FOCUS AND ISSUES

INTERNET ACCESS LAYERS

INTERNET

> CONTENT
> CONTENT DISCOVERY

IAS PROVIDER

ROUTER

MOBILE DEVICE

> APPS
> APP DISCOVERY
> OPERATING SYSTEM
> HARDWARE

BACKBONE
NETWORK

INTERNET ACCESS
NETWORK

PRIVATE
NETWORK

PHYSICAL WORLD

NET NEUTRALITY

FOCUS OF THE REPORT

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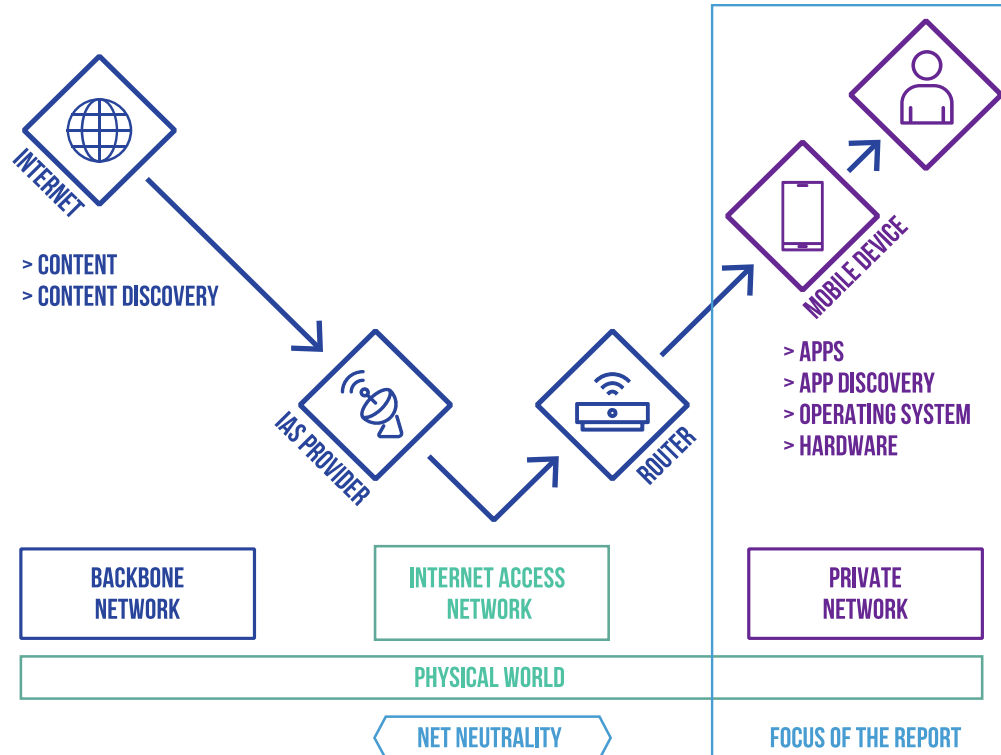
HARDWARE LAYER

- Not a bottleneck, no significant network effects

- But hardware layer alone dysfunctional without OS and apps

- Possible device neutrality issues:

Access to chips and sensors

Network locking

Software locking

OPERATING SYSTEM LAYER

- Significant indirect network effects

- Unlikely that more than two OS are sustainable

- Possible device neutrality issues:

Pre-installing / pre-configuring apps

Access to OS functionality

APP DISCOVERY LAYER

- Comprised by browsers and app stores

- Each with significant indirect network effects

- One dominant browser/app store per OS

- Possible device neutrality issues:

Discrimination
Self-preferencing
Strategic/delayed implementation of standards

POLICY RECOMMENDATIONS

KEY POLICY OBJECTIVE

- **Not a "neutrality regulation" in the narrow sense: several arguments to justify 'non-neutral' conduct**
  - innovation and investment
  - security and privacy
  - harmful content

- **Ensuring alternative routes to content for consumers**

- **Avoiding a fragmentation of content**

- **Competition of devices may not be enough due to "termination monopoly"**

INTERVENTIONS AT THE...

OPERATING SYSTEM LAYER

APPLICATION DISCOVERY LAYER

1. Enabling side-loading of apps
2. De-installation and user consent for pre-installed apps
3. Transparency about APIs and monitoring of standards
4. Data portability for devices

1. Enabling alternative app stores
2. Unbundling dominant app store
3. No self-preferencing in browsers and app stores
4. Transparency and redress mechanisms for dominant app stores

'DEVICE NEUTRALITY' PROVISIONS IN THE DMA

- Article 5(b)
  App developers can set different prices and conditions for their apps in alternative app stores.

- Article 5(c)
  allow app developers to conclude contracts with consumers also outside of the app store, so that they are not required to use the app store's payment system.

- Article 5(f)
  A provider of a core platform service cannot require (business) users to subscribe to any other core platform service.

- Article 6(b)
  Device providers must allow users to uninstall any pre-installed apps provided they do not compromise the performance of the OS or device by doing so

- Article 6(c)
  Device providers must allow users access to third party apps, including third party app stores (but also via side-loading), provided they do not endanger the integrity of the OS or device

- Article 6(d)
  App store controller cannot prefer its own apps in search results or in other ways in their app store

- Article 6(e)
  Device providers cannot technically restrict the ability of users to switch between apps accessed via the OS

- Article 6(f)
  Device providers must allow third party providers of 'ancillary services' (which includes payment services) equal access to the OS and device hardware)

- Article 6(k)
  App store controllers must ensure fair and non-discriminatory access by third party app developers to the app store.

- Article 6(h)
  Facilitate data portability between devices, thereby reducing switching costs.

INTERVENTIONS AT THE OS LAYER: PRE-INSTALLED APPS

- **Control** over and **consent** for access privileges of pre-installed apps in the same way as for other apps
  [beyond Article 6(b) on side-loading and Article 6(e) on preventing consumer switching]

- Same **access to OS/APIs** for third-party apps as for pre-installed app subject to security assessment
  [beyond Article 6(f) on OS interoperability for ancillary services, but with view on integrity and security]

- Apps similar in nature to pre-installed apps should be given non-discriminatory **access to pre-installed (vertically integrated) app store**

- Including **hosting alternative app stores in pre-installed app store (with independent payment system)**
  [clarify Article 6(k) on non-discriminatory app store accesss]

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INTERVENTIONS AT THE OS LAYER: TRANSPARENCY

- Make publicly available the **specifications of all APIs** and functionalities that can be invoked by apps (pre-installed or not)

- Make publicly available the **conditions for access** to those APIs

- **Minimum notice period** before changing APIs that may significantly impact the performance of apps

- Consider creating a system for **monitoring implementation of standards set by standardisation bodies (e.g., W3C)**

[Not yet in DMA]

NO SELF PREFERENCING IN APP STORES AND BROWSERS

- Need to make ban of self-preferencing explicit
  [as is done in Article 6(d) DMA]

- Browsers should be added as possible 'core platform service' in DMA

- Difficult enforcement
  - Detection?
  - Sponsored listings should still be allowed
  - Compliance?

TRANSPARENCY OF DOMINANT APP STORES

- Number of provisions already in P2B, DSA and DMA that would apply concurrently to app stores

- No additional provisions, but simultaneous application of P2B, DSA and DMA would require careful oversight

- **Consider institutional mechanisms to coordinate transparency regulations** (e.g., working group in the Commission or ‚app store regulator')

SUMMARY OF RECOMMENDATIONS

OPERATING SYSTEM LAYER

APPLICATION DISCOVERY LAYER

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