Relevant market definition and identification of operators with significant market power (SMP):

Methodological aspects and coordination with competition authorities

ITU/BDT Regional Economic and Financial Forum of Telecommunications/ICTs for Latin America and the Caribbean

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Scope

- *Origin of competition in the telecommunications industry*
- *Technological convergence*
- *Net neutrality*
- *Free Internet access services*
- *The concept of relevant market*
- *Operators with significant market power (SMP)*
- *Identification of operators with SMP*
- *What must be regulated, how to regulate*
- *Should a regulator be also a competition authority?*
- *Future regulatory risks*

Origin of competition in the telecommunications industry

- Telephone service was invented in the US at the end of the 19th century. Alexander Graham Bell, one of its inventors, created the Bell Telephone Company in 1879, which in 1885 was absorbed by the American Telephone and Telegraph Company (AT&T).
- In few years AT&T became the main telephone operator in the US.
- The US telephone market was competitive at the beginning of the 20th century (other countries also had competition).

Origin of competition in the telecommunications industry

- However, in 1907, Theodore N. Vail, President of AT&T, proposed to the Government that a formal regulated monopoly would be more appropriate and efficient for the country.
- The Government accepted this proposal in 1913, through the so-called Kingsbury Commitment. The monopoly model was also adopted in the rest of the world.
- AT&T held a legal monopoly for local and long distance service in the US, until 1982.

Origin of competition in the telecommunications industry

- Judge Harold H. Greene was in charge of a key antitrust trial (Government of the US against AT&T), which ended in 1982 with an agreement between AT&T and the Federal Trade Commission.
- By virtue of this agreement, AT&T was divested in seven regional Bell operating companies (known as RBOC or "baby Bells"), and a single long distance company.
- From that time, AT&T kept only the long distance subsidiary (which began to operate competitively, through a multicarrier system) and to a lesser extent offered mobile services (then an incipient activity).

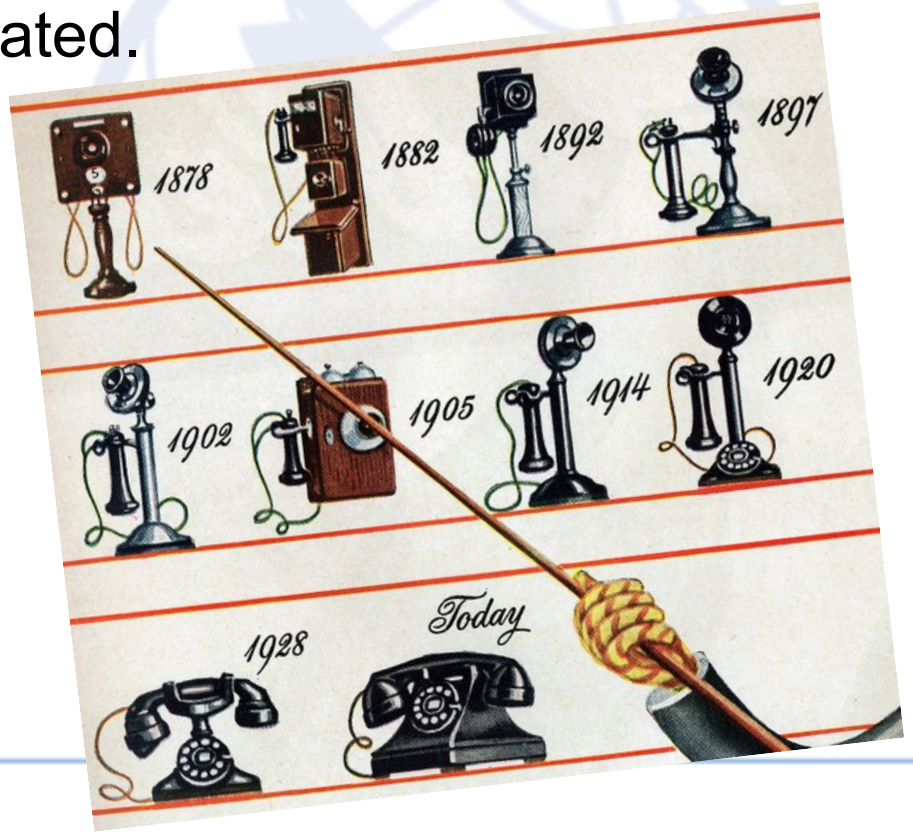
Origin of competition in the telecommunications industry

Origin of competition in the telecommunications industry

- AT&T was also permitted to enter in the computer industry, which previously was forbidden to AT&T, because of its dominant power in telephony.
- Finally, in 2005, already in the midst of a more competitive market, AT&T - then a weakened long distance company but a strong mobile telephony operator - was acquired by Southwestern Bell (one of the ancient baby Bells).
- The merged company was renamed as AT&T Inc. and now is also a strong Internet service provider (both fixed and mobile).

Origin of competition in the telecommunications industry

- Since its beginnings in the 19th century, until the eighties of the 20th century, telephony did not suffer major changes, except that grew in coverage and that services were automated.



Origin of competition in the telecommunications industry

- However, in early nineties of the 20th century, and thanks essentially to technological convergence and to competition initiated in the US, the UK and Japan, two major changes happened which completely modified the ancient telecommunications paradigm:
  - *Starts Internet's access widespread growth, which at the beginning was a new (additional) service, provided over traditional fixed telephone networks, or over cable TV networks. In addition, Internet access bitrate grew rapidly.*

Origin of competition in the telecommunications industry

- *Starts massive use of mobile telephony, which at the beginning only supported voice communication; however, now it also supports Internet access.*

- As a consequence of the above, most Governments around the world have attempted to open their telecommunications markets, to take advantage of benefits provided by free competition.

Little mobile phones say: Grandpa!!!

Origin of competition in the telecommunications industry

Mobile telephones evolution

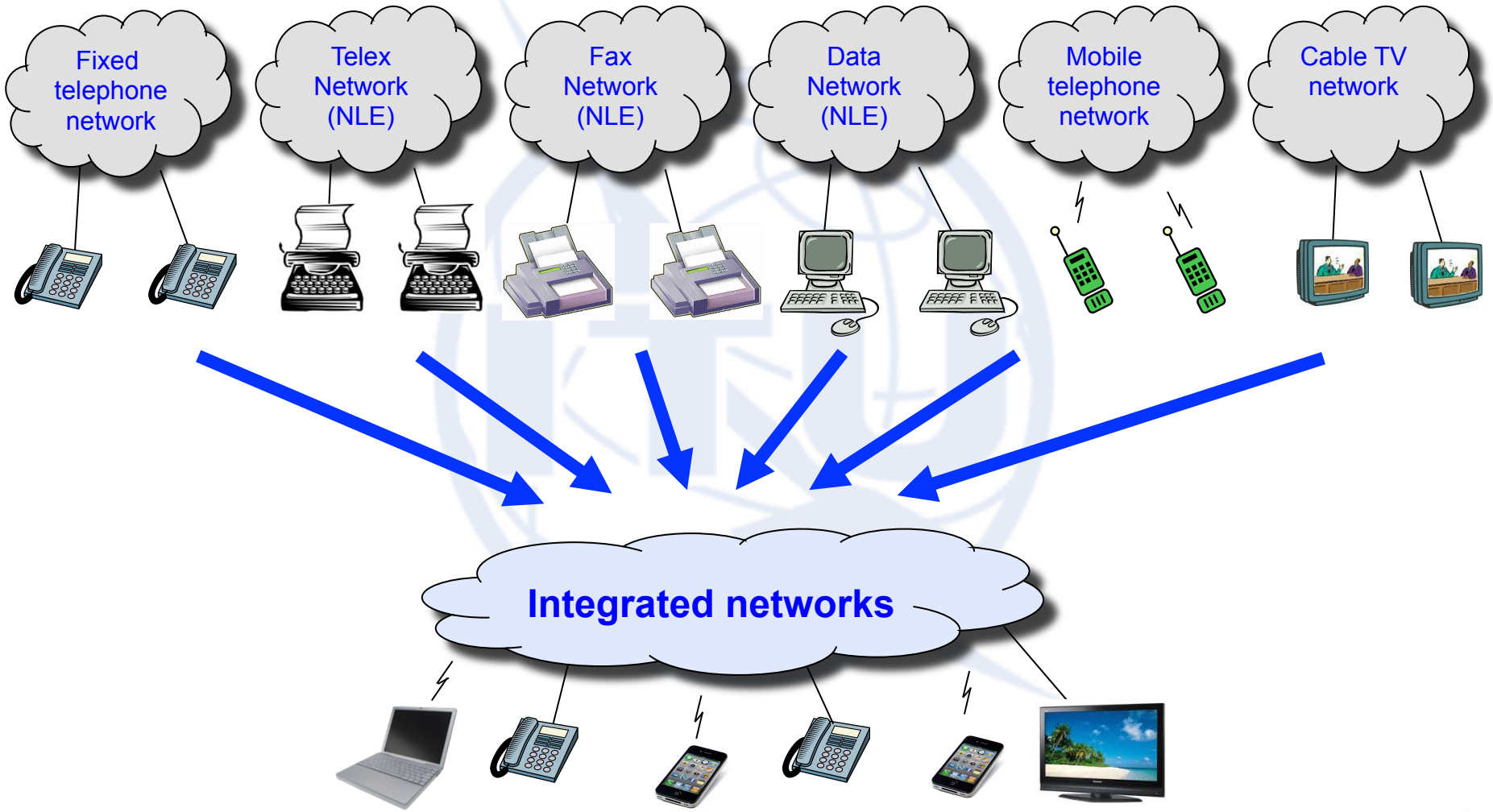
Technological convergence

- When telecommunications systems were mostly analogic, there was a one-to-one relationship between the kind of network and the rendered service.
- There were public networks specialized in fixed telephony, telex, data transmission, mobile telephony, cable TV and broadcasting.
- However, in the 1970s telecommunications technology and computer technology began to converge, allowing advancement towards the digitisation of telecommunications networks.

Technological convergence

- Due to technological convergence, most of ancient specialized networks became integrated networks.
- But those old specialised networks explain most of current industry regulation, which now is largely obsolete, because of technological convergence.
- Moreover, the above has caused a violent clash between two worlds: one historical and broadly regulated (telecommunications), and another one where State regulation was almost unknown (computers).

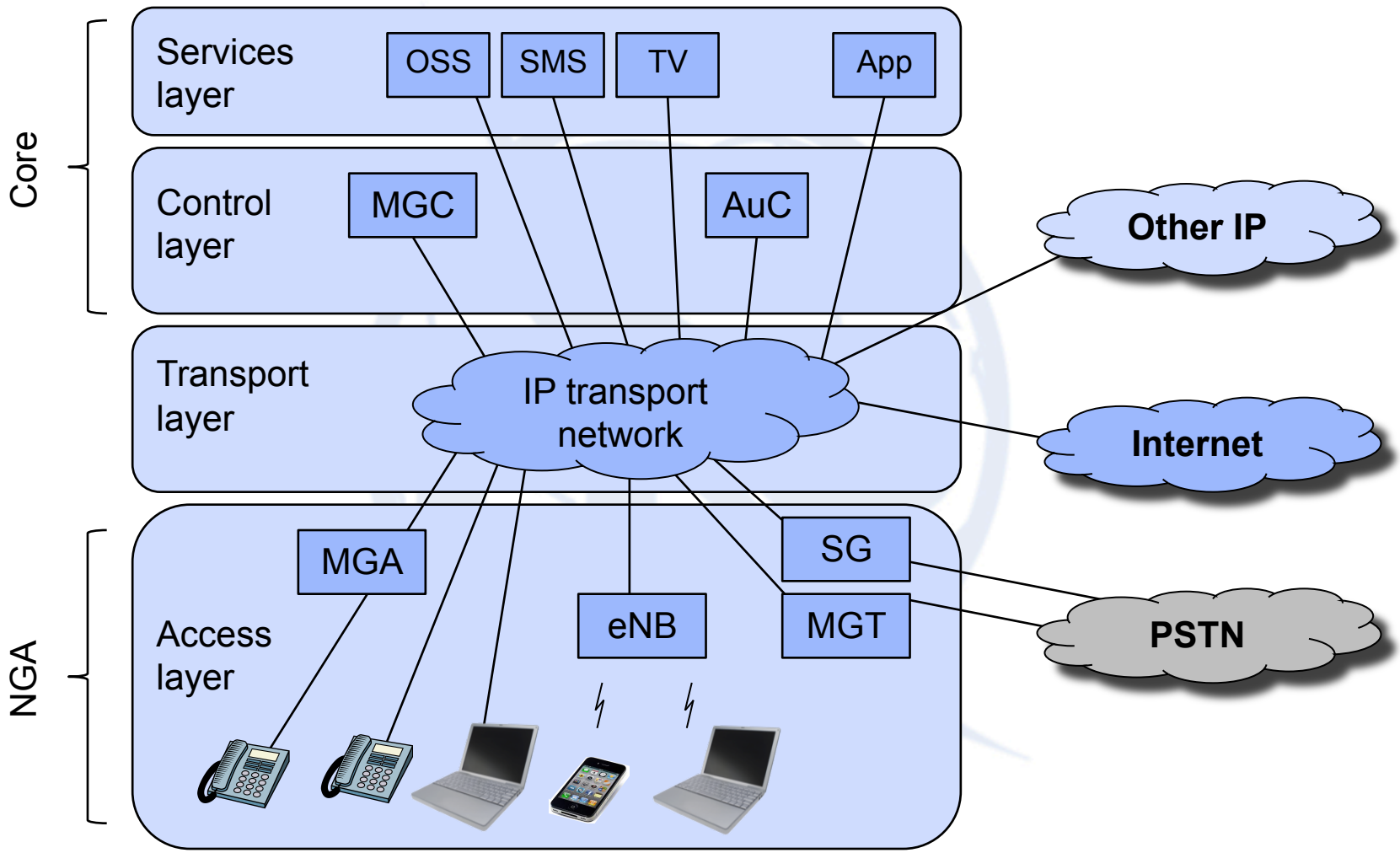
Technological convergence



Technological convergence

- In the last decade it has been demonstrated, globally, that traditional telecommunications regulation doesn't help to solve challenges posed by technological convergence.
- A good example of that is Internet telephony (VoIP).
- Many countries tried to impose the traditional regulation of fixed telephony to VoIP, but it didn't work well.

Technological convergence



Next generation network (NGN) basic architecture

Net neutrality

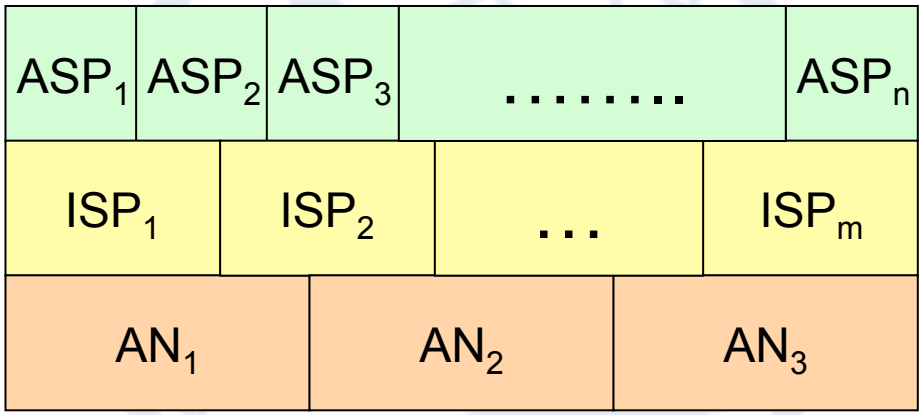
- Net neutrality is a technical and economic principle, which states that all electronic communications travelling across a network should receive the same treatment, regardless of the type of communication.

Net neutrality

- Internet was born neutral, but this concept in practice might be somewhat ambiguous.
- In addition it is not fully feasible (voice packets require priority).
- Moreover, there is not a single definition of net neutrality that is commonly accepted.
- Problems posed by net neutrality obey to concerns on Internet access providers, which may discriminate against certain services (applications or contents), especially when such services compete with those offered by access providers themselves.

Net neutrality

- This is a huge topic for the current industry regulation.
- Let's see a simple model for Internet access:



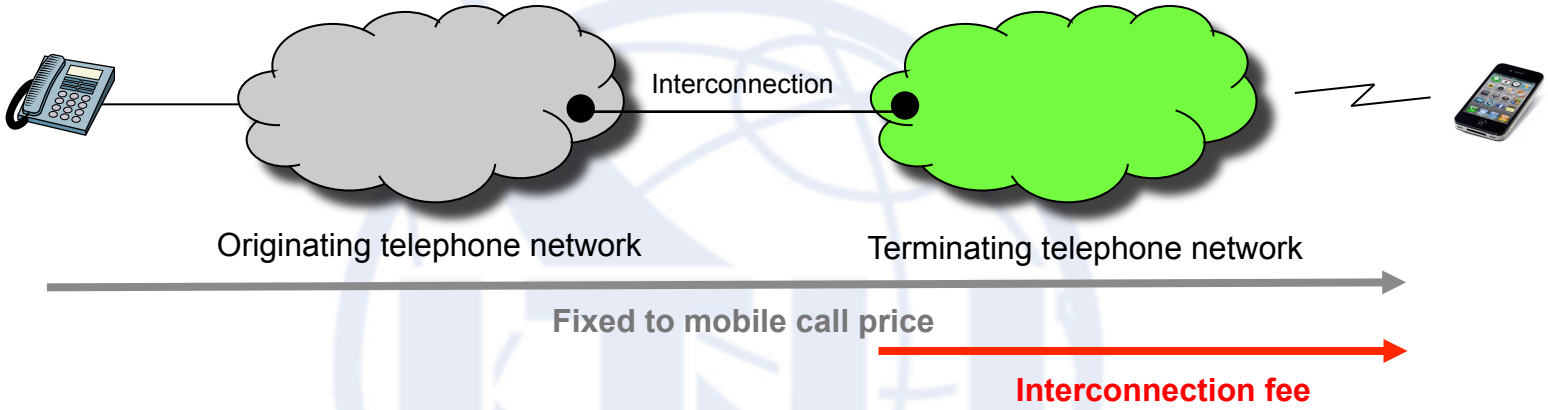
- At the ASP level we may find the most competition, since there are almost no entry barriers (except those that may arise from the lack of net neutrality).

Net neutrality

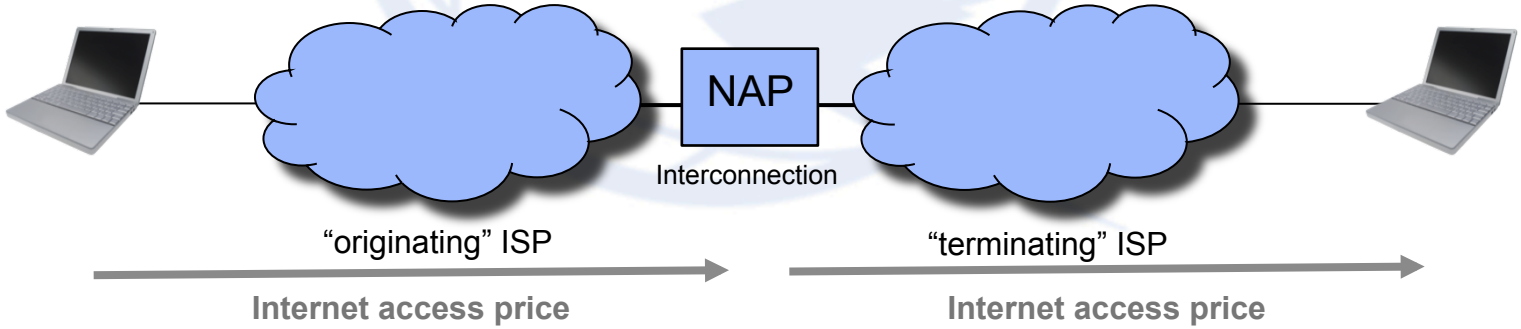
- Access networks (AN) conform the lowest level.
- It has less chance of competition, because investments requirements are high and there are other entry barriers (e.g. spectrum shortage).
- It is important to say that there is a big difference between traditional telephone interconnection and Internet interconnection.
- Defenders of net neutrality argue that AN providers are tempted to engage in discriminatory conducts against contents and applications providers, and that competition is not enough to prevent those practices.

Net neutrality

Telephone interconnection model:



Internet interconnection model:



Net neutrality

- Also, they argue that many contents and applications providers are not large enough to negotiate with access network providers.
- On the other hand, those who oppose to net neutrality argue that AN providers need to manage traffic, that some specific contents and applications obligate them to do additional investments (for traffic management), and that there are no evidences of widespread abuses.
- I strongly support net neutrality, but this discussion is far from being bridged.

Free Internet access services

- Cost-less social networks are back!

- In may 2014 the Chilean regulator, Subtel, outlawed "free social networks" (however, that statement seems still ignored by some Chilean operators).

Free Internet access services

- Subtel argues that "free social networks" infringe net neutrality. Are "free social networks" a good practice?
- Former Chilean Undersecretary of Telecommunications, Jorge Atton, argues that outlawing "free social networks" may affect low income customers.

B 6 | Economía y Negocios

EX SUBSECRETARIO DE TELECOMUNICACIONES ANALIZA RECIENTE DECISIÓN DE LA ACTUAL AUTORIDAD DEL SECTOR

Atton: prohibir redes sociales gratis afecta a clientes de menos recursos

Ex personero asegura que las promociones que daban las compañías eran positivamente discriminatorias, pero no arbitrarias, y favorecían a los usuarios de menores ingresos.

CONSTANZA RODRÍGUEZ F.

Como una decisión política complicada calificó el ex subsecretario de Telecomunicaciones Jorge Atton la medida que tomó el actual gobierno de prohibir que compañías del sector ofrezcan redes sociales gratuitas a sus clientes, debido a que esta, según prevé, afectará a millones de personas.

A su juicio, las promociones de las empresas de telefonía de menor tamaño desafiaban a las que tienen mayor participación de mercado, lo que era positivo. Además, dice, favorecía a las personas de menores recursos, dándoles una oportunidad de acceder a internet y a las redes sociales que más demandan los chilenos.

cer discriminación, ofreciéndola a todos, es un beneficio de servicio (...) Las promociones son discriminatorias por sí mismas. Ahora, la pregunta es si es arbitrario o no. Es un tema interpretativo", agrega.

Revisar antecedentes

Atton asegura que es relevante ver la historia de la ley, no solo la lectura de esta. En este sentido, explica que este es un proyecto de ley que partió en 2008. En ese entonces, cuenta, el subsecretario de Telecomunicaciones de la época, Pablo Bello, puso de ejemplo un servicio que Movistar entregaba a los usuarios prepago sin costo, que consistía en ingresar a los sitios web locales (.cl), pero si querían

Respecto de la decisión que habría tomado si hubiese continuado como autoridad, Atton insiste en que desde el punto de vista global no hay discriminación arbitraria. Agrega que si esto hubiese afectado la libre competencia, ahí habría aplicado la normativa o habrían hecho las consultas correspondientes al Tribunal de Defensa de la Libre Competencia. A su juicio, es necesario que la autoridad antimonopolios se haya pronunciado sobre esta materia.

"Poniéndose en los pies del subsecretario, la decisión que tomó tenía una lógica desde el punto de vista que puede ser una práctica que en el largo plazo atente a la libre competencia. En lo inmediato tenía un beneficio para las personas, similar

Free Internet access services

- In an equivalent way, Nera Consulting defends “zero rating services”.

Free Internet access services

- However, I think that “free social networks” are a harmful practice.
- Let's see: would it have any economic rationale that an electric distribution company gives for free the power for the oven, and sells the power for lighting?
- Certainly not!
- Moreover, it makes no sense to give traffic for free in congested networks (and most of our mobile telephone networks are congested!). On the contrary, pricing is a powerful tool to mitigate congestion, and to achieve efficient scarce resources allocation.

Free Internet access services

- "Free social networks" not only constitute an arbitrary price discrimination, but also undermine net neutrality.
- "Free social networks" is a new equivalent of price differentiation between on-net and off-net voice calls, which is now recognised as an anticompetitive practice.
- And a fresh question: will Whatsapp be free now that it permits VoIP communications?

The concept of relevant market

- Competition authority - ideally supported by the regulator - needs to establish which firms are likely to be in a position to exploit their customers, or behave in ways that make it more difficult for their competitors to gain a foothold.
- Such a position is generally described as one of significant market power (SMP), and it can only exist in relation to a particular market within which firms compete.
- Identifying these markets - or relevant markets - is a key task.

The concept of relevant market

- The main difference between market definition in a regulatory environment, with respect to competition law enforcement, is that regulators define markets prospectively (ex-ante), whereas competition authorities typically look for market boundaries backward (ex-post), in the context of a specific investigation.
- Relevant markets are defined in terms of products and services that are considered to be:
  - *sufficiently substitutable from the perspective of their users so that demand can readily move between them (demand side substitutability), or*

The concept of relevant market

- *sufficiently similar from the perspective of suppliers so that a firm supplying one of them would be able to supply the others on short notice and without having to make significant investments (supply-side substitution).*

- Relevant markets also have a geographic dimension.
- The relevant geographic market comprises the area within which such adjustments can take place with sufficient ease to impose a competitive constraint.

The concept of relevant market

- The hypothetical monopolist test is a tool commonly used by competition authorities and regulators to define relevant market boundaries.
- It is also known as the SSNIP test (from “Small but Significant Non-Transitory Increase in Price”).
- If a small but significant number of consumers switches to a substitute service, when there is a price increase (5% to 10%), it is considered a sufficient condition for both goods to be defined as forming part of the same relevant market.

The concept of relevant market

- Therefore, the existence of a group of consumers who would never switch in response to a relative price increase is not sufficient to conclude that the relevant market should be defined in a narrower way.
- Additional considerations for defining relevant markets are if we are in presence of a retail market, a wholesale market or a bundled services market.
- In retail markets sales are made to end users (usually in low quantities).
- In wholesale markets customers are businesses.

The concept of relevant market

- Those business may be other telecommunications operators, who source inputs (usually at large quantities) that are required to produce their own services.
- In a bundled services market, different services (e.g. voice telephony, Internet access and paid TV) are sold simultaneously.
- This last may happen in a retail market or in a wholesale market.
- Let's see an example: can fixed and mobile telephony conform the same relevant market?

The concept of relevant market

- For example, if we have a market with a single fixed telephone operator and three mobile telephone operators competing each other, probably mobile telephony is a good substitute of fixed telephony.
- If so, there is almost no risk in liberalising fixed telephone tariffs, because mobile telephony will act as a substitute service if the fixed telephone telephone operator tries to rise them above a competitive level.
- On the contrary, if we have a market composed of a single fixed telephone operator and a market of two mobile telephone operators.

The concept of relevant market

- If this market shows a weak competitive level, which requires some price regulation, fixed telephony will not be a substitute for mobile telephony as to overcome that price regulation.
- The above was just an example and in real cases additional considerations must be considered (e.g. if the single fixed telephone operator is at the same time an important mobile operator, if are there entry barriers for MVNOs, etc.).
- In the case of Chile, retail tariffs for fixed voice telephony were declared free of regulation in 2009.

The concept of relevant market

- It happened because Movistar - the local dominant fixed operator - faces now enough competition from mobile voice telephony. However, other fixed telephony wholesale related services, such as bit-stream access, were kept regulated.
- Another good example is Austria's decision to remove regulatory obligations to provide bit-stream access for service providers seeking to supply residential customers with fixed Internet access, as reported by the Body of European Regulators for Electronic Communications (BEREC) in 2010.

The concept of relevant market

- Austrian regulator's decision was based on its finding that "there is a residential broadband market at the retail level including DSL, CATV and mobile broadband", whereas there is a DSL only business retail market.
- This meant that there was effective and sustainable competition at the residential retail market, and that no more bit-stream regulation was required.
- In Ireland, however, a market review made in 2010 did not consider mobile broadband to be a suitable substitute for fixed broadband services.

The concept of relevant market

- According to BEREC, few customers in Ireland were found to have cancelled fixed Internet access connections in favour of mobile connections.
- Once the relevant market is defined, the next step is to establish whether any operator - or group of operators - holds SMP.

Operators with significant market power (SMP)

- In principle, SMP should reflect the ability of a firm to behave in ways that are detrimental to the interests of end users or that forecloses the market to accept more competition.
- Typical practices developed by SMP operators are setting excessive prices, delivering poor quality services, foreclosing the market to accept more competition, margin squeezing, price discrimination, predatory retail prices, wholesale services denial, collusion, etc.
- Those practices can be found in retail markets or in wholesale markets.

Operators with significant market power (SMP)

- However, forbidding them in wholesale markets, helps to increase competition and to avoid them in retail markets.
- Market share is sometimes considered a simple gauge to identify SMP operators.
- However, it doesn't prove too much.
- There could be a market with a single operator holding 80% of market share, for example, but if it is an open market, with low entry barriers, that operator could not be defined as SMP.

Identification of operators with SMP

- On the contrary, there could be a market with three large mobile telephony operators, holding each one about 32% of market share, and many MVNO holding the remaining 4%, and those three large operators could be defined as SMP.
- In addition to pure market share of an individual firm, measures such as the Hirschman-Herfindahl Index (HHI) are used to establish the market positions. Nevertheless, HHI measures market share.
- SMP is not strongly linked to market share.

Identification of operators with SMP

- In economic terms, an SMP operator is able to exploit customers without the fear of losing business to competitors, or to restrict competition without a credible threat of entry (ITU, 2011).
- Some countries have moved away from pre-determined market share thresholds, to focus on case-by-case assessments in a better attempt to identify SMP.
- According to the ITU World Telecommunication Regulatory Survey, many countries (Korea, UK, US, etc.) rely on a combination of several different measures and analysis when determining SMP.

Identification of operators with SMP

- Those measures include - but are not limited to - factors such as control of essential facilities, strength of consumers countervailing power, entry barriers and potential competition.

What must be regulated, how to regulate

- As a general principle, the scope of regulatory intervention should be limited to markets where competition is ineffective or cannot develop without some assistance that protects smaller firms and new entrants from being pushed aside by strong incumbents.
- Regulatory obligations should be imposed focused mainly on firms capable of distorting competition:

What must be regulated, how to regulate

Sharks eat small fishes but small fishes don’t eat sharks…

What must be regulated, how to regulate

A sound telecommunications industry should be like a forest, where large dominant operators (big trees) coexist with small operators and new entrants (insects): these last are essential to keep the forest alive, because they pollinate big trees!

What must be regulated, how to regulate

- Sometimes regulators loose valuable time and resources trying to impose obligations on small operators, or prosecuting them.
- What we have seen previously leads us to a question: should regulation be symmetrical or asymmetrical?
- By symmetrical regulation we mean that all operators (SMP and non-SMP) are treated equal and subject to common obligations.
- By asymmetrical regulation we mean that the focus of regulation is placed on SMP operators.

What must be regulated, how to regulate

- Another manifestation of asymmetrical regulation is when interconnection fees are not common but different (small operators charge more than SMP operators for call termination).
- Probably, asymmetrical regulation is a good tool, specially for a small or low resource regulator.
- Tariff asymmetry, however, may be acceptable only as a transitory tool.
- Another key issue is ex-ante versus ex-post regulation.

Should a regulator be also a competition authority?

- Best international practices consider separate institutions as telecommunications regulator and as competition authority.
- That is because their roles are complementary but different.
- Many telecommunications services are considered public services, and rendered therefore by private licensed operators who serve that specific purpose.
- Those operators act on behalf of the State; the regulator grants licenses and surveys that they meet their obligations.

Should a regulator be also a competition authority?

- In parallel, the regulator sets technical standards - when needed - and manages radio spectrum and development funds.
- On the other hand, competition authority must enforce competition law.
- However, enforcement of competition law is a relatively new task in the region (except in the US).
- Some countries don't still have competition laws.
- In those cases, a good solution is to add competition functions to the telecommunications regulator, as a transitory role.

Should a regulator be also a competition authority?

- If so, it also should be accompanied by introducing some antitrust regulation in the telecommunications law.
- Nevertheless, if the telecommunications regulator is separated from the competition authority, the first one is obligated to apply competition law in its decisions, and both are called to act in a complementary way.
- Ex-ante regulation belongs properly to regulators. Ex-post regulation - and more than regulation, market corrective measures - belongs properly to competition authorities.

Future regulatory risks

- A first problem regulators face today is excess of information.
- A regulator can literally drown in a sea of information.
- A second problem: Latin American laws tend to be too formalist (the letter of the law is usually above its spirit).
- It is inadequate for antitrust effectiveness, and opposite to common law (derecho anglosajón), where our antitrust laws come from.
- Most of our Civil Codes still state that if the letter of the law is clear, the spirit must be set aside. This could have been helpful in the 19th century, but not now.

Future regulatory risks

- A third problem is to not use market (price) signals.
- A fourth problem is regulatory capture, which is a very complex problem, and is not necessarily synonymous of corruption, neither of regulator employees fear when they face regulated companies.
- Capture occurs too when regulator employees think that certain industries are only for large-sized actors.
- Capture also occurs when regulator employees become identified with the interests of large regulated companies, considering - wrongly - that those interests coincide with nation interests.

Future regulatory risks

- And last, but not least, I feel that there is growing citizen unrest against market economy, despite its clear benefits.
- Personally, I think that insufficient competition and regulator capture are the main causes of that unrest and of abuses that today affect users.
- A clear example of the above is international roaming service, whose tariffs are quite disconnected from their costs, while regional regulators have not been able to correct it.

Thank you very much