

BARE MINIMUM :

HOW INDULGENCE IN REGULATION LIMITS USER RIGHTS IN KOREA



CONTENTS

1. INTRODUCTION	4
2. Brief History of Korean Telecommunications Companies and Market Landscape	5
3. Disclosure of Basic Terms of Service	11
4. Protection of Privacy	12
5. Absence of Net Neutrality Policy	17
6. Algorithmic System Development and Use	23
7. CONCLUSION	26

SUMMARY

BARE MINIMUM : How Indulgence in Regulation Limits User Rights in Korea

KT and SK Telecom showed similar patterns according to the results of index analysis. KT outperformed SK Telecom according to some indicators, but the difference was not significant. Two Korean telcos did relatively well on indicators in the privacy category. This success is due to their experience of major data leaks and regulations implemented after the data breaches. Their performances on indicators in the freedom of expression category were mediocre, mainly due to their failure to disclose policies regarding algorithmic systems. Their low performance regarding the algorithmic systems is disappointing, considering their recent emphasis on AI technology. The results of indicators about net neutrality were poor. Both companies failed to show commitment towards net neutrality.

1. INTRODUCTION

This report analyzes the main services of KT and SK Telecom (including the affiliate SK Broadband), Korea's major telecom firms, with RDR Methodology and intends to emphasize the importance of requiring improved corporate accountability. Two companies hold more than 60 percent market share combined in both the wired and wireless communication markets (see below for sources). The report overviews the formation of the Korean communications service market landscape and underscores how overdependence on regulatory legislation has caused Korean telecom companies' passivity and low accountability.

This report uses the method designed by Ranking Digital Rights, a research program of New America. RDR evaluates policies and practices of digital platforms such as Google, Meta, Twitter, and telecommunications like Vodafone, AT&T, and Telefónica.

RDR methodology is designed to assess companies in the three main categories: Governance, Freedom of expression and information, and Privacy. Indicators in the Governance category evaluate transparency, accountability, and corporate structure that the telecommunications companies employ to uphold digital rights. Indicators in the Freedom category scrutinize how companies handle issues related to freedom of expression and information by examining whether the companies challenge government requests for content removal and transparency on content moderation process. The Privacy category examines how telecommunications companies handle user data. It assesses whether the firms clearly disclose data collection, usage and sharing policies. It also evaluates the availability of processes for users to control the collection of their data and disposal of collected data.

Research subjects of this report are KT and SK Telecom, major telco corporations of Korea in both mobile and fixed-line communications market. Three companies dominate the Internet service market: KT, which owned ¹ 41.1 percent of the market share as of June 2023, SK Telecom, which owned 28.6 percent, and LG Telecom, which owned 21.1 percent. The same companies also control the mobile service market, 22 percent, 39.1 percent, 20.9 percent, respectively, as of June 2023.² Considering this market landscape, KT prepaid mobile service, postpaid mobile service, fixed-line broadband service, and AI speaker KT GIGA Genie were selected among KT's services. SK prepaid and postpaid mobile services, fixed-line broadband service, and AI speaker SKT NUGU were chosen among SK Telecom's services.

1. "Number of wired communication service subscribers as of June 2022" Ministry of Science and ICT, August 4, 2023, <https://www.msit.go.kr/bbs/view.do?sCode=user&mId=99&mPid=74&pageIndex=&bbsSeqNo=79&nnttSeqNo=3173564&searchOpt=ALL&searchTxt=>

2. "Number of wireless communication service subscribers as of June 2022" Ministry of Science and ICT, August 4, 2023, <https://www.msit.go.kr/bbs/view.do?sCode=user&mId=99&mPid=74&bbsSeqNo=79&nnttSeqNo=3173563>

2. Brief History of Korean Telecommunications Companies and Market Landscape

Until the 1980s, the Korean government had maintained a state monopoly on the communications market, conforming to the state led industrialization strategy. The Ministry of Information and Communication provided mobile communications service through Korea Telecom, a state-owned company that also monopolized the wired communications market. By the mid-1980s the government planned the segmentation of the communications market. The government established KMT (Korea Mobile Telecom Company) and separated the mobile communications domain from other KT services. Nevertheless, KMT was more of a subsidiary of KT rather than an independent entity. In the 1990s, Korea began to recognize the pressure to open the communications market and the need to adapt to the changing global information communications market landscape. Introducing competition to the market was implemented by selection of PCS (Personal Communications Service) network operator and privatization of KMT.³

The Korean government allowed domestic corporations to enter the communications market, intending to cultivate competitive domestic communications companies before foreign capital to enter the Korean market. In 1994, the government sold shares of KMT to SK Group and selected Shinsaegi Telecom as the second telecommunications service provider. In 1996, the government introduced more competitors in the telecommunications market by selecting KT Freetel, LG Telecom, and Hansol PCS as the PCS service providers.⁴ Nevertheless, SK Telecom merged with Shinsaegi Telecom and KT Freetel merged with Hansol PCS in 1999, forming the current market landscape of three major corporations dominating the market.⁵ This oligopoly limits market competition and enables extensive communications surveillance by the government.

Note the lack of competition in the mobile market relative to other countries.⁶ Notice that the competition in Korea was lowest (measured in HHI) among the big (more than 20 million in population) developed countries in mobile telecommunications.

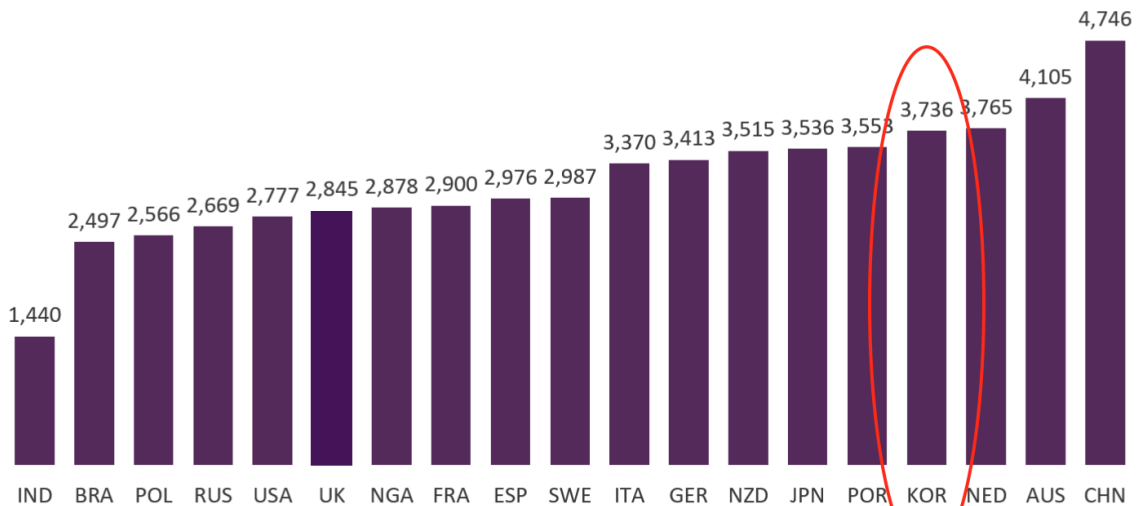
3. Jho, Whasun. 2003. From Monopoly to New Governance. *The Korea Association for Policy Studies*, 37(5), pg 447

4. Choi, Hyung-jin. 2019. History of Korean Mobile Communications and Satellite Communications. *Information and Communications Magazine*, 36(4), pg 43.

5. Choi, pg 45

6. Ofcom, *International Communications Market 2017: Telecoms and Networks* (2017)

Figure 39 Mobile market HHI, MNOs (including wholesale and hosted MVNOs): end 2016



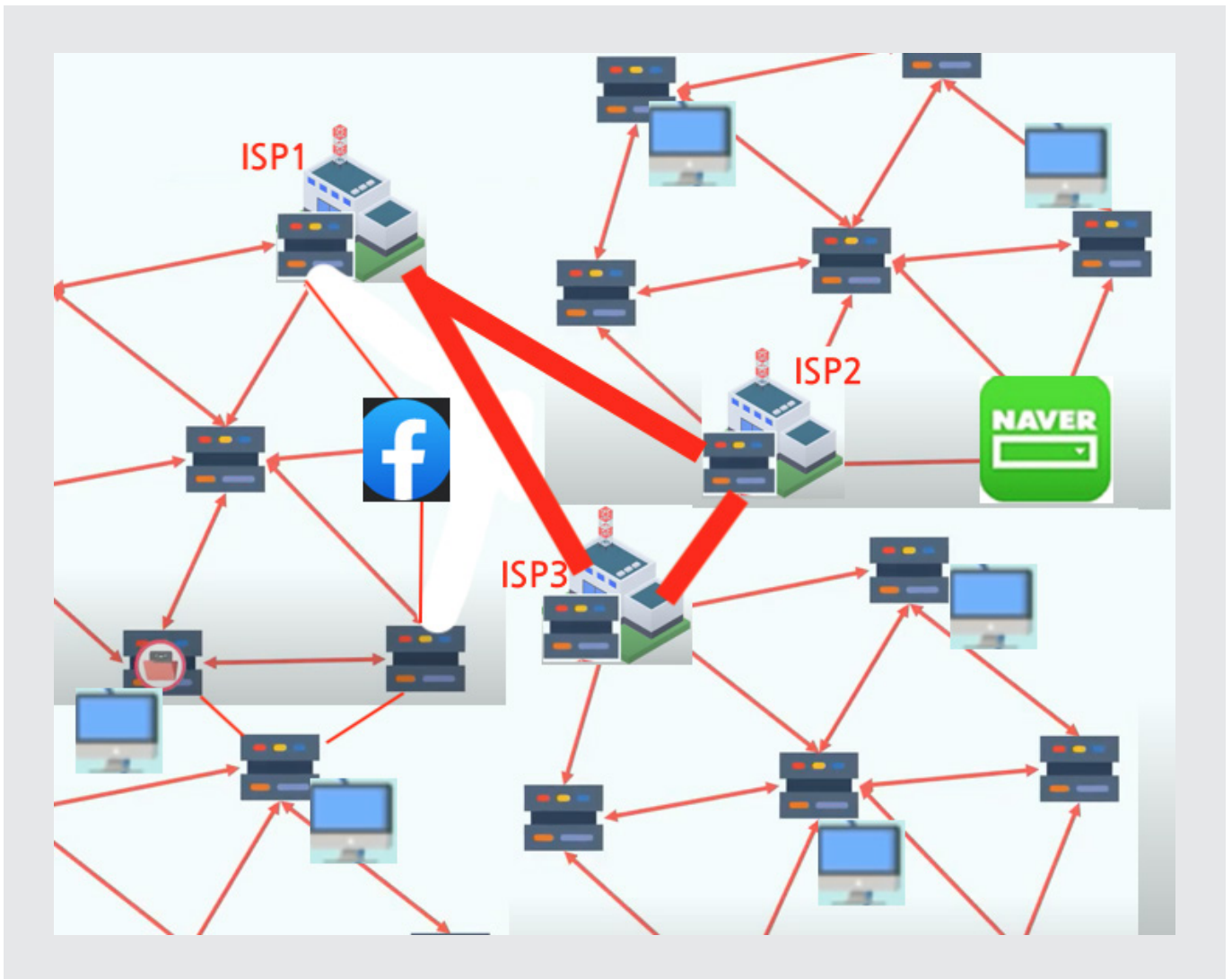
Source: IHS Markit

Note: All figures have been rounded to the nearest whole number.

The Korean communications market has been under centralized governance, in which the state acts as a strategic planner and cooperates with the private sector as the superior, since the 1980s.⁷ This state - corporate dynamics and lack of market competition seems to be causing indulgence in regulation and passivity of telco companies in terms of human rights protection and accountability.

Such phenomenon is especially pronounced in the field of net neutrality. Since early 2016, the Korean government has required the ISPs to charge one another for traffic that they send to other ISPs (sending party network pays rule or SPNP). Such a rule creates financial burdens on those ISPs sending more data than receiving. The law itself is applicable only among ISPs but the burden can easily trickle down to the content providers because the ISPs now have incentives not to host popular content providers on their network who otherwise will end up sending more data to the users hosted on other ISPs's networks. (In the diagram below, ISP 2 hosting NAVER will have to pay money to ISP 1 and ISP 3 because the internet users in ISP 1 and ISP 3 will want to access NAVER's contents.)

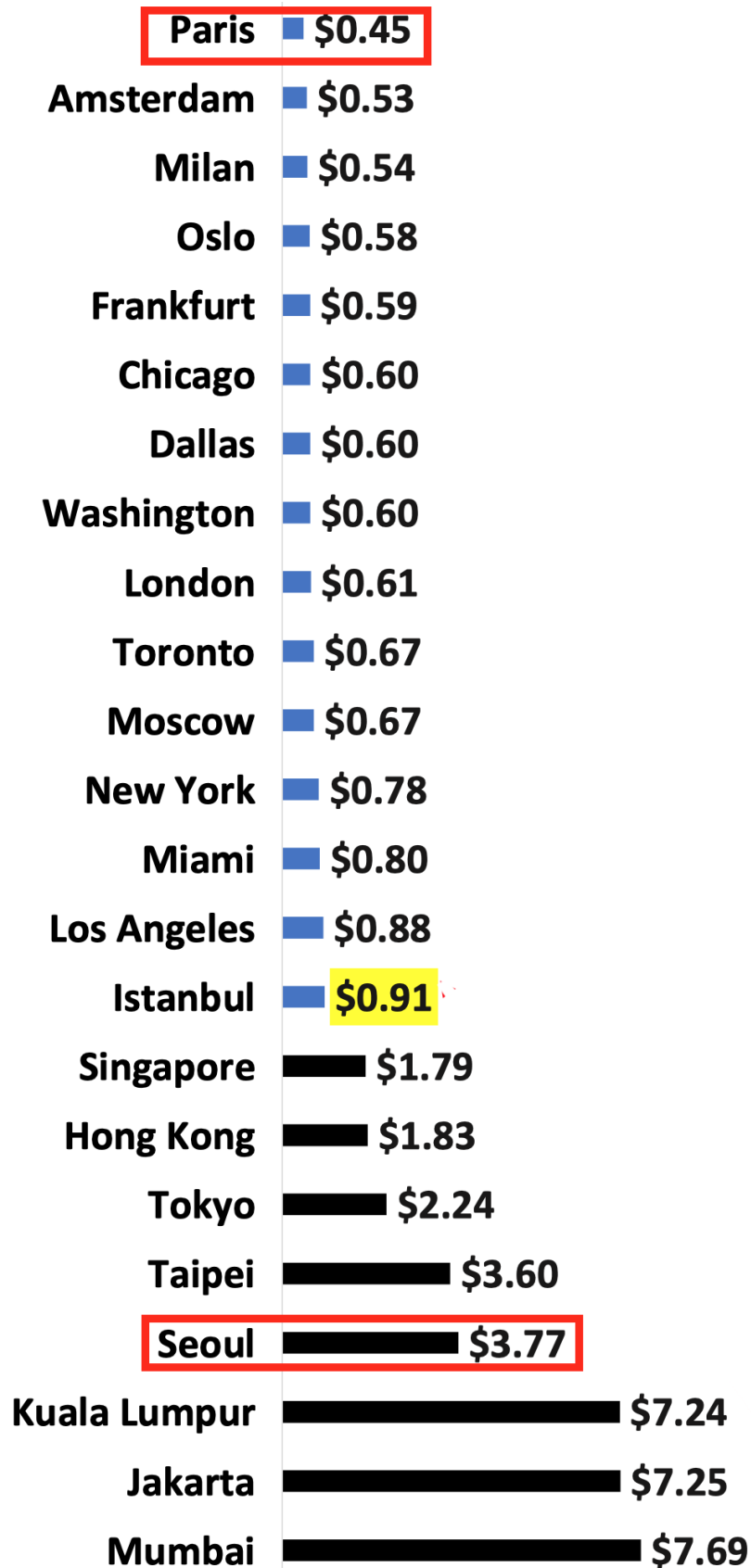
7. Jho, pg 445

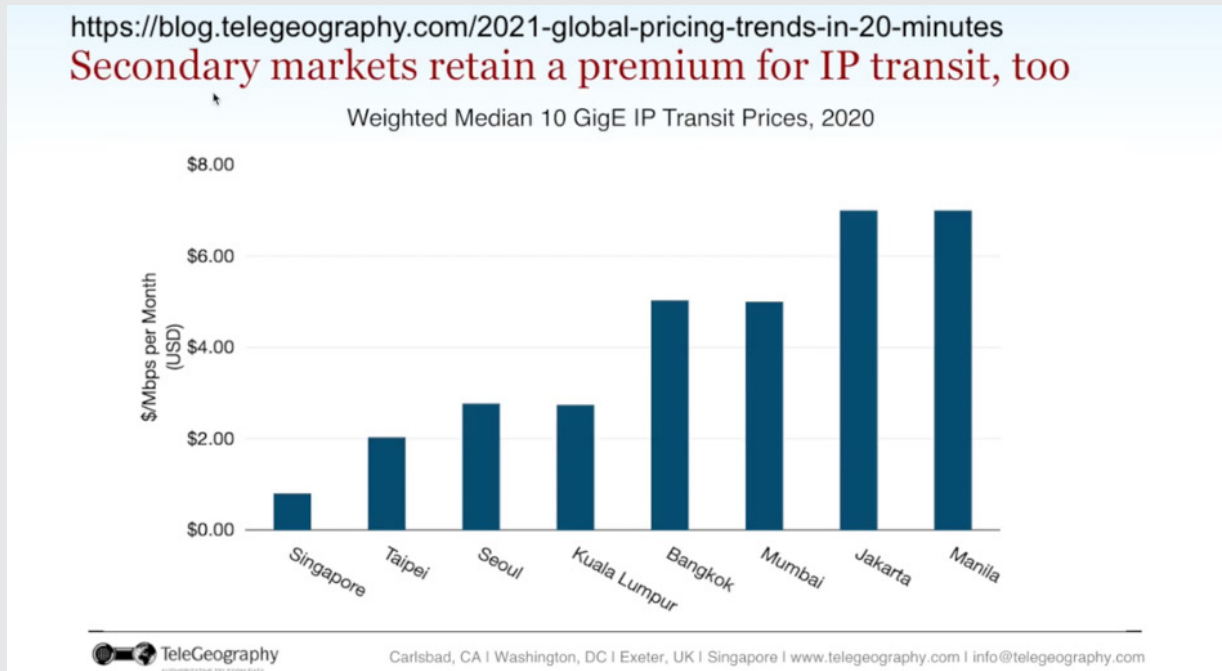


(c) K.S. Park

As a result, ISPs will push down their SPNP settlement cost to the content providers by charging higher internet access fees. The end result is alarming: According to Telegeography, the weighted median cost of Internet connection of 1 Mbps in Seoul is 8.3 times Paris and 4.8 times New York.⁸

8. Abu Saeed Khan, Breaking the barriers of Broadband in Asia-Pacific, Joint Session of AP-IS Steering Group and Asian Highway, 12 December 2017, <https://www.unescap.org/sites/default/files/Breaking%20the%20barriers%20of%20Broadband%20in%20Asia-Pacific%2C%20LIRNEasia.pdf>

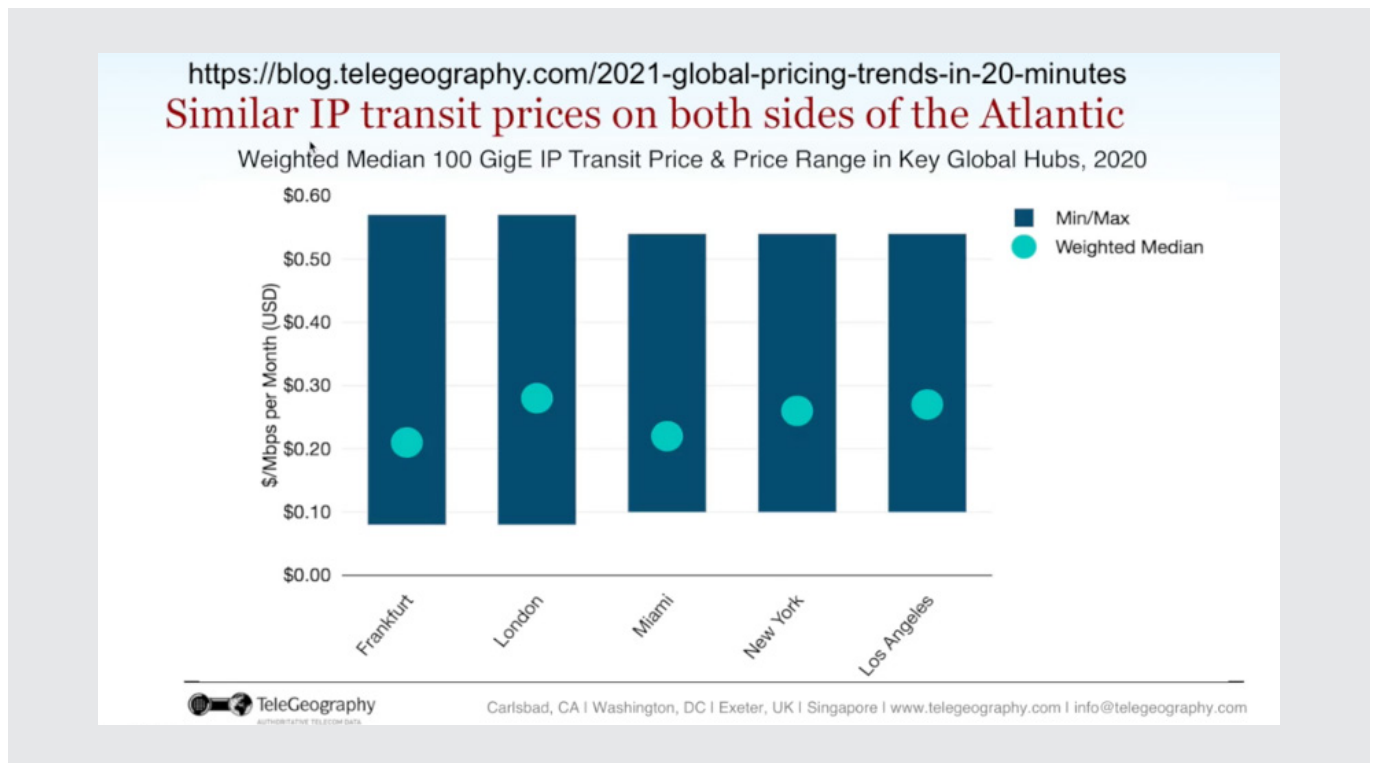




It is not just the high fees that content providers have to pay that we are worried about. Many users depend on these content providers to communicate with one another. SPNP taxes on freedom of speech because it charges ISPs in proportion to the data sent, who has already pushed down the costs to content providers. Content providers buying internet access from these ISPs can push down the costs to their users either by charging money or by intentionally degrading their services to reduce the traffic throughput. In the end, SPNP will threaten the Internet's promise of allowing individuals to send their messages to all around the world without worrying about the cost of delivering the messages.

The trends have continued to date. According to TeleGeography, the cost of transit (internet access fees for content providers) in Seoul is typically eight to ten times that of major European network hubs like London and Frankfurt.⁹

⁹ TeleGeography's annual bandwidth pricing review from 2021, especially slide 17, available here: <https://blog.telegeography.com/2021-global-pricing-trends-in-20-minutes>



Elsewhere in Asia, technological improvements in optical fiber network technology and vigorous competition are leading the cost of transit to fall about 20 percent per year.¹⁰ That is simply not happening in Korea, in part due to the added costs imposed by these interconnection fees.

Unfortunately, the Korean government has not learned lessons from other attempts to switch to a SPNP model, particularly in Europe. In 2012, the European Telecommunications Network Operators (ETNO) group suggested that the United Nations' International Telecommunication Union recommend that national governments adopt the SPNP model. The reaction to this proposition was rapid and unequivocal. The Body of European Regulators for Electronic Communications (BEREC) rejected the whole idea of trying to regulate interconnection costs because "ETNO's proposed end-to-end SPNP approach to data transmission is totally antagonistic to the decentralized efficient routing approach to data transmission of the Internet. The connection-oriented nature of end-to-end SPNP, with its focus on charging based on the actual volumes or value of the traffic, would represent a dramatic change from the existing charging framework operating on the Internet."¹¹ Additionally, BEREC stated that "If 'bill & keep' were to be replaced by SPNP then the ISP providing access could exploit the physical bottleneck for traffic exchange and derive monopoly profits, requiring regulatory intervention." Basically, these regulators concluded that the ETNO proposal would threaten the market's ability to sort out how much each network pays other networks to accept its customers' traffic. As a result, the ETNO proposal went nowhere.

But unfortunately, the situation is getting worse not better. Rather than reversing course, in May 2020, Korea's National Assembly approved the Content Providers' Traffic Stabilization Law, which goes beyond the SPNP rules adopted by the country's telecommunications regulator.¹² This new law required large content providers to shoulder the responsibility of ensuring reliable access to their content, which had been the responsibility of ISPs everywhere else. In 2020, several bills were sponsored which, if adopted, would entrench the SPNP model even further by making the end-users of the network such as content providers the direct payors of the SPNP payment.

¹⁰. Id.

¹¹. Body of European Regulators and Electronics Communications, "BEREC's Comments on the ETNO Proposal for ITU/WCIT or Similar Initiatives Along These Lines," November 14, 2012, <https://www.berec.europa.eu/en/document-categories/berec/others/berecs-comments-on-the-etno-proposal-for-ituwcit-or-similar-initiatives-along-these-lines>

¹². Yonhap, "Netflix Pressed to Share Network Costs in S. Korea," Korea Herald, May 21, 2020, <http://www.koreaherald.com/view.php?ud=20200521000754>

3. Disclosure of Basic Terms of Service

Both companies provided basic terms of service and policies. They were fairly easy to find and understand. Both companies received near perfect scores on F1a, P1a indicators.

F1a. Access to terms of service : The company should offer terms of service that are easy to find and easy to understand.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	P	Y	Y	83.3%
	KT GIGA Genie	P	Y	Y	83.3%
SK Telecom	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	Y	Y	Y	100%
	SKT NUGU	Y	Y	P	83.3%

F1a.1 Are the company's terms of service easy to find?

F1a.2 Are the terms of service available in the primary language(s) spoken by users in the company's home jurisdiction?

F1a.3 Are the terms of service presented in an understandable manner?

P1a. Access to privacy policies : The company should offer privacy policies that are easy to find and easy to understand.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	Y	Y	Y	100%
	KT GIGA Genie	Y	Y	Y	100%
SK Telecom	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	Y	Y	Y	100%
	SKT NUGU	Y	Y	Y	100%

P1a.1 Are the company's privacy policies easy to find?

P1a.2 Are the privacy policies available in the primary language(s) spoken by users in the company's home jurisdiction?

P1a.3 Are the policies presented in an understandable manner?

Nevertheless, advertising content policies of both companies were not found. Both companies received zero credit on the F1b index.

4. Protection of Privacy

4.1. Communications Surveillance and Protection of Privacy

Communications surveillance is conducted through three systems in general, excluding the search and seizure. “*Communication confirmation data provision*” and “Communication - restricting measures” prescribed in *Protection of Communications Act* and “Communications data provision” prescribed in *Telecommunications Business Act*.

Investigation agencies can request telecommunications service providers “communication confirmation data” which includes the date and time of telecommunications, the subscriber number of the outgoing and incoming call and the subscriber number of the other party, the computer communications or Internet log records relating to the facts that the user of computer communications or the Internet have used the telecommunications services, the data on tracing the location of information communications apparatus connecting to the information communications networks, and the data tracing a location of connectors (Article 2, 13 *Protection of Communications Act*).

Investigation agencies can also request communications data, which include personal information of users such as name, address, phone number, and resident registration number (Article 83(3) *Telecommunications Business Act*).

“Communication-restricting measures” comprise of censorship of mail or wiretapping of telecommunications (Article 2, 3(2) *Protection of Communications Act*).

In July, 2022, the Constitutional Court decided that article 83(3) of the *Telecommunications Business Act* authorizing communication data provision is unconstitutional because it does not include any notification process even after the provision of data and thus violates the due process of law. Nevertheless, the Court found it constitutional without requiring a warrant because the provision of data is not compulsory.¹³

As reaffirmed by the Constitutional Court, the telecommunications companies are not legally obliged to provide communications data when requested. Naver and Kakao, online platform service providers, stopped providing data in 2012 when a lower court ordered them to compensate for damages created by providing personal information of users to the investigative agencies.¹⁴ SK Telecom and KT, on the other hand, continue to comply with the requests in detriment to the users’ privacy.

P10a and P11a indicators analyze the process for responding to the government requests for user information and whether the company discloses the fact that user information has been thus provided. Both KT and SK Telecom disclose the number of communications data requests and communications confirmation data requests. KT discloses that they comply with every provision request. But both companies do not disclose the process of such data provisions. SK Telecom states that internal reviews are conducted to minimize the risk of human rights infringements, but does not disclose any information about the process of decision making in responding to government requests.

¹³. 2016 hun-ma 388, 2022 hun-ma 126, Constitutional Court of Korea (21 July, 2022)

¹⁴. 2021 Korea Internet Transparency Report, pg 8~23.

P10a. Process for responding to government demands for user information :
The company should clearly disclose its process for responding to governments demands for user information.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3 ¹⁵	4	5	6	7	Score
KT	Prepaid mobile	N	N	N	Y	N	N	N	14.29%
	Postpaid mobile	N	N	N	Y	N	N	N	14.29%
	Fixed-line broadband	N	N	N	Y	N	N	N	14.29%
	KT GIGA Genie	N	N	N	Y	N	N	N	14.29%
SK Telecom	Prepaid mobile	N	N	N	Y	Y	Y	N	42.86%
	Postpaid mobile	N	N	N	Y	Y	Y	N	42.86%
	Fixed-line broadband	N	N	N	Y	Y	Y	N	42.86%
	SKT NUGU	N	N	N	Y	Y	Y	N	42.86%

P10a.1 Does the company clearly disclose its process for responding to non-judicial government demands?

P10a.2 Does the company clearly disclose its process for responding to court orders?

P10a.3 Does the company clearly disclose its process for responding to government demands from foreign jurisdictions?

P10a.4 Do the company's explanations clearly disclose the legal basis under which it may comply with government demands?

P10a.5 Does the company clearly disclose that it carries out due diligence on government demands before deciding how to respond?

P10a.6 Does the company commit to push back on inappropriate or overbroad government demands?

P10a.7 Does the company provide clear guidance or examples of implementation of its process for government demands?

P11a. Data about government demands for user information :
The company should regularly publish data about government demands for user information.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	6	7	8	9	10	Score
KT	Prepaid mobile	N	Y	Y	Y	Y	Y	Y	N	Y	Y	60%
	Postpaid mobile	N	Y	Y	Y	Y	Y	Y	N	Y	Y	60%
	Fixed-line broadband	N	Y	Y	Y	Y	Y	Y	N	Y	Y	60%
	KT GIGA Genie	N	Y	Y	Y	Y	Y	Y	N	Y	Y	60%
SK Telecom	Prepaid mobile	N	Y	N	Y	N	Y	Y	N	Y	N	40%
	Postpaid mobile	N	Y	N	Y	N	Y	Y	N	Y	N	40%
	Fixed-line broadband	N	Y	N	Y	N	Y	Y	N	Y	N	40%
	SKT NUGU	N	Y	N	Y	N	Y	Y	N	Y	N	40%

P11a.1 Does the company list the number of government demands it receives by country?

P11a.2 Does the company list the number of government demands it receives for stored user information and for real-time communications access?

P11a.3 Does the company list the number of accounts affected?

P11a.4 Does the company list whether a demand sought communications content or non-content or both?

P11a.5 Does the company identify the specific legal authority or type of legal process through which law enforcement and national security demands are made?

¹⁵ Kakao Data on category 3 could not be found on 2022 Global RDR data collection. But according to the 2023 local version of RDR research, Kakao is providing the process to the foreign government requests.

- P11a.6** Does the company include government demands that come from court orders?
- P11a.7** Does the company list the number of government demands it complied with, broken down by category of demand?
- P11a.8** Does the company list what types of government demands it is prohibited by law from disclosing?
- P11a.9** Does the company report this data at least once per year?
- P11a.10** Can the data reported by the company be exported as a structured data file?

The Korean government does not disclose the numbers on search and seizure conducted on the telecommunications companies. Only two major platform companies, Naver and Kakao, voluntarily disclose the searches and seizures conducted on their users through transparency reports.

4.2. Security and Protection of Privacy

Both companies received full credit for P13, which analyze whether the company has and discloses institutional processes to ensure security. Personal information of 8.7 million KT users was leaked in July 2012.¹⁶ In 2014, data of 9.81 million users was leaked after KT's website was compromised by hackers.¹⁷ Also in 2011, personal information of 35 million users was leaked from SK Communications, a subsidiary of SK Telecom.¹⁸ Series of data breaches led to harsh scrutiny, regulations, and two companies' high scores on the P13 indicator.

P13. Security Oversight: The company should clearly disclose about its institutional processes to ensure the security of its products and services.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	Y	Y	Y	100%
	KT GIGA Genie	Y	Y	Y	100%
SK Telecom	Prepaid mobile	Y	Y	Y	100%
	Postpaid mobile	Y	Y	Y	100%
	Fixed-line broadband	Y	Y	Y	100%
	SKT NUGU	Y	Y	Y	100%

- P13.1** Does the company clearly disclose that it has systems in place to limit and monitor employee access to user information?
- P13.2** Does the company clearly disclose that it has a security team that conducts security audits on the company's products and services?
- P13.3** Does the company clearly disclose that it commissions third-party security audits on its products and services?

Nevertheless, scores on P14 and P15 were low. P14 evaluates the company's response after security vulnerabilities are discovered and P15 analyzes the process for responding to data breaches. Low

¹⁶ "KT ordered to pay 100,000 won each to data-leak victims." Yonhap News Agency, 22 August, 2014, <https://en.yna.co.kr/view/AEN20140822002800320>

¹⁷ Kang, Yoon-seung, "KT maintains 'no compensation' policy for data leakage." Yonhap News Agency, 14 March, 2014, <https://en.yna.co.kr/view/AEN20140314006700320>

¹⁸ Kim, Myung-hwan, "Nate was compromised by a new hacking method." Maeil Business Newspaper, 31 July, 2011, <https://www.mk.co.kr/news/business/4965424>

scores on P14 and P15 demonstrates passivity of these telecommunications companies and that their commitment to user data security needs to be questioned. Both companies failed to disclose specific processes or clear commitment for data security.

P14. Addressing Security Vulnerabilities :

The company should address vulnerabilities when they are discovered.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	Y	P	Y	50%
	Postpaid mobile	Y	P	Y	50%
	Fixed-line broadband	Y	P	Y	50%
	KT GIGA Genie	Y	P	Y	50%
SK Telecom	Prepaid mobile	Y	Y	Y	0%
	Postpaid mobile	Y	Y	Y	0%
	Fixed-line broadband	Y	Y	Y	0%
	SKT NUGU	Y	Y	Y	0%

P14.1 Does the company clearly disclose that it has a mechanism through which security researchers can submit vulnerabilities they discover?

P14.2 Does the company clearly disclose the timeframe in which it will review reports of vulnerabilities?

P14.3 Does the company commit not to pursue legal action against researchers who report vulnerabilities within the terms of the company's reporting mechanism?

P15 Data Breaches: The company should publicly disclose about its processes for responding to data breaches

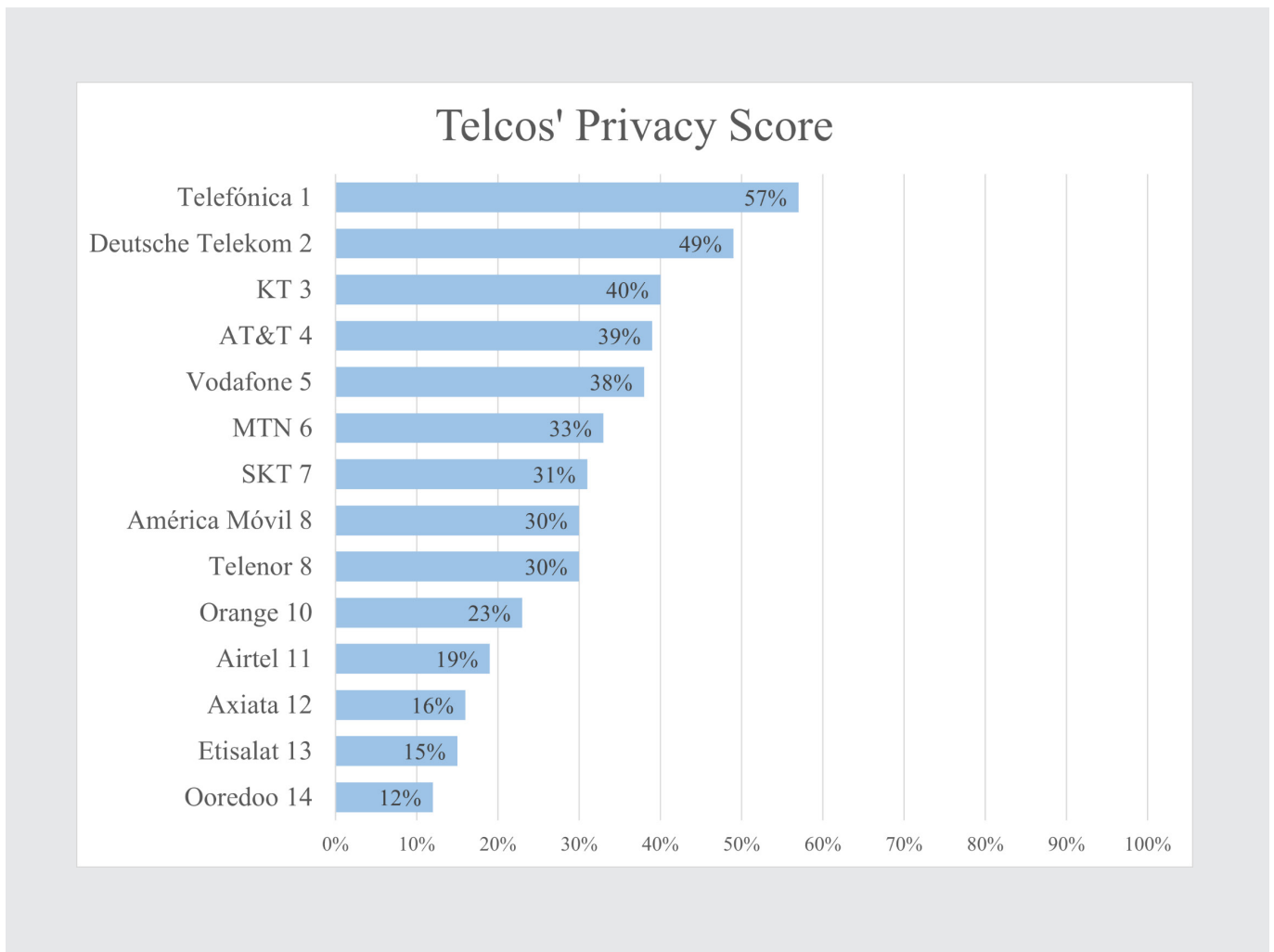
Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	N	N	Y	33.33%
	Postpaid mobile	N	N	Y	33.33%
	Fixed-line broadband	N	N	Y	33.33%
	KT GIGA Genie	N	N	Y	33.33%
SK Telecom	Prepaid mobile	N	N	N	0%
	Postpaid mobile	N	N	N	0%
	Fixed-line broadband	N	N	N	0%
	SKT NUGU	N	N	N	0%

P15.1 Does the company clearly disclose that it will notify the relevant authorities without undue delay when a data breach occurs?

P15.2 Does the company clearly disclose its process for notifying data subjects who might be affected by a data breach?

P15.3 Does the company clearly disclose what kinds of steps it will take to address the impact of a data breach on its users?



Overall, KT and SK Telecom received the overall scores of 40.5 and 31 respectively for the privacy area. This would have constituted the 3rd place and the 7th place in the RDR's Giant Telcos ranking. KT and SK Telecom were weak on P10a (disclosure of processes handling governments' demands for user data) and P1b (disclosure of algorithmic system development policies). The low score under P10a was particularly pronounced when KT and SK Telecom have continued to fill the requests for communications data despite the 2022 Constitutional Court's decision that found no obligation to fill those requests while Naver and Kakao the platform operators have steadfastly refused those requests since 2013.

5. Absence of Net Neutrality Policy

KT and SK Telecom also did not fare well on their commitment to protect users' access rights to their personal data

(P8: KT 35 and SK Telecom 14.29). Indeed KT was sued in 2019 by a user, Open Net's staff attorney, for not providing the cell tower location tracking data of her phone.

KT and SK Telecom did not show any commitment to net neutrality, scoring 8.3 and 0 respectively at average on the relevant F9 indicator. KT and SK Telecom only stated in their policies that they may engage in 'reasonable network traffic management' under the government's Net Neutrality Guideline and the Reasonable Traffic Management Standard. They did not state any affirmative commitment to uphold the values and principles of net neutrality.

F9. Network management: The company should clearly disclose that it does not prioritize, block, or delay certain types of traffic, application, protocols, or content for any reason beyond assuring quality of service and reliability of the network.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	N	N	N	0%
	Postpaid mobile	N	Y	N	33.33%
	Fixed-line broadband	N	N	Y	33.33%
	KT GIGA Genie	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	0%
	Postpaid mobile	N	Y	Y	66.67%
	Fixed-line broadband	N	Y	Y	66.67%
	SKT NUGU	N	N	N	0%

F9.1 Does the company clearly disclose a policy commitment to not prioritize, block, or delay certain types of traffic, applications, protocols, or content for reasons beyond assuring quality of service and reliability of the network?

F9.2 Does the company engage in practices, such as offering zero-rating programs, that prioritize network traffic for reasons beyond assuring quality of service and reliability of the network?

F9.3 If the company does engage in network prioritization practices for reasons beyond assuring quality of service and reliability of the network, does it clearly disclose its purpose for doing so?

This is disconcerting because the two companies have engaged in various net neutrality violations in the past. In 2012, when the first smart TVs arrived in the Korean market allowing people to access the internet and all its video streaming products, KT demanded that Samsung pay 'network usage' fees and blocked the traffic to its smart TVs when Samsung refused very appropriately saying¹⁹ :

KT's decision goes against the principle of network neutrality, under which consumers can use services without discrimination. Moreover, we need to verify whether smart TVs actually cause excessive data traffic.

The blockage was removed only after the country's regulator Korean Communication Commission threatened the regulatory action.

¹⁹. <https://www.theverge.com/2012/2/10/2788755/KT-samsung-smart-tv-south-korea-network-block>

In 2015, KT also completely blocked P2P grid traffic²⁰ originating from as many as 575 IP addresses of the so called “web-hard” companies. Although KT tried to justify it as “reasonable traffic management” against heavy users, such action did not make sense because the P2P grid services, linking online resources close to one another, actually reduce the network traffic considerably. The fact that only “web-hard” companies, the sources of many film files, was singled out suggests that there might have been a similar motive behind as Comcast’s 2008 blockage of Bit Torrent traffic which earned the following passage from Federal Communication Commission :

BitTorrent file sharing had become a competitive threat to cable operators such as Comcast because Internet users have the opportunity to view high-quality video with BitTorrent that they might otherwise watch (and pay for) on cable television.

Indeed, KT was providing film streaming through its IPTV services at the time. Although the court refused to remove the blockade on a shaky reasoning that many files distributed to the P2P traffic were pirated and that KT had the power to remove illegal traffic from the network – shaky because of the significant non-fringing usage of the web-hard services and the lack of any finding of the infringing usage.

Since 2012 and for an unknown period until 2020, KT and SK Telecom also throttled the traffic of Kakao Talk’s voice calls for the calling plans with low data caps²¹, clearly showing their motives to protect the expected decrease in their voice telephony revenues and even asking the regulator to shut down Kakao Talk’s voice services.²² Users could not use their data allotment for the service they desired only because of KT and SK Telecom’s desires. Again, the court ended up accepting their arguments for “reasonable traffic management” but the entire discourse did not involve any announcement on KT or SK Telecom’s part in relation to the norm of net neutrality.

Between 2014-2018, SK Telecom favored its affiliate contents, the online shopping mall 11st Street, by not imposing the consumer-side internet access fees²³ which consumers have to pay to access all other services. Thanks to this nudge, 11st Street became the number two in the online shopping mall industry as soon as it entered the market, a rare scenario which showed the power of self-preferencing by ISPs.

Against this background, KT and SK Telecom SKT scored very poorly in all indicia of corporate accountability in the norm of net neutrality (F9). As to the general statement of commitment to net neutrality(F9), KT & SK Telecom have not made any such commitment. AT&T states that it does not prioritize, block, or delay traffic beyond practices needed to address network security threats or accommodate emergency or national security demands.²⁴ And Telefónica states "As part of our commitment to Privacy and Freedom of Expression, at Telefónica we do not prioritize, block, or delay certain types of traffic, applications, protocols, or content for reasons assuring quality of service and reliability of the network" on its Privacy and Security Center page.²⁵ The Korean telcos have merely stated the possibility of “traffic management” and that they will notify when such measures are implemented.

20. <https://www.opennetkorea.org/en/wp/1529>

21. <https://thenextweb.com/news/it-looks-like-korean-mobile-operators-are-throttling-free-call-service-kakao-talk>

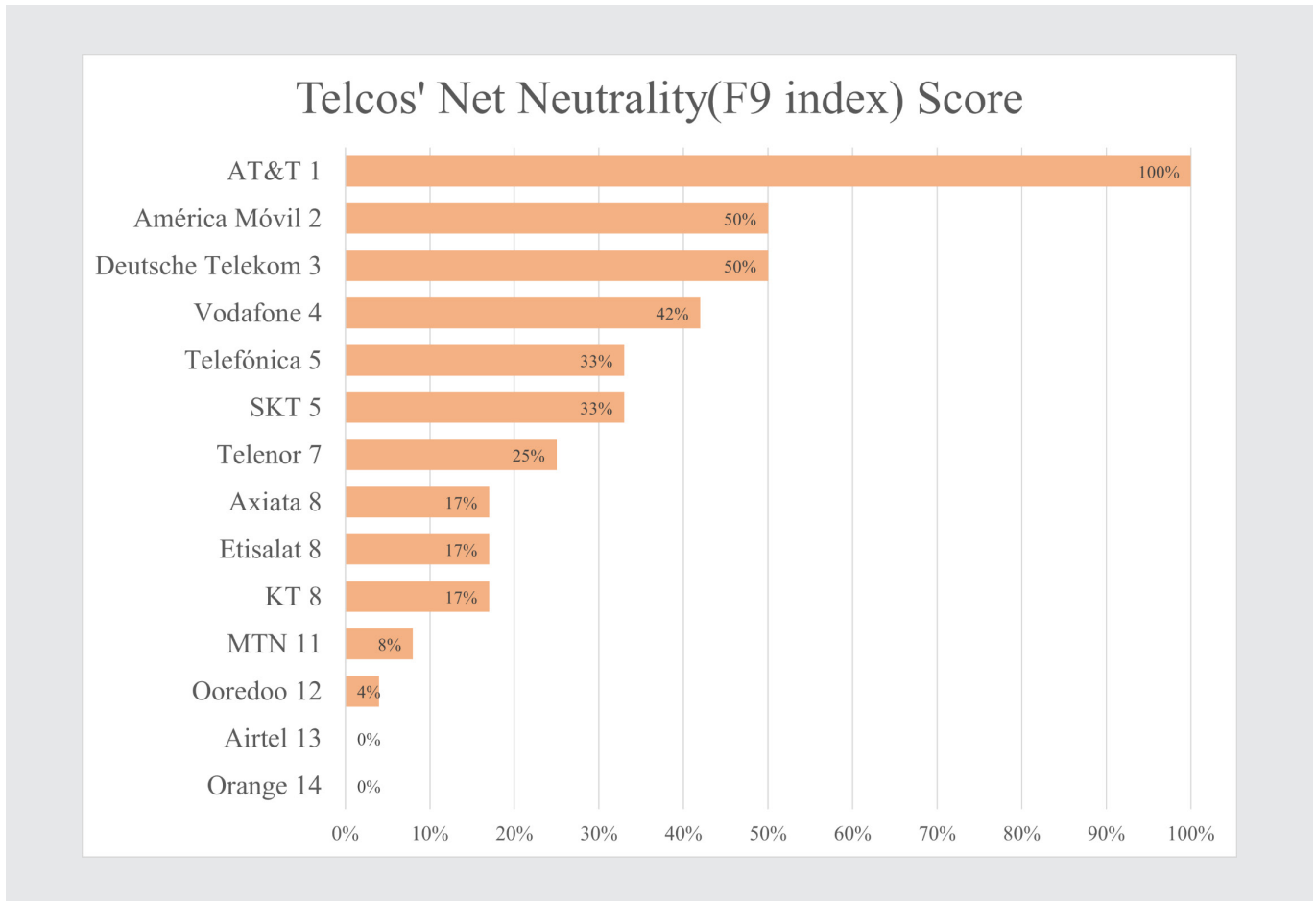
22. https://www.koreatimes.co.kr/www/tech/2023/09/129_112484.html Mobile carriers urge KCC to block Kakao's free phone service

23. <https://www.opennetkorea.org/en/wp/2633>

24. <https://about.att.com/sites/broadband/network>

25. https://www.telefonica.com/en/web/about_telefonica/privacy-centre/privacy

As a result, KT and SK Telecom received 16.67 and 33.34 respectively under the net neutrality indicator (F9) which would have ranked them 8th and 5th in the Giant Telcos ranking. Against the background of the serious net neutrality violations in the past, it would have been reassuring for KT and SK Telecom to include in the policies the statements such as ‘we will not preference our or our affiliates’ contents in managing or charging for network access’ or ‘we will not discriminate the traffic or any part of it to protect the revenues of our or affiliates’.



In addition, Open Net added three (3) new indicia relating to G4f (termination charges), G4g (specialized services), and G4h (self-preferencing).

Termination charges are the fees that telephone companies used to charge one another whereby the telephone company of a caller compensates the telephone company of a receiver for terminating (i.e., connecting with the receiving end of) the call. Such “sender pay” scheme involved enormous transaction costs of tracking each call, measuring its duration, and billing each of the sending telephone company and ultimately the caller. The internet became the alternative to such an arrangement and allowed the information revolution (please review annex at the end of this report), giving people everywhere robust and massive access to knowledge and mass communication. So this indicator was checking whether the companies make commitment not try to charge the sender pay fees.

Specialized services are the services whereby traffic is prioritized above the general internet traffic usually for payment to enable special services sensitive to speed and latency. Net neutrality norms such as EU’s Open Internet Regulation allows such prioritization only if such services are enabled in

the redundant and resourceful bandwidth so that they do not “adversely affect” the performance of the general internet traffic. This indicator is checking whether the companies make commitment not to prioritize traffic against this norm.

Self-preferencing is the behavior of the telcos preferring the contents of their own or their affiliates. Net neutrality norms already ban ISPs’ prioritization for any reason but prioritization for self-interest is deemed clearly off-limit. This indicator is checking whether the companies make commitment not to prioritize traffic against this norm.

As to the termination charges (G4f), neither KT nor SK Telecom made any commitment. To the contrary, they have supported the so-called “network usage fees” bills which will extend the scope of SPNP (see above) to include content providers as the legal duty-bearers of the fees.

As to the specialized services (G4g), KT at least made a vague reference to the need for caution in developing specialized services while SK Telecom did not even do that.

As to the self-preferencing (G4h), SK Telecom should consider removing any concern that people may have about its past in preferencing its own affiliate online shopping mall disrupting competition back in 2014-2018.

G4f. Impact Assessment: Termination Charges: If the company engages in termination charges (i.e., sender pay rule, sending party network pays rule, data delivery charges), it should conduct regular, comprehensive, and credible due diligence, such as through robust human rights impact assessments, to identify how all aspects of its termination charge policies and practices affect users’ fundamental rights to freedom of expression and information, to privacy, and to freedom from discrimination, and to mitigate any risks posed by those impacts.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	6	7	8	Score
KT	Prepaid mobile	N	N	N	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	N	N	N	0%
	KT GIGA Genie	N	N	N	N	N	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	N	N	N	0%
	SKT NUGU	N	N	N	N	N	N	N	N	0%

G4f.1 Does the company assess freedom of expression and information risks associated with its termination charges?

G4f.2 Does the company assess privacy risks associated with its termination charges?

G4f.3 Does the company assess discrimination risks associated with its termination charges?

G4f.4 Does the company conduct additional evaluation wherever the company’s risk assessments identify concerns?

G4f.5 Do senior executives and/or members of the company’s board of directors review and consider the results of assessments and due diligence in their decision-making?

G4f.6 Does the company conduct assessments on a regular schedule?

G4f.7 Are the company’s assessments assured by an external third party?

G4f.8 Is the external third party that assures the assessment accredited to a relevant and reputable human rights standard by a credible organization?

G4g. Impact assessment: Specialized or Managed Services: If the company engages in specialized or managed services (i.e., prioritized lanes, “managed services”), it should conduct regular, comprehensive, and credible due diligence, such as through robust human rights impact assessments, to identify how all aspects of its specialized/managed services policies and practices affect users’ fundamental rights to freedom of expression and information, to privacy, and to freedom from discrimination, and to mitigate any risks posed by those impacts.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	6	7	8	Score
KT	Prepaid mobile	P	Y	Y	Y	Y	Y	N	N	68.75%
	Postpaid mobile	P	Y	Y	Y	Y	Y	N	N	68.75%
	Fixed-line broadband	P	Y	Y	Y	Y	Y	N	N	68.75%
	KT GIGA Genie	P	Y	Y	Y	Y	Y	N	N	68.75%
SK Telecom	Prepaid mobile	N	N	N	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	N	N	N	0%
	SKT NUGU	N	N	N	N	N	N	N	N	0%

- G4g.1** Does the company assess freedom of expression and information risks associated with its specialized services?
- G4g.2** Does the company assess privacy risks associated with its specialized services?
- G4g.3** Does the company assess discrimination risks associated with its specialized services?
- G4g.4** Does the company conduct additional evaluation wherever the company’s risk assessments identify concerns?
- G4g.5** Do senior executives and/or members of the company’s board of directors review and consider the results of assessments and due diligence in their decision-making?
- G4g.6** Does the company conduct assessments on a regular schedule?
- G4g.7** Are the company’s assessments assured by an external third party?
- G4g.8** Is the external third party that assures the assessment accredited to a relevant and reputable human rights standard by a credible organization?

G4h. Impact assessment: Self-Preferencing: If the company engages in self-preferencing, it should conduct regular, comprehensive, and credible due diligence, such as through robust human rights impact assessments, to identify how all aspects of its self-preferencing policies and practices affect users’ fundamental rights to freedom of expression and information, to privacy, and to freedom from discrimination, and to mitigate any risks posed by those impacts.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	6	7	8	Score
KT	Prepaid mobile	N	N	N	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	N	N	N	0%
	KT GIGA Genie	N	N	N	N	N	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	N	N	N	0%
	SKT NUGU	N	N	N	N	N	N	N	N	0%

- G4h.1** Does the company assess freedom of expression and information risks associated with its self-preferencing policies?
- G4h.2** Does the company assess privacy risks associated with its self-preferencing policies?
- G4h.3** Does the company assess discrimination risks associated with its self-preferencing policies?
- G4h.4** Does the company conduct additional evaluation wherever the company's risk assessments identify concerns?
- G4h.5** Do senior executives and/or members of the company's board of directors review and consider the results of assessments and due diligence in their decision-making?
- G4h.6** Does the company conduct assessments on a regular schedule?
- G4h.7** Are the company's assessments assured by an external third party?
- G4h.8** Is the external third party that assures the assessment accredited to a relevant and reputable human rights standard by a credible organization?

We believe that the poor commitments in this area are closely related to the regulatory environment that the big telcos can indulge in as it increases their profits. The telcos behavior and commitments are aligned with the regulatory environment explained earlier in Chapter 2. The inter-ISP SPNP regime is already in place, leaving alive the tantalizing hope of the telcos to charge termination fees directly on the content providers sending the data traffic to them, just like the super-lucrative age of telephony. It explains why they will not make commitment not to collect termination charges.

Also, the net neutrality norms in Korea are not in form of any binding law but only in the form of guidance, which explain why the past net neutrality violations in throttling and blocking the traffic to protect their IPTV revenues (P2P and Samsung Smart TV) and voice telephony (Kakao Talk Voice) revenues and self-preferencing their affiliate contents (11st Street) were not remedied legally but were withdrawn only after Open Net and various CSOs have criticized their behaviors.

6. Algorithmic System Development and Use

Both companies performed poorly on most indicators regarding the development and utilization of algorithmic systems. SK Telecom disclosed almost nothing regarding the algorithmic system, despite its recent emphasis on artificial intelligence.²⁶ KT outperformed SK Telecom on indicators such as F2c and F3c by disclosing basic advertising targeting policies.

The F3c index examines whether the company allows the third party to target its users, discloses the prohibited parameter type, and discloses whether the targeting category is evaluated before applied. KT discloses basic information on the terms of policies for K-Ads, its targeting service. Neither company discloses any information regarding the F4c index that analyzes advertisement content policy and advertising content restriction policy disclosure.

They also did not score any points on P1b and P2b, which are on the AI development policy disclosure.

F3c Advertising targeting rules and enforcement : The company should clearly disclose its policies governing what type of advertising targeting is prohibited.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	Score
KT	Prepaid mobile	Y	Y	Y	N	N	60%
	Postpaid mobile	Y	Y	Y	N	N	60%
	Fixed-line broadband	Y	Y	Y	N	N	60%
	KT GIGA Genie	N	N	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	N	0%
	SKT NUGU	N	N	N	N	N	0%

F3c.1 Does the company clearly disclose whether it enables third parties to target its users with advertising content?

F3c.2 Does the company clearly disclose what types of targeting parameters are not permitted?

F3c.3 Does the company clearly disclose that it does not permit advertisers to target specific individuals?

F3c.4 Does the company clearly disclose that algorithmically generated advertising audience categories are evaluated by human reviewers before they can be used?

F3c.5 Does the company clearly disclose information about the processes and technologies it uses to identify advertising content or accounts that violate the company's rules?

²⁶ Koo, Gyo-hyung, "SK Telecom will put forward and develop AI" Kyunghyang Shinmun, 05 June, 2023, <https://www.khan.co.kr/economy/industry-trade/article/202306052157015>

F4c. Data about advertising content and advertising targeting policy enforcement: The company should clearly disclose and regularly publish data about the volume and nature of actions taken to restrict advertising content that violates the company's advertising content policies and advertising targeting policies.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	5	6	Score
KT	Prepaid mobile	Y	Y	N	N	N	N	0%
	Postpaid mobile	Y	Y	N	N	N	N	0%
	Fixed-line broadband	Y	Y	N	N	N	N	0%
	KT GIGA Genie	Y	Y	N	N	N	N	0%
SK Telecom	Prepaid mobile	Y	N	N	N	N	N	0%
	Postpaid mobile	Y	N	N	N	N	N	0%
	Fixed-line broadband	Y	N	N	N	N	N	0%
	SKT NUGU	Y	N	N	N	N	N	0%

F4c.1 Does the company publish the number of advertisements it restricted to enforce its advertising content policies?

F4c.2 Does the company publish the number of advertisements it restricted based on which advertising content rule was violated?

F4c.3 Does the company publish the total number of advertisements it restricted to enforce its advertising targeting policies?

F4c.4 Does the company publish the number of advertisements it restricted based on which advertising targeting rule was violated?

F4c.5 Does the company publish this data at least once a year?

F4c.6 Can the data be exported as a structured data?

P1b. Access to algorithmic system development policies : The company should offer algorithmic system development policies that are easy to find and easy to understand.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	Score
KT	Prepaid mobile	N	N	N	0%
	Postpaid mobile	N	N	N	0%
	Fixed-line broadband	N	N	N	0%
	KT GIGA Genie	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	0%
	Postpaid mobile	N	N	N	0%
	Fixed-line broadband	N	N	N	0%
	SKT NUGU	N	N	N	0%

P1b.1 Are the company's algorithmic system development policies easy to find?

P1b.2 Are the algorithmic system development policies available in the primary language(s) spoken by users?

P1b.3 Are the algorithmic system development policies presented in an understandable manner?

P2b. Changes to algorithmic system development policies : The company should clearly disclose that it directly notifies users when it changes its algorithmic system development policies, prior to these changes coming into effect.

Y = Yes , N = No , P = Partial , N/A = Not Applicable

Company/Service		1	2	3	4	Score
KT	Prepaid mobile	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	0%
	KT GIGA Genie	N	N	N	N	0%
SK Telecom	Prepaid mobile	N	N	N	N	0%
	Postpaid mobile	N	N	N	N	0%
	Fixed-line broadband	N	N	N	N	0%
	SKT NUGU	N	N	N	N	0%

P2b.1 Does the company clearly disclose that it directly notifies users about all changes to its algorithmic system development policies?

P2b.2 Does the company clearly disclose how it will directly notify users of changes?

P2b.3 Does the company clearly disclose the time frame within which it directly notifies users of changes prior to these changes coming into effect?

P2b.4 Does the company maintain a public archive or change log?

Both KT and SK Telecom promote their targeted advertising service and AI speaker service, built with an abundance of data already collected with their diverse business portfolio. But both companies have not published transparency reports, advertising policy, nor any transparency on what kind of algorithm system has been implemented to provide content curation/recommendation.

Disappointing level of disclosure by two companies demonstrates that these companies' and the government's recognition of algorithmic systems is only rudimentary. Results of the P1b and P2b index suggests that the companies do not have any AI development policy and might not even recognize the need for development policies.

7. CONCLUSION

The RDR methodology is unique among human rights assessment efforts in that it evaluates the public commitments of the companies, not on whether they deliver on their commitments. However, the significance of their commitments becomes pronounced when the company's actual practices concerning those commitments show disappointing records.

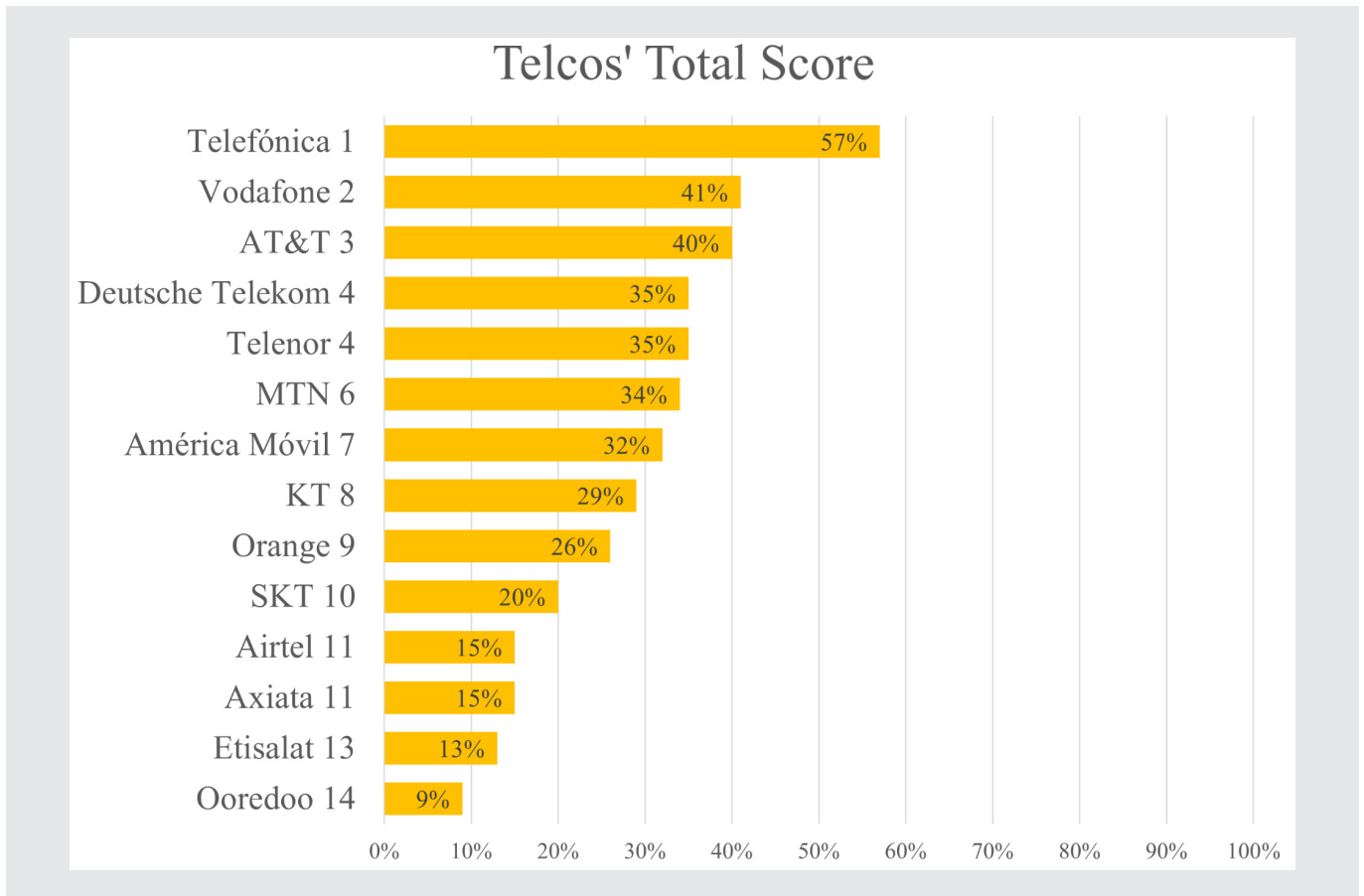
Korean telcos did not fare badly in comparison to other global Telco Giants reviewed by RDR, but their practices make more prominent the absence of commitments in certain areas such as net neutrality and communications data provision.

The Korean telecommunications sector started its shift to privatization in the 1980s. But the government continued its role as a strategic planner rather than an umpire. The Korean telecommunications market is dominated by three telco giants and market competition is limited. This history and market landscape can explain Korean telcos' passivity.

KT and SK Telecom were providing ample information in basic terms of service. They were offering terms of service that are easy to find and disclosing what user information they were collecting. Their ESG reports provide numbers and legislative basis of government requests for user information and their commitment for data protection. Nevertheless, a large portion of their lengthy ESG reports consist of abstract statements rather than detailed disclosure of processes or specific commitments.

Both KT and SK Telecom disclose the number of government demands for user information and that they comply with all requests, but do not provide the process for responding to government demands (P10a). Both disclose substantial information about their processes to ensure security (P13), but do not provide concrete policy when security vulnerabilities are discovered (P14) and process for responding to data breaches (P15). Both companies state the possibility of "reasonable traffic management," which allows telecommunication companies to manage network traffic in a manner that they deem appropriate, without clear commitment for net neutrality.

Also, both companies performed poorly according to indicators regarding the use of algorithmic systems and artificial intelligence development. This result is alarming considering that both companies are promoting their AI technology. Poor performance in this area is due to the government lacking proper understanding of possible threats caused by the algorithmic systems and rudimentary understanding of AI ethics. Risks posed by the algorithmic systems have not received sufficient attention in Korea. Without guidelines or regulations imposed, their corporate policies remain void.



Annex : Why does charging for SPNP violate Network Neutrality?

Internet was born free. Internet ingeniously allowed all people to communicate with one another directly without direct connection. Internet achieved that by forming a network of all routers bound by a global promise to pass all data packets to their immediate neighbors where each data packet gets delivered to its destination after a sufficient number of pass-offs (or more popularly known as “hops”) to next routers closer to the packet’s destination according to routing tables. Now all computers could communicate with one another directly simply by obtaining access to that network through nearby routers.

It has been critical for this success that all routers ‘pass messages to neighbors’ for free and without any discrimination because they can be carrying all other people’s messages and their messages are carried by other terminals. If routers charge money or impose conditions for passage of messages (data packets) the transaction cost alone of resolving the charges and the passage conditions would have destroyed the Internet. Internet depends on this promise to ‘pass to neighbors’ for free and without discrimination and we call that promise ‘network neutrality’.

Now if content or payment cannot be the requirement for passage it cannot be the reason for prioritization or throttling either and hence the more popular versions of network neutrality rules such as “no fast lanes”.

The socio-economic significance has been great: It is thanks to the network neutrality rule that people speaking online (or platforms for such speech) can speak freely without worrying about the economic cost of delivering the messages to the potentially unlimited number of listeners. It is this feature of the Internet that strengthened democracy: by providing poor and powerless people with nearly free mass communication tools when governments and big advertisers influence broadcasting and newspapers.

Now, ISPs provide access to the Internet for a fee by providing that neighborhood router through which the local customer can enter into the Internet - the world of the routers bound together by the promise of

network neutrality.

ISPs charge a fee because it does cost a little bit to maintain physical connection and also because ISP is itself not connected directly to all other terminals around the world and therefore must purchase connection from another ISP with better connection to the rest of the world (namely 'transit').

Still the free and no discrimination promise of network neutrality is preserved: All fees are charged for capacity of the connection - not for the amount of data that pass through the connection- and therefore charged once only by the ISP in the neighborhood that provide the gateway into the world of the Internet. Once a person obtains Internet access at a certain capacity (or equivalently speed) and maintains it - the person is never charged for no matter how much or which data he or she sends or receives through that connection.

Tim Wu likened Internet access to water and electricity to emphasize the need for indiscriminate first-come first-serve rule but the metaphor should stop right there. We pay for 'delivery' of water and electricity but we do not for online data delivery: Firstly, when it comes to data delivery from one point to another is fragmented and crowd-sourced among different combinations of so many routers belonging to so many different combinations of ISPs that one can say everybody is both a provider and a customer so there is no person to charge and no person to be charged. Secondly once physical connection is established the cost of data packets, which are essentially light signals, going through the connection is zero just as the cost of light being reflected on mirror surfaces is zero. This should not surprise you when you have seen hours and hours of HD TV either through free air or cable but only to be charged the same amount every month. This is why the network maintenance cost has remained constant while the network traffic has increased by 5 times during the pandemic.

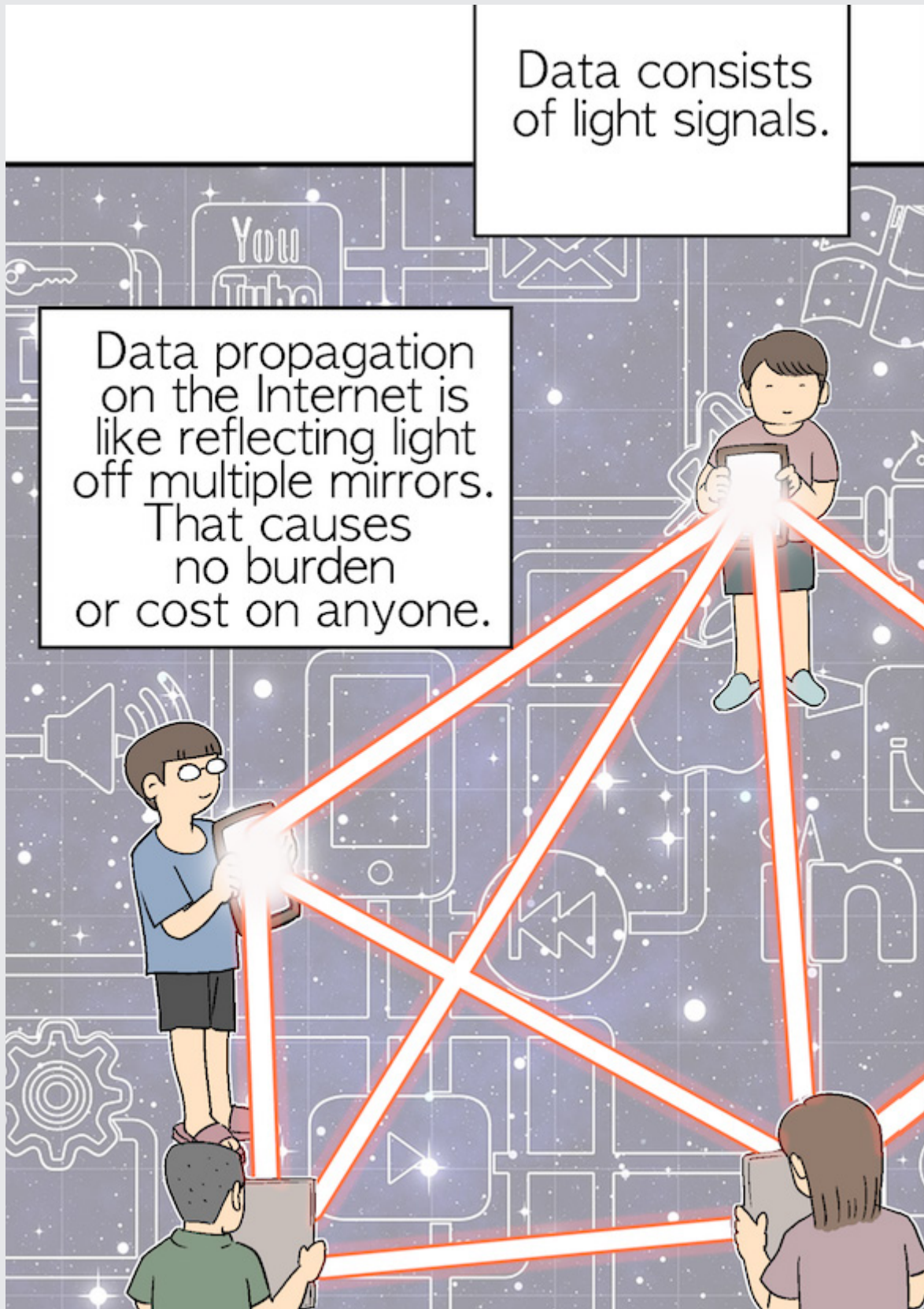
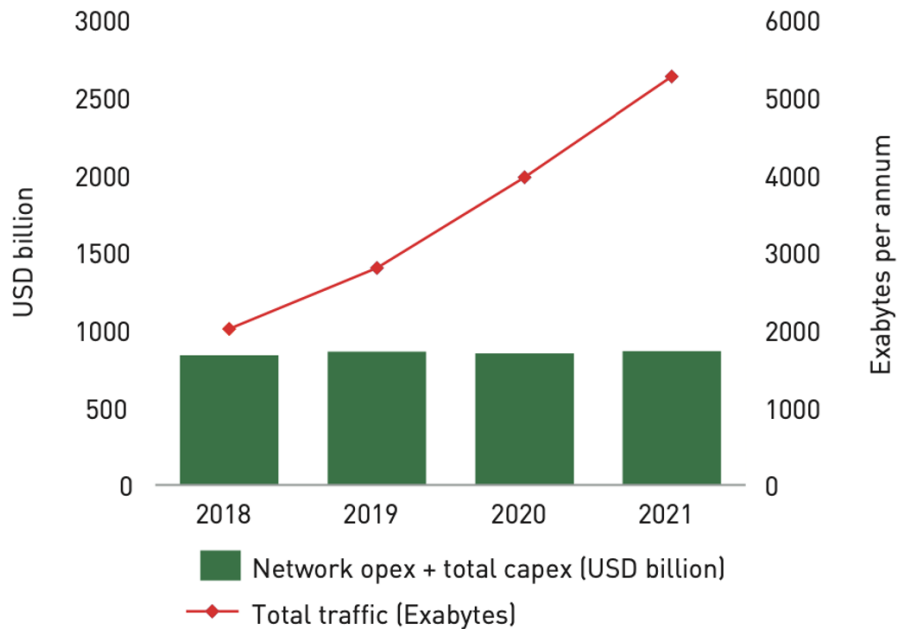


FIGURE 0.2: GROWTH IN TRAFFIC DELIVERED OVER FIXED AND MOBILE ACCESS NETWORKS, AND EVOLUTION OF NETWORK-RELATED TELECOM OPERATOR COSTS FROM 2018 TO 2021

[SOURCE: ANALYSYS MASON RESEARCH, ANALYSYS MASON, 2022]



The reason we pay for data usage in wireless internet is only because wireless carriers do own their proprietary network of cell towers separately from the Internet so what you are paying usage-based is not for use of Internet but for use of these cell towers leading you to the routers. What is more, more wireless carriers are providing unlimited data plans as their basic plans.

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BARE MINIMUM : HOW INDULGENCE IN REGULATION LIMITS USER RIGHTS IN KOREA

