Regulation to Support Technology

Regulate to Stimulate

Marco Hogewoning | Roundtable Meeting for Governments (Middle East) | 15 December 2020

Making It Work Together

- Technology and regulation are not that far apart

- Standardisation is a form of regulation

  - The goal is to find a solution to an identified problem

  - Standards say what you should or should not do

- Legislative instruments can support this model

  - Provide guidance to implementation choices

  - Create a collective timeline and set goals

- Need to be aware that both sides have constraints

  - Compatibility and interoperability

A Joint Environment

- Standards and technological solutions

  - Need to be aware of the broader problem area and impact

  - Find a balance between input and needs of all stakeholders

  - Not everything can be solved with technology

  - There is often more than one solution

- Regulation and legislation

  - Relatively slower development compared to technology

  - The more details you include, the harder it gets

  - Limited reach, needs harmonisation

  - Impossible to regulate that which has not yet been invented

Smarter Regulation

Some Examples

Deploying IPv6

- Relatively easy to say "Everybody must deploy IPv6."

  - Where does that leave IPv4?

  - What if something better emerges in the future?

- What is the real problem we are trying to solve?

  - We have a global shortage of IPv4 addresses

  - Trying to move people away from IPv4 by deploying IPv6

- Shouldn't we address the dependency on IPv4?

  - Limit the negative effects of the IPv4 address shortage

Showcase: **NAT in Belgium**

- Recognised sharing of IPv4 addresses has problems

  - Technical constraints make it expensive and hard to scale up

  - Potential to harm or limit future innovation

  - Law enforcement can't easily attribute addresses to users

- Working with the industry on solutions

  - Recognising you can't easily switch off IPv4

  - The compromise: Limiting the number of users who can share an IPv4 address

  - Resulted in a code-of-conduct with a norm (standard?) of 16 users per address

- The side-effect was an expedited roll out of IPv6

Securing the IoT

- A very broad spectrum of applications and services

  - Involves everything from physical devices to software and data

  - Many IoT solutions still only exist as ideas or prototypes

  - We know it will have a massive impact

- The challenge we are faced with

  - Too important to just let it go, waiting increases the risk

  - Too many unknowns to steer on specific details

  - Don't want to stifle innovation or the emerging market

  - Value-chain extends across the globe, international dependencies

- Needs a very high-level and broad approach

Showcase: EU Radio Regulation

- The EU Radio Equipment Directive provides an opening

  - Two articles allow for further specification of "security and safety"

  - Almost all IoT devices have a radio and are within the scope of the regulation

  - Framework applies throughout the value-chain with shared responsibility

- Proposal to expand on the requirements

  - Provide software updates throughout the lifetime of the product

  - Make sure that data is kept secure throughout

  - Address privacy aspects, e.g. toys and wearables

- The side-effect is the ICT behind it will follow these requirements

Questions

marcoh@ripe.net
@ripencc