

The Future of IPv6 (the Internet)

End-to-end technologies

The buzz word is decentralized web, blockchain is one of these technologies. There are and will be many more.

- ✚ Decentralized Web Summit:
<https://decentralizedweb.net/>
(many videos from conference incl. Vint Cerf, Tim Berners Lee)
- ✚ Decentralized web service, replacing http, www.ipfs.io
peer-to-peer hypermedia protocol to make the web faster, safer, and more open

Read full story at

<https://flowdays.net/en/blog-en/2018/1/22/how-iot-and-blockchain-are-going-to-drive-ipv6-deployment>

End-to-end technologies (cont)

- ✚ Blockchain – might be used for all different purposes, decentralized, hard to hack, hard to manipulate
– people start creating clouds with blockchain (www.sia.tech)
- ✚ Interplanetary File System, ipfs.io – content stored in a distributed file system cannot be controlled by censorship (Catalan independence referendum, Wikipedia mirror)
- ✚ Microservices, Open Shift, Containers.....
- ✚ 19 industries which will be disrupted by blockchain
<http://futurethinkers.org/industries-blockchain-disrupt/>
(guess what, IoT is one of them)

Security and Data Protection

- ✚ Data sovereignty (data stored is subject to the laws of the country in which it is located. Hard to do with IPv4 due to NAT and velocity of change.
- ✚ The vast hierarchical address space of IPv6 and the way it is managed allows for rules to limit access to certain countries. One example of how this can be enforced is the EU with the new version of the privacy regulation, called General Data Protection Regulation (GDPR).

IoT as a business driver

- # Example SBB, swiss train company
- # Business decides to deploy the first IoT passenger app in Q1 – 2019.
- # Need: 1'000 IP addresses for 1'200 trains.
- # Network group says: «forget it, we don't have so many IP(v4)-addresses».
- # -> App will be IPv6-only!!!

Now they understand how good it would have been to have migrated the backend and backbone before urgent need arose.
No way around translation.

My perspective

- ✦ The future of the Internet can only be guessed. Even what is going to be in five years is unpredictable.
- ✦ We live in a highly transitional time, both with regard to technologies emerging and social impacts and developments.
- ✦ There is a new generation at the horizon, entering business and the political world who are very different. They will (and are already doing it) change the way we use the Internet.
- ✦ New technologies emerge over night – today blockchain, tomorrow???

The challenges – how we use technology

- ✚ Cybercrime (Govs, Cars, Airplanes, medical)
Website attacks – vs. Rerouting my car or manipulating my heart rate controller
- ✚ Total control of people through data collection vs. Trust, networking and being connected (wait until there is no cash anymore) – this is about trust and freedom versus fear and control
- ✚ I believe that the Internet is a mirror of human collective consciousness and society.

Celebrate 6th anniversary

And let's create a healthy future Internet

*By making daily decisions
and take actions
based on trust, not on fear.*



Thank You For Your Attention!

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von Silvia Hagen, Deutsch

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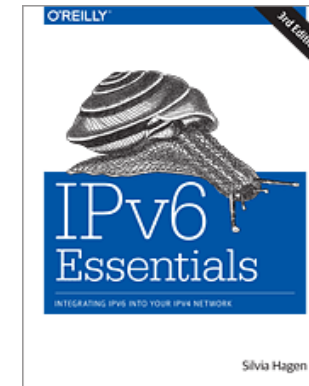


IPv6 Essentials

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