

Over-The-Top (OTT) Services in Korea

Hye Jin Park

ITU-T SG3 Mirror Committee, Korea (Rep. of)

Overview

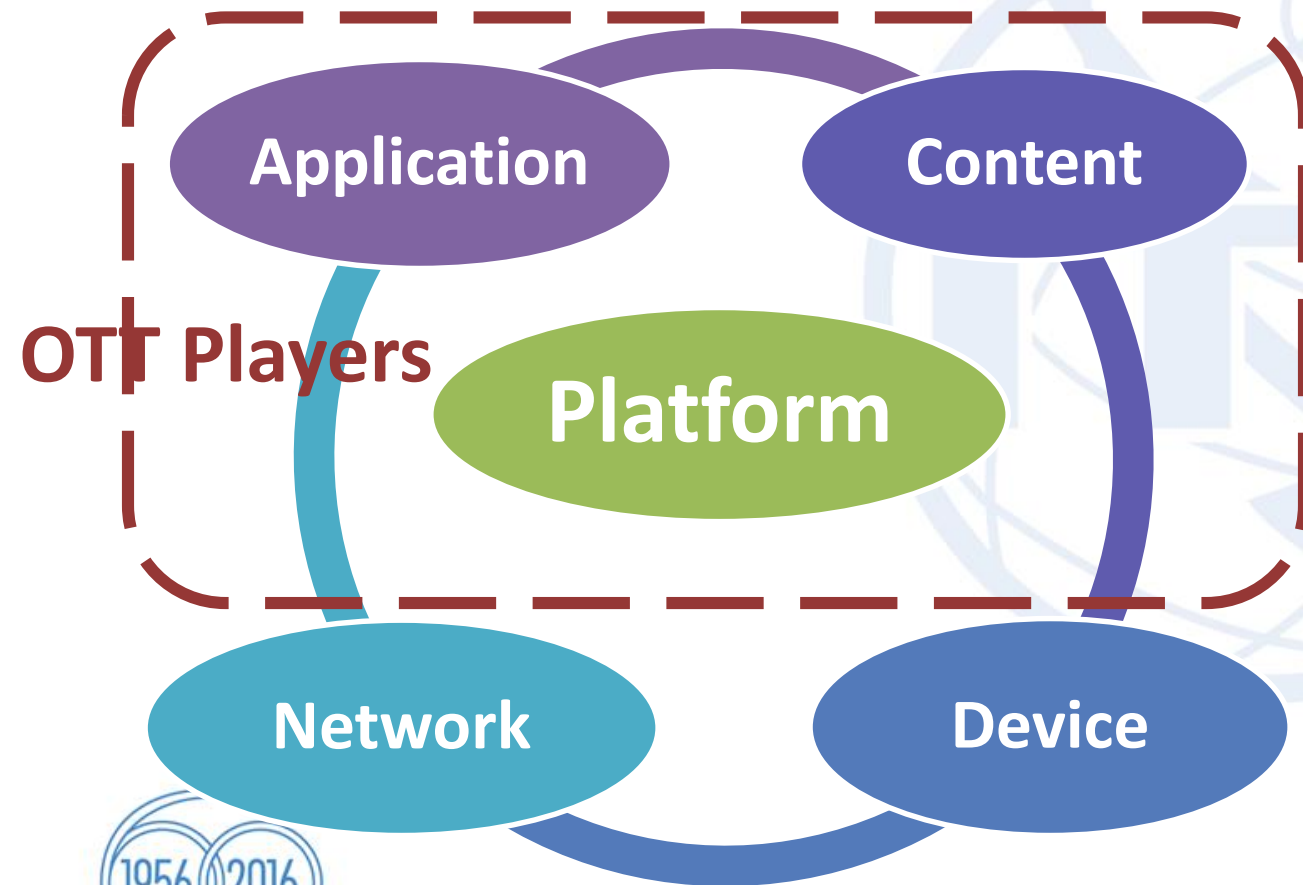
- I. The ICT Ecosystem and OTT Services
- II. Issues Raised from OTT Services
- III. Telecom Operators' Strategies
- IV. Conclusions



I. The ICT Ecosystem and OTT Services



The ICT Ecosystem



- The emergence of smart media has been shifting the paradigm in the ICT ecosystem.
- Traditional services now integrated into internet based services, and OTT players became key players in the market.

What are OTT services?

- OTT services can be defined as any service provided over the internet that bypasses traditional operators' distribution channel.
 - VoIP: Skype, Viber, etc.
 - SMS: WhatsApp, Kakao Talk, Line, Telegram, etc.
 - Apps: search portals, news portals, banking, weather, shopping, etc.
 - Cloud Services: Dropbox, Google Drive, Apple icloud, etc.
 - Internet Television (Video streaming): Netflix, Hulu, YouTube, Amazon Instant Video, etc.



Categorized based on the ICT Regulation Toolkit



OTT services in Korea

- VoIP & SMS: Kakao Talk, Line, NateOn, etc.
- Apps: Naver, Daum, local bank apps, K-weather, Kakao Story, Naver map, etc.
- Cloud Services: Naver cloud, Google Drive, Apple icloud, etc.
- Internet Television (Video streaming)
 - Broadcasting companies' association: poog
 - Cable TV companies: tving
 - Network Operators' IPTV: SK B tv, olleh TV, U+ tv G

In Korea, the term OTT refers to mostly video streaming services.

II. Issues Raised from OTT Services

Issues raised from OTT services

- OTT services transfer contents through the open internet and mobile network.
- The openness of internet and mobile network led to a makeover of the traditional distribution channels of contents.
- New competition environment is emerging and leading to emergence of new issues.
 - Network neutrality
 - Platform neutrality

Network Neutrality Issues



What is Network Neutrality?

- All data on the internet should be treated equally, not discriminating or charging differentially regardless of user, content, site, platform, application, type of attached equipment, or mode of communication (Wikipedia)

Network Neutrality Disputes

- Case #1: MNO vs OTTs
 - In April 2012, Kakao Talk started free mobile Voice over IP (mVoIP) service, “voice talk”.
 - The 3 major MNOs, SKT, KT, LGU+ limited the speed and connection quality of the traffic of the voice talk service.
 - In September 2013, Citizens’ Coalition for Economic Justice (CCEJ) filed for a lawsuit for compensation against MNOs.
 - MNOs violated the fair trade law by blocking mVoIP service.
 - MNOs discriminated the service by controlling the data traffic that subscribers already paid to use.

Network Neutrality Disputes

- Case #1: MNO vs OTTs (continued)
 - In Dec 2013, the MSIP* intervened to forbid MNOs to abuse the power of network ownership.
 - The Standards for reasonable traffic management/use and transparency of traffic management was established to recommend MNOs
 - to launch data plans that allow mVoIP service
 - to open the mVoIP service for the existing plans.
 - MNOs opened up mVoIP service to all of the data plans with a data cap associated with each plan relative to its value.

Network Neutrality Disputes

- Case #2: Manufacturer vs ISP
 - In February 2012, KT blocked internet access from Samsung smart TV.
 - Samsung immediately filed for an injunction requesting to stop KT's blocking.
 - KCC decided to investigate KT's suspected violation of the Guideline for Network Neutrality and Internet Traffic Management
 - KT re-opened the access after 4 days.

Network Neutrality Disputes

- Case #2: Manufacturer vs ISP

The logo for KT (Korea Telecom) consists of the lowercase letters 'kt' in a bold, black, sans-serif font. A red horizontal bar is positioned above the 't', extending slightly to the left of the 'k'.

- Samsung's smart TV triggers 5 to 15 times more traffic than KT's own IPTV streaming traffic.

The Samsung logo features the word 'SAMSUNG' in a white, bold, sans-serif font, centered within a blue oval shape.

- Smart TV does not overload network traffic as KT claimed.
- Samsung is not an operator making profits from smart TV internet services. Samsung is a manufacturer.
- It is irrational for a manufacturer to pay for consumers' network usage.
- KT's action is discrimination against device types and violates consumer rights.

Network Neutrality: Key Difference in Perspective

Telecom operators	Concerns	OTT service providers, manufacturers
High quality video streaming service and free voice calls overload the network.	Data traffic	The smart phone era will boost innovation in contents development.
Control the traffic triggered by services occupying large bandwidth.	Solutions	Find a way to overcome data traffic issue with Technology innovation, not traffic control.
Apportion the investment among entities making profits out of the network.	Investment in network	Telcos monthly charging subscribers for data usage fees should make investments.
Telecom infrastructure will be deteriorated due to scarce investment fund.	Impact on ICT industry	The control on new products and services will hinder the ICT industry development.

Network Neutrality Policies

- Guideline for Network Neutrality and Internet Traffic Management (Dec 2011)
 - 1) User rights
 - 2) Transparency of internet traffic management
 - 3) Prohibition of blocking legally approved contents, applications, services, and devices
 - 4) Prohibition of unreasonable discrimination of legally approved contents, applications, and services
 - 5) Reasonable traffic management

Network Neutrality Policies

- Standards for Reasonable Traffic Management/Use and Transparency of Traffic Management (Jan 2014)
 - Traffic management principles
 - Reasonable traffic management standard
 - Transparent provision of information on traffic management and user protection
 - Balanced use of telecom network resource
 - Recommendation on mVoIP provision

Platform Neutrality Issues



What is a platform?

- **Hardware platform:** Used to denote ‘physical structure’ in many places (e.g. diving platform, train platform, IBM mainframe platform)
- **Software platform:** Operating Systems that enables various applications (e.g. windows, iOS, android)
- **Service as a platform:** Some services evolve as a service platform and creates a distinct ecosystem of their own. (e.g. facebook, twitter, amazon)



Platform nowadays: a core foundation of services



What is Platform Neutrality?

- The software or content should run/display properly on any type of computer, cell phone, or other device. (IT Law Wiki)
- In other words, platform providers should treat the content, applications, services displayed on their platform regardless of the providers of those contents, applications, services equally and provide equal access to their platform.
- Example of platform providers



Google, Apple, Facebook, Naver, Daum



Platform Neutrality Issues

- Background

- The ICT ecosystem has been rapidly evolving around the emergence of smart devices and platform providers.
- Outcries in the market on unfair treatment of the large platform providers

Examples

- Apple's Appstore not allowing other music apps
- Google search engine pre-installed in Android OS

- Disputes between OTTs vs OTTs

- To ex-ante regulate or ex-post regulate?

Platform Neutrality Issues

- Case #1: Fair Trade Commission's Investigation on Google
 - Naver and Daum Communication sued Google (2011)
 - Pre-installed Google search engine on Android phones would hinder fair competition.
 - Device manufacturers may have been obliged to place Google search.
 - Fair Trade Commission concluded that there is no evidence Google encouraged unfair competition in the market. (c.f. Naver has 70% of market share.)

Platform Neutrality Issues

- Case #2: Fair Trade Commission's Investigation on Google
 - FTC's investigation on violation of Fair Trade Act commenced after EU's decision on filing of antitrust charges on Google (May 2016~)
 - FTC suspects the act of squeezing out other OS rivals by using the market dominance against Google within Korean market and the investigation is still ongoing.

EU's filing of antitrust charges on Google (Apr 2016)

- 1) *Systematically favoring its shopping service*
- 2) *Squeezing out rivals by using Android OS*
- 3) *giving significant financial incentives to some of the world's largest smartphone makers to pre-install Google search exclusively on devices*

Regulatory Approaches on Neutrality Issues

Apr 2016

- Korea Communications Commission (KCC)'s pre-announcement of legislation on Telecommunication Business Act (TBA) revision

**Apr~Aug
2016**

- Opposition opinions on the TBA revision submitted by
 - The Korea Internet Corporations Association
 - Korea Telecommunications Operators Association

**Aug
2016**

- Regulatory Reform Committee (RCC) requested KCC to review the TBA revision.
- KCC revised the initial TBA revision considering the opinions of the market.
- RCC is reviewing the KCC's revision.

Regulatory Approaches on Neutrality Issues

- Controversial term in the KCC's revision on the enforcement ordinance of the Telecommunications Business Act

Addition of 'Prohibited Acts' terms

The act of limiting or denying users' right to free choice or use by imposing unreasonable or discriminatory conditions to providers of telecommunication services, which require the use of a certain service rendered by the telecommunication service provider.

Regulatory Approaches on Neutrality Issues

- Interpretation on the draft revision
 - Mandatory equal access to platforms without discrimination
 - Big SNS companies, portals should provide their platforms to other content providers equally with no discrimination.
 - Companies with significant market power (e.g. Google, Naver, Kakao Talk) should not unfavorably distribute or discriminate exposure of the contents of certain providers.
 - The scope of the revised phrase is too broad.
 - The proposed revision makes execution of the law controversial. It could be the basis of regulating either network neutrality or platform neutrality.

Regulatory Approaches on Neutrality Issues

- Positions of interested parties

Big Internet Companies

- The interpretation of **'telecommunication services'** can be too vague and broad. (KCC intends to include internet companies including portal services within the 'telecommunication services' boundary.)
- Possibility of **regulating platform neutrality**
- **Double regulation** concerns (Unfair treatments towards other businesses can be monitored and regulated by FTC.)
- **Reverse discrimination issues** (Foreign companies can be excluded from the regulatory target. The government's regulation is generally applied to the companies having servers in Korea.)

e.g. Restrictive identity verification introduced in 2009

Individual identity needs to be verified for each user to write or comment online. Applied to domestic companies only that resulted attracting more users to foreign platforms like YouTube.

Regulatory Approaches on Neutrality Issues

- Positions of interested parties

Start-ups & Content Providers

- **Regulatory measures for market dominant companies are required** for fair competition to a certain extent.
- The market dominant big portal companies already expanded their business to contents creation and manipulate priorities of exposure of the contents on their platforms. Business expansion to them is a loss of business to SMEs.

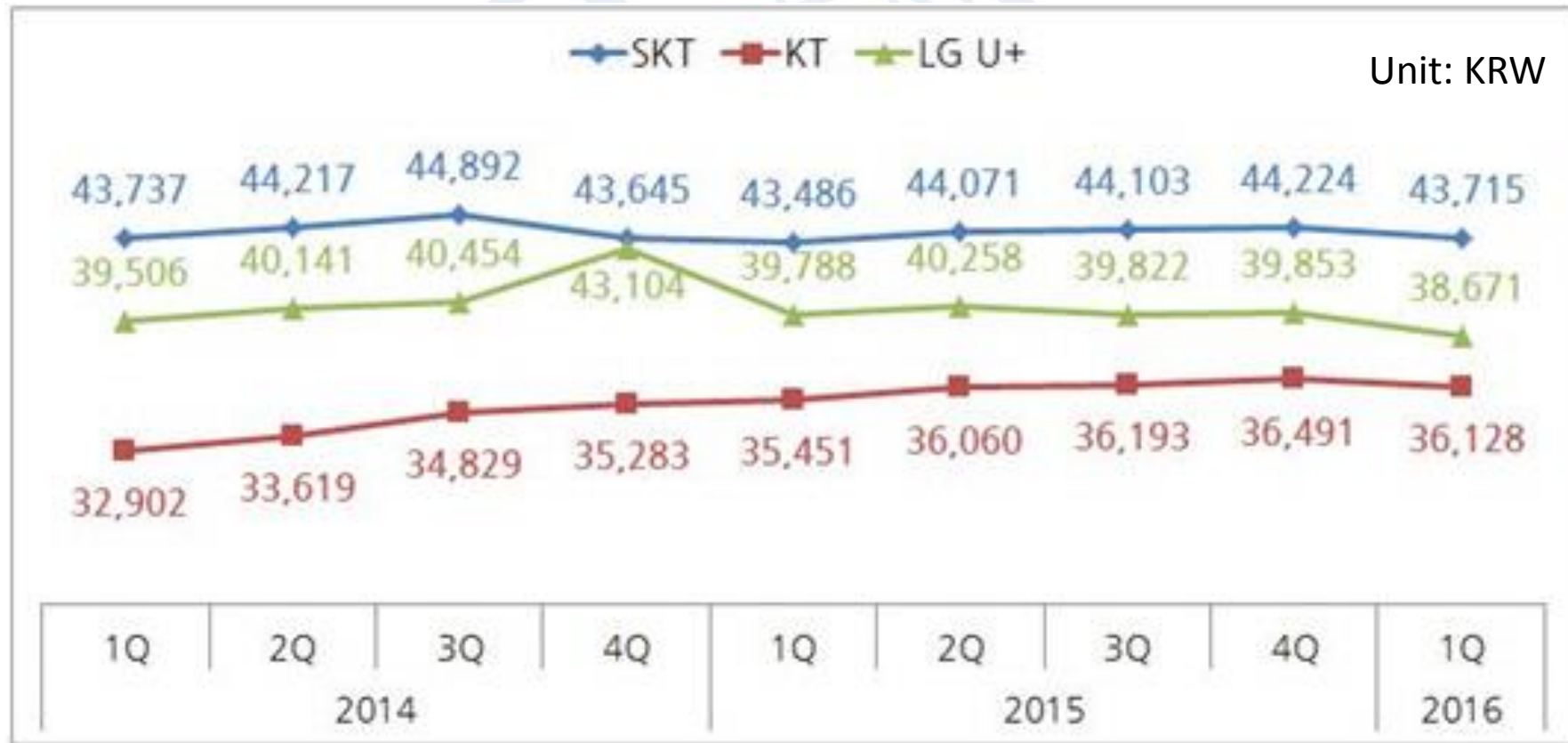
Network Operators

- Virtually, systematically implementing **network neutrality regulations**
- The revision on the enforcement ordinance is not consistent with the TBA of higher hierarchy law. A careful and thorough social procedure should be followed to implement such laws.

III. Telecom Operators' Strategies



ARPU of 3 Major Mobile Network Operators



Source: Edaily, June 2016

MNOs' action to the stagnant ARPU increase

- MNOs embraced the paradigm shift from fixed-voice to mobile-data.
 - Offering data usage based plans with unlimited voice and SMS
 - Launching mobile messenger app to compete with Kakao Talk
 - Expanding business areas to generate more data traffic

Offering data based plans

- MNOs virtually gave up voice and SMS revenue and launched data usage based plans with unlimited voice (both on-net, off-net, and fixed) and SMS usage. (2015)

	SKT	KT	LGU+
Voice	Unlimited fixed and mobile voice calls for all data plans	- Plans starting from \$40: unlimited mobile voice calls - Plans starting from \$50: unlimited fixed and mobile voice calls	Unlimited mobile voice calls for all data plans
SMS	Unlimited SMS for all data plans		
Data	Varies from 300MB (\$20~) to 30GB (\$90~)		
Specialties	Data refill available	Allows to - carry over left over data to next month - use from next month data in advance	A data plan for mobile IPTV available

Launching Mobile Messenger App

- 3 MNOs launched “Joyn”, a mobile messenger to take the market share back from Kakao Talk (2012)
 - While taking the risk of losing the SMS revenue, SKT, KT, LGU+ together launched a mobile messenger that supports SMS, LMS, MMS, file transfer, location sharing, video sharing, etc. following the GSMA standard.
 - Nevertheless, Joyn failed to expand the market share and the service came to an end in Feb 2016.

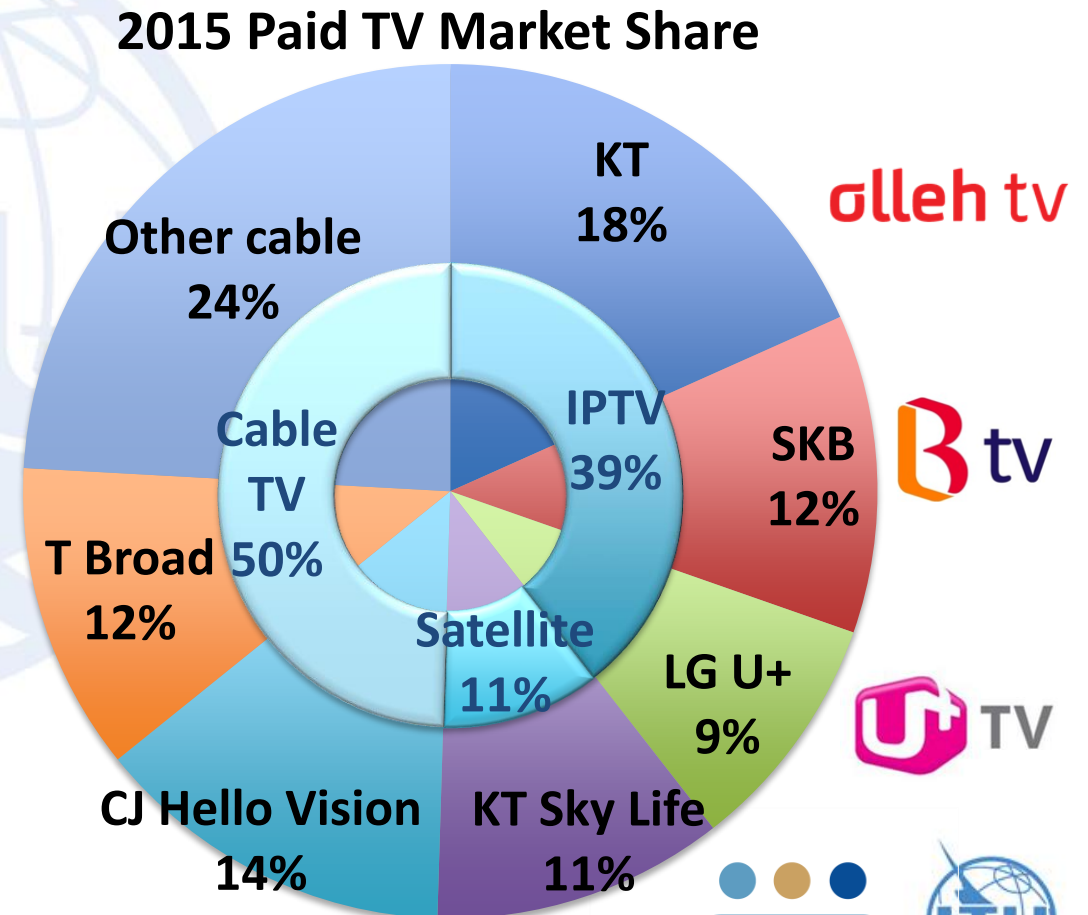


- Users did not need to switch their already familiar messaging app.
- Kakao Talk’s first mover advantage is ongoing until now.



Business expansion towards content acquisition and broadcasting

- IPTV services by telecom operators
- KT has the highest market share in the paid TV market. (out of 28million subscriber base)
- Expanding services to mobile platform to generate data usage



Business expansion towards content acquisition and broadcasting

- 3 operators extended the VOD service to mobile platform.
- Real time terrestrial TV broadcasting is not supported in the mobile service.
 - Negotiation with TV broadcasting companies for retransmission of real time TV programs on mobile platform have come to a halt due to nonnegotiable gap in determining the charges.
- Weakness of Telcos: not owning the content



SKT attempted a M&A with CJ Hello Vision (cable company), but it was disapproved by FTC.



IV. Conclusions



Conclusions

- Rapidly evolving ICT industry
 - On the foundation of network infrastructure, the ICT ecosystem is evolving around platform providers and produces many OTT services.
 - Different positions from interested parties in the market raises many sensitive policy issues.
 - Telecom operators are expanding their business areas to breakthrough this unfavorably evolving ICT market.
 - Regulators and governments are seeking symbiotic solutions for all.

Conclusions

- Goals of policy directions
 - Ensure fair competition values: Creating a win-win structure for SMEs and big companies
 - Expand consumer benefits: Allowing consumers to make rational consumptions of services
 - Facilitate innovation: Promoting the evolving ICT ecosystem with businesses of added value
 - Encourage investment in the market



Thank you for listening.

Questions?

h.j.park006@gmail.com





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