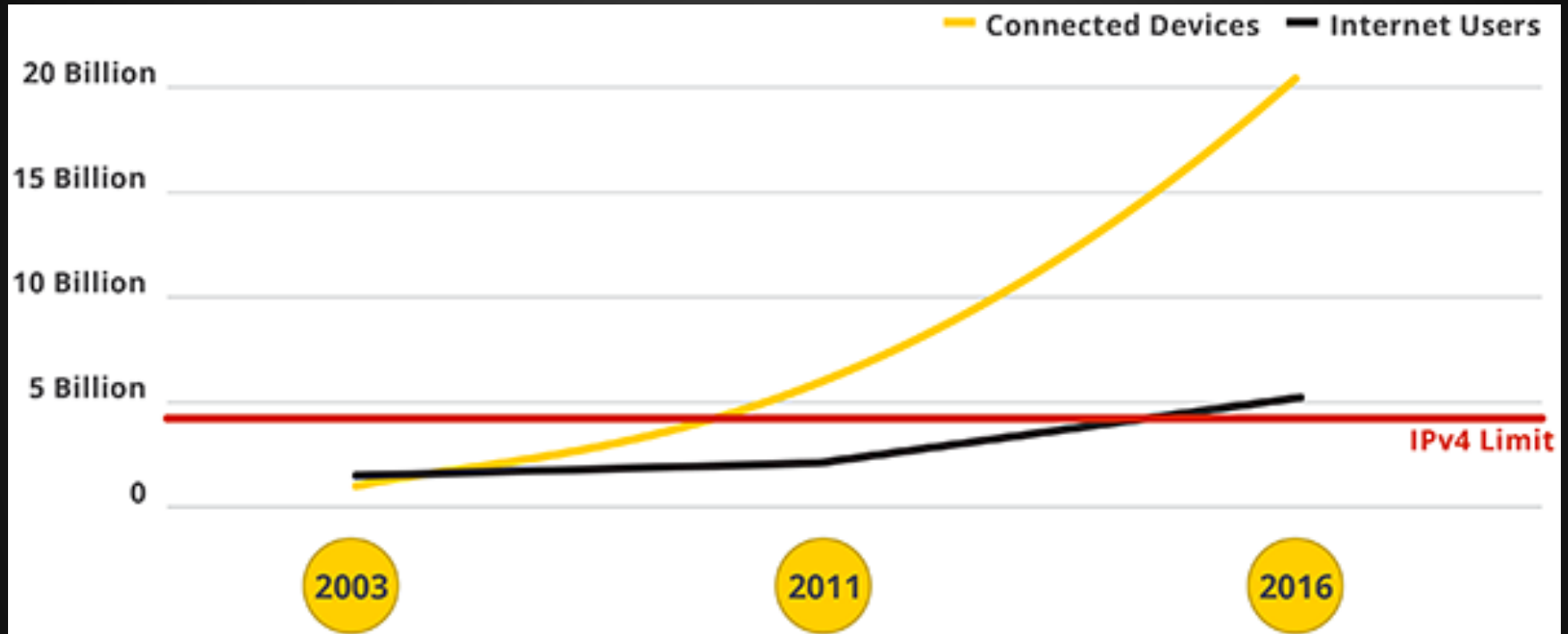
Section of the virtual copper wire



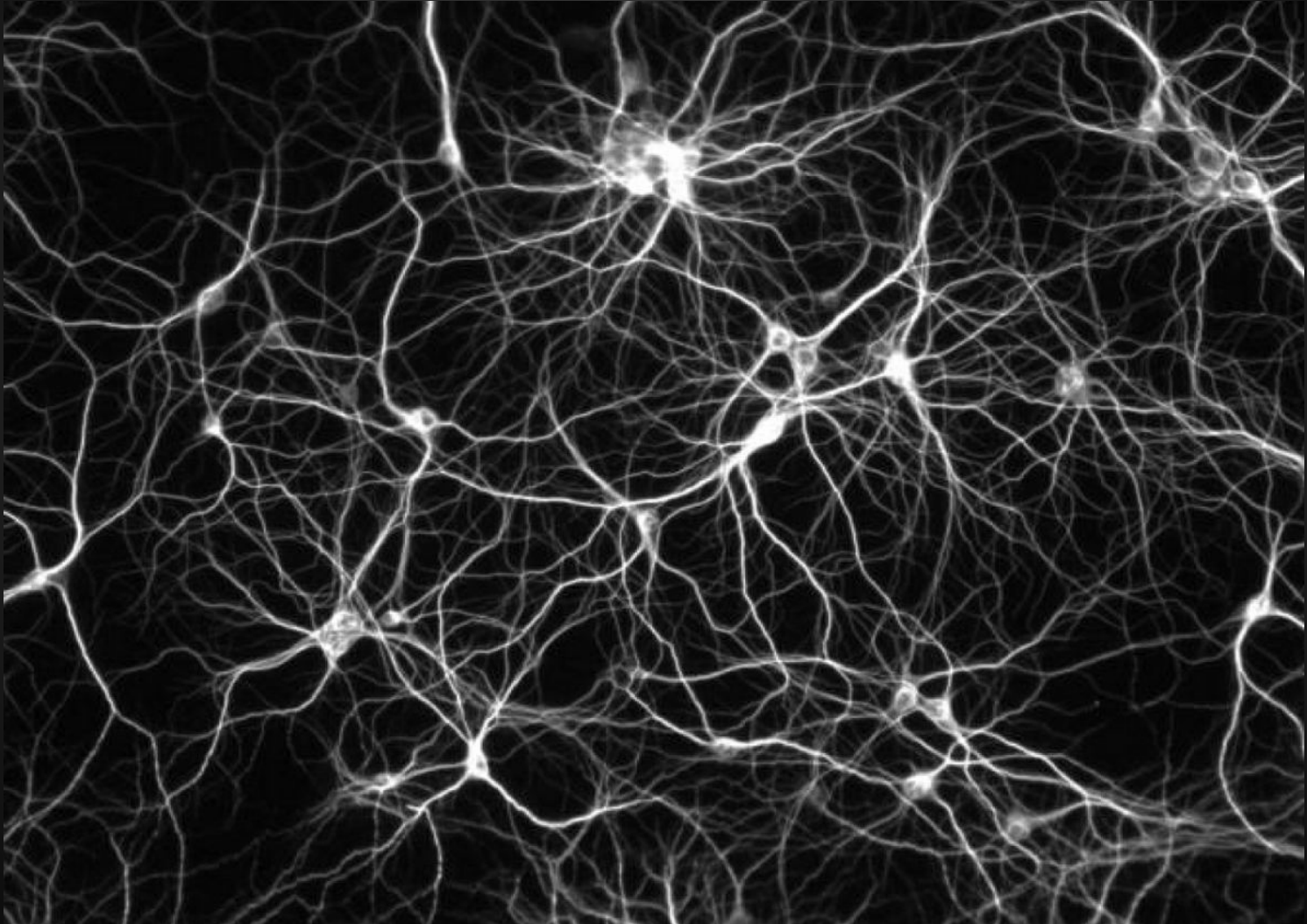
IPv6: The next version of the Internet



Every thing will be connected



IoB + IoT = New form of life?



Thank You!

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