

# **Who Become the World Leader in Telecommunication Market.**

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**4. CT Strategy**

**5. CT Action Plans**

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# 1. Present Telecommunication Market

# Lessons from stock index

## Semi-strong form of efficient market hypothesis 準強形效用市場假設

- “All public information is reflected on the stock face value.”
- While most of telecommunication companies have declined last three years, giant IT corporations such as Apple and Google show rapid growth.



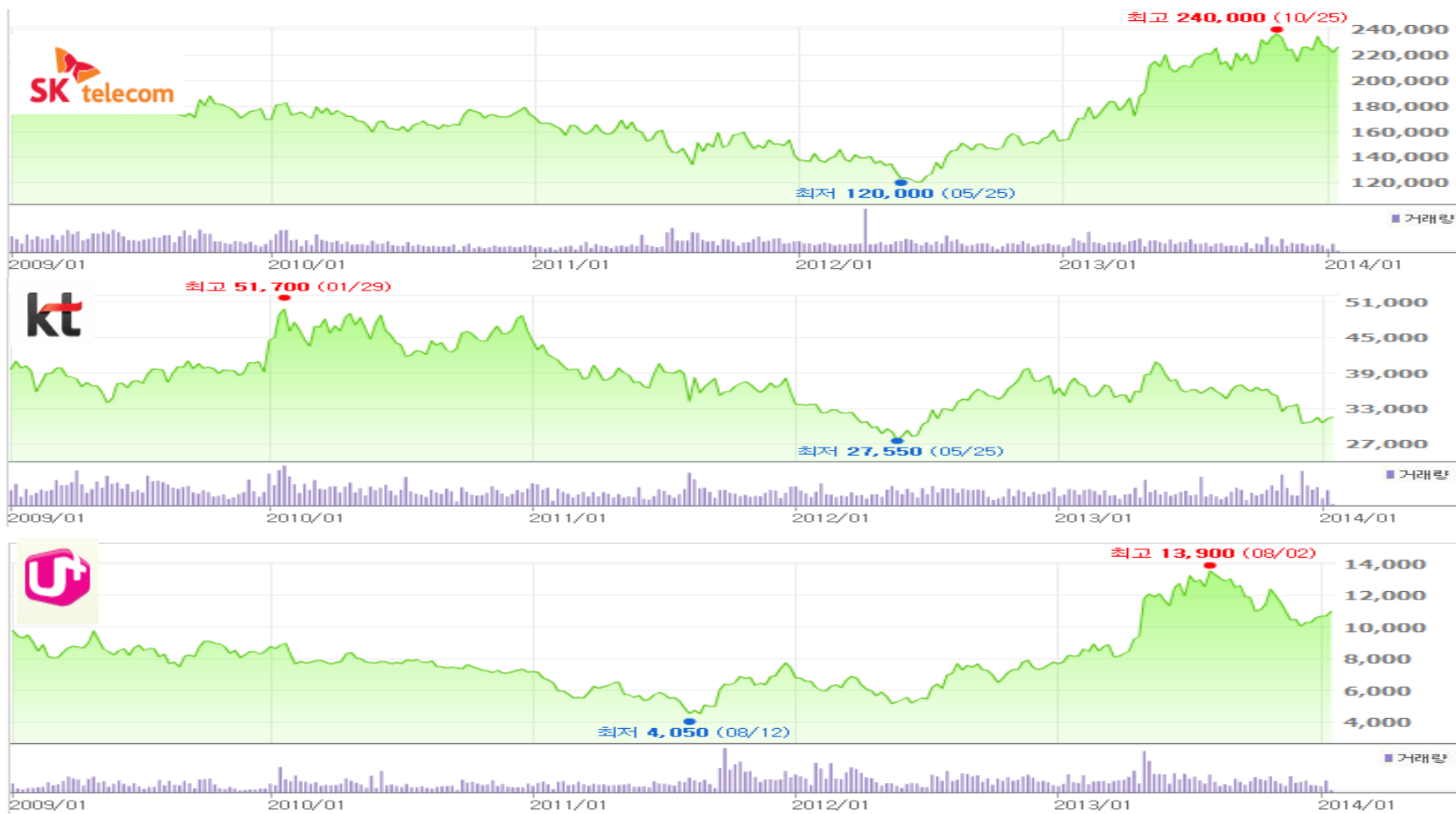
# Lessons from stock index

## Telecommunication Market in USA



# Lessons from stock index

## Telecommunication Market in Korea



# Lessons from stock index

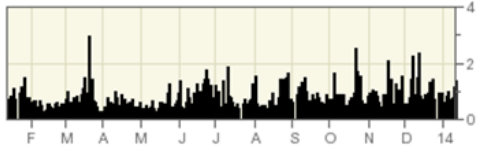
## Telecommunication Market in China



Stock Price in Dollars



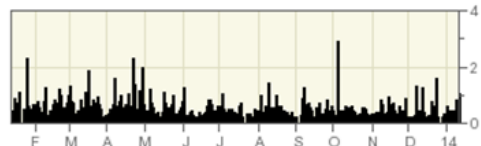
Volume (million of shares)



Stock Price in Dollars



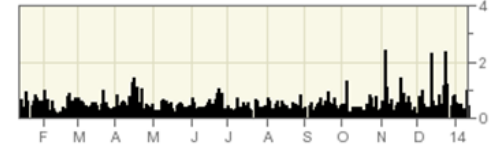
Volume (million of shares)



Stock Price in Dollars

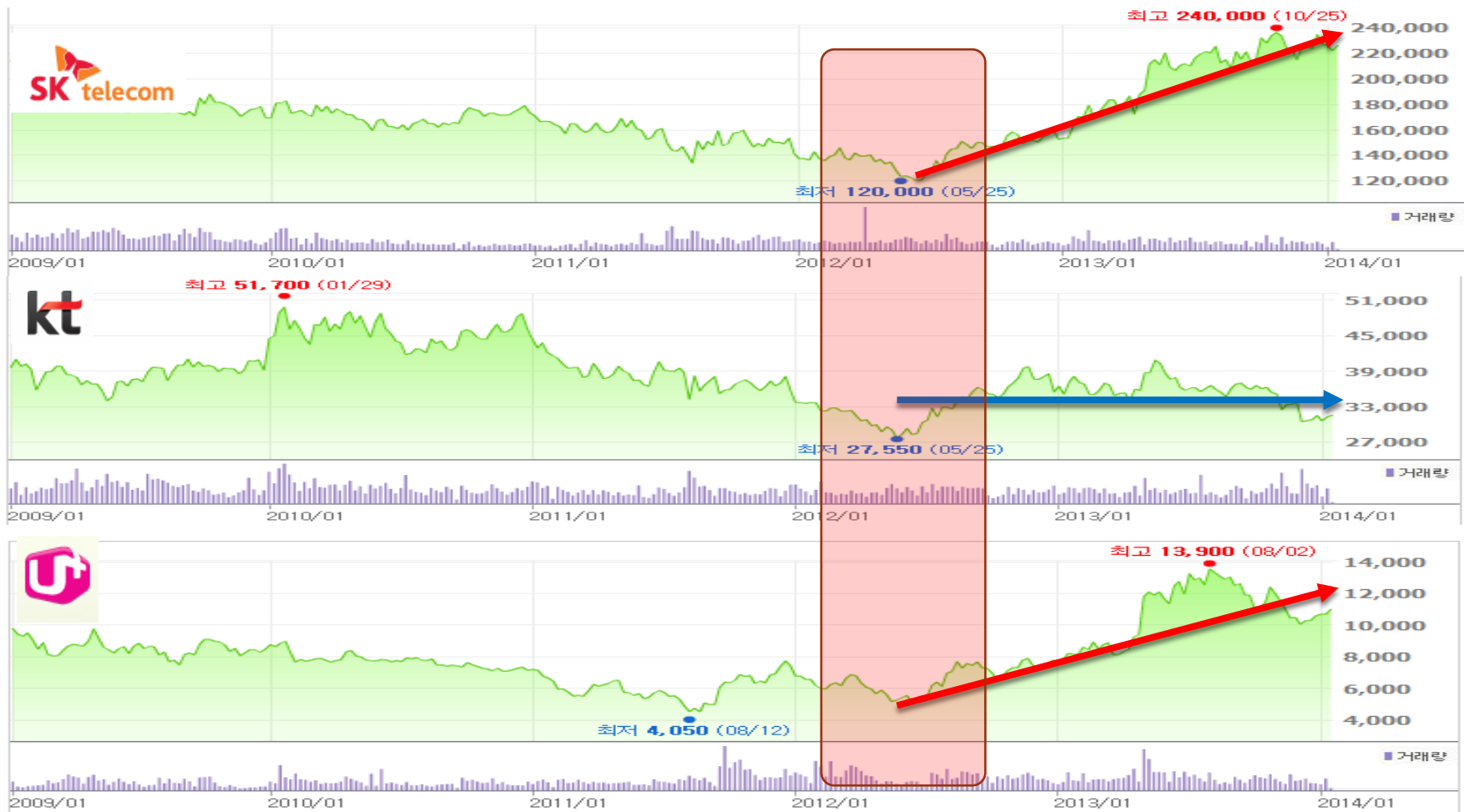


Volume (100,000s of shares)



# Lessons from stock index

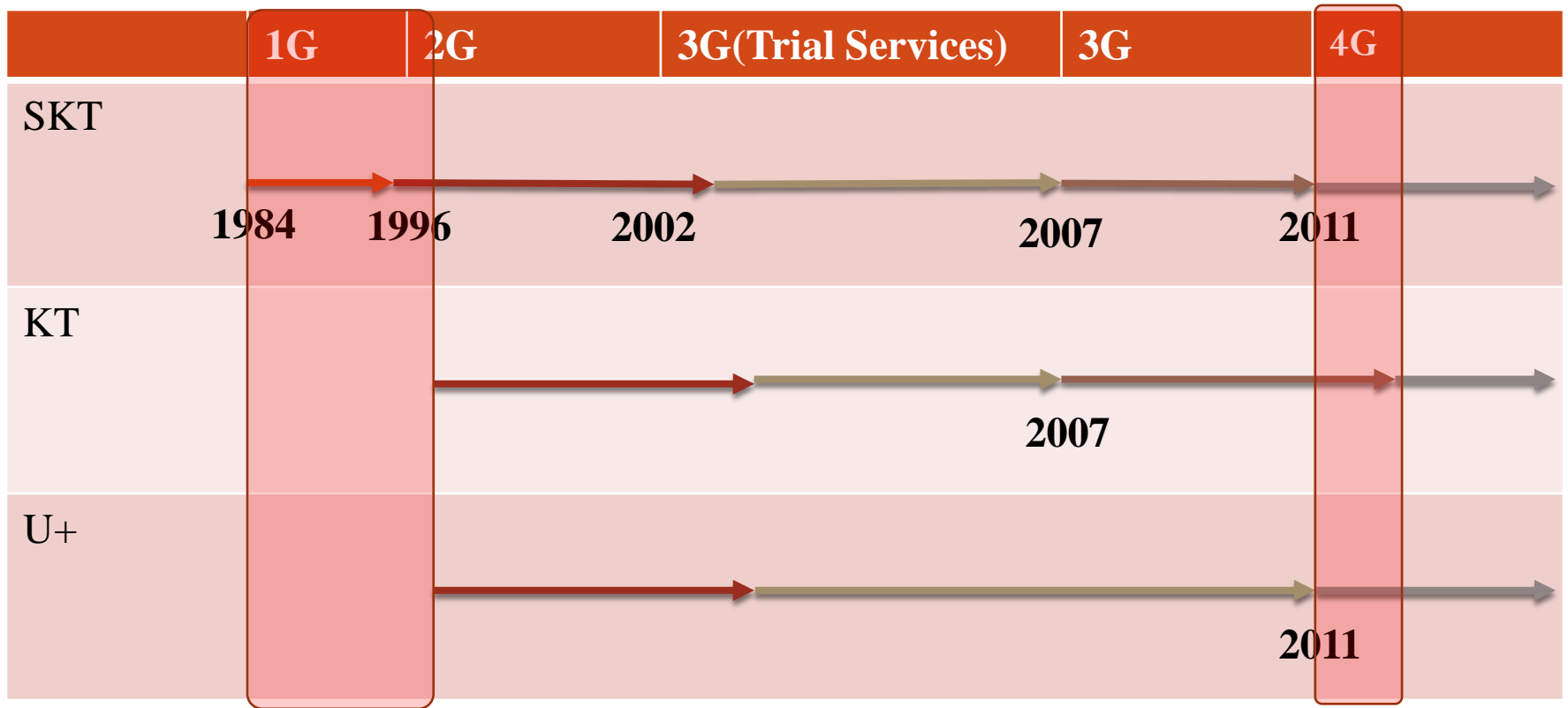
## Telecommunication Market in Korea





# Technology Innovation in Korea

## Innovation Trends in the Telecommunication Markets

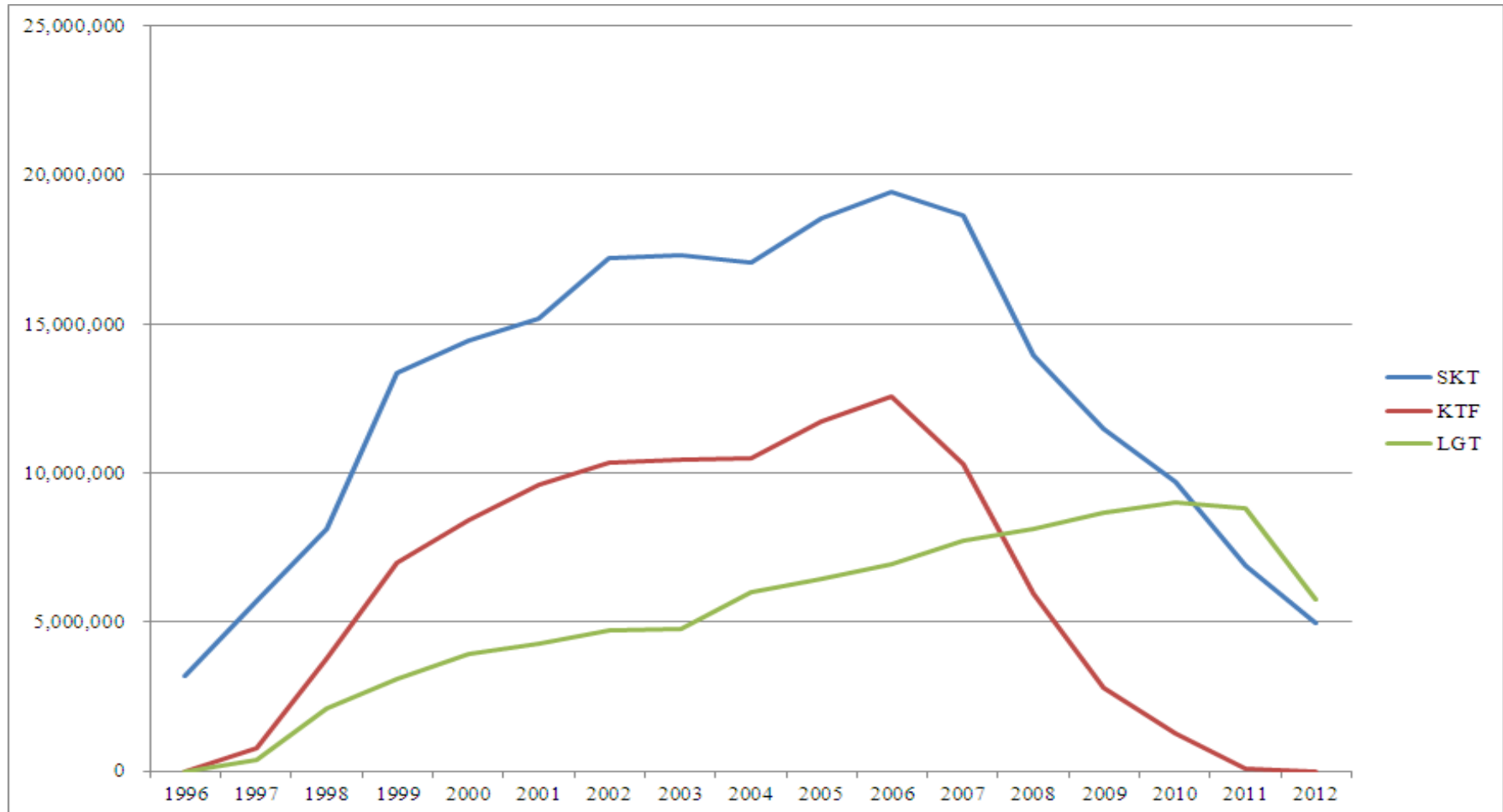


# Technology Innovation in Korea

	SKT	KT	U+
Market position	First mover	Fast follower	Follower
1G Strategy	First mover	2 <sup>nd</sup> mover	3 <sup>rd</sup> mover
2G Strategy	First mover	2 <sup>nd</sup> mover	3 <sup>rd</sup> mover
3G Strategy	First mover	2 <sup>nd</sup> mover	Not service
4G Strategy	First mover	2 <sup>nd</sup> mover	First mover
Market share(2013.01)	50.414%	30.962%	18.624%

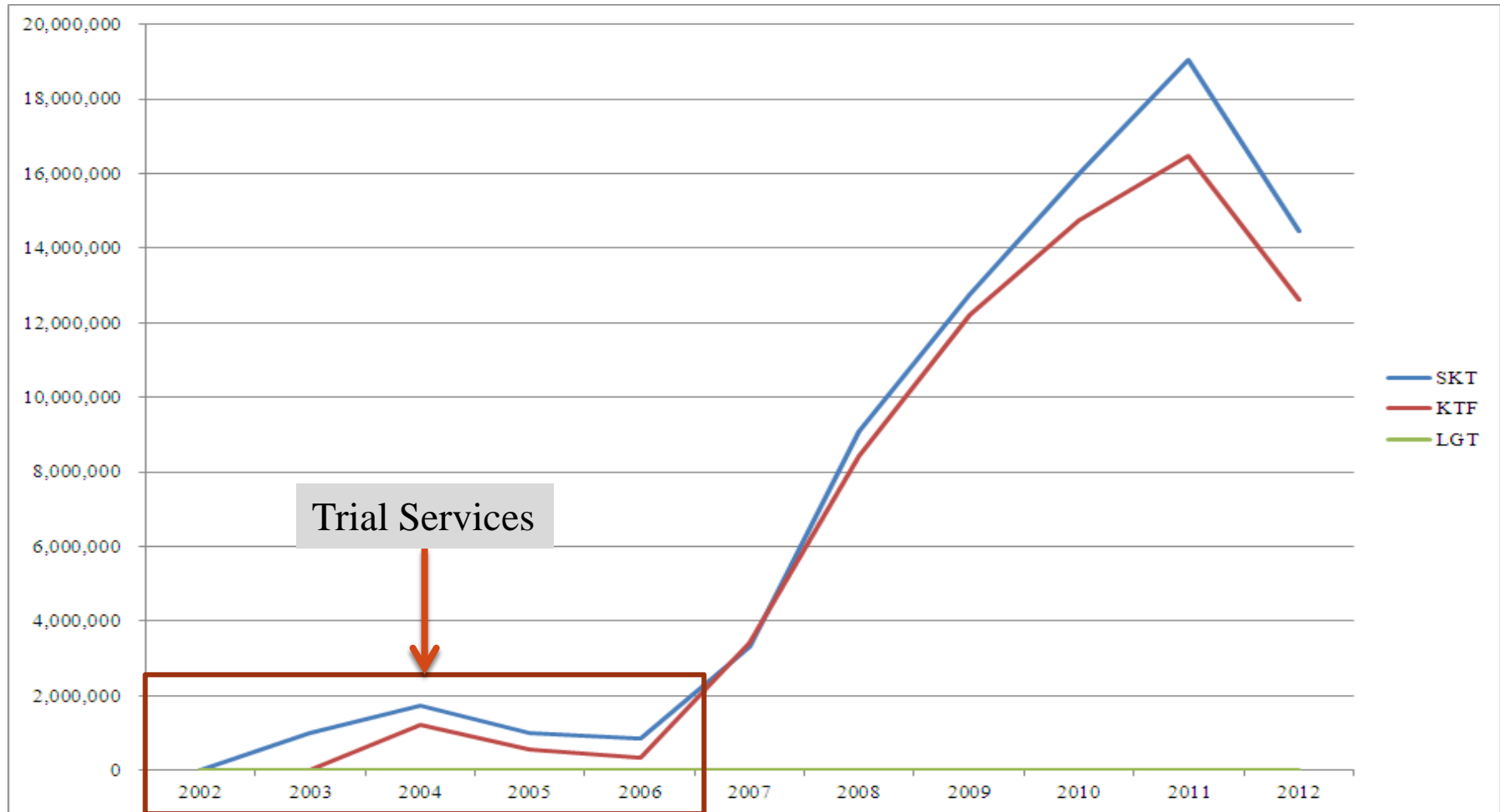
# Telecommunication Subscriber

## Telecommunication Subscriber in Korea: 2G(CDMA)



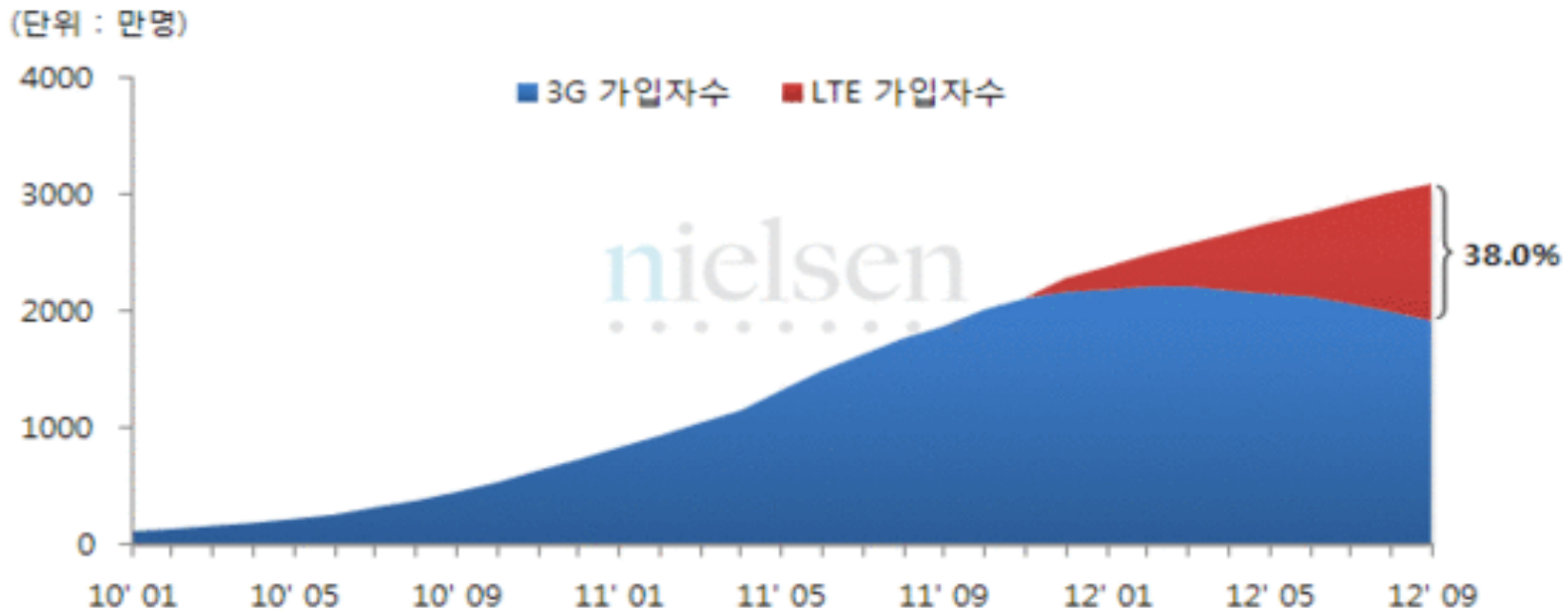
# Telecommunication Subscriber

## Telecommunication Subscriber in Korea: 3G(WCDMA)



# Telecommunication Subscriber

## Telecommunication Subscriber in Korea: 3.5G(HSP(D)A)



\* Source: 방송통신 위원회

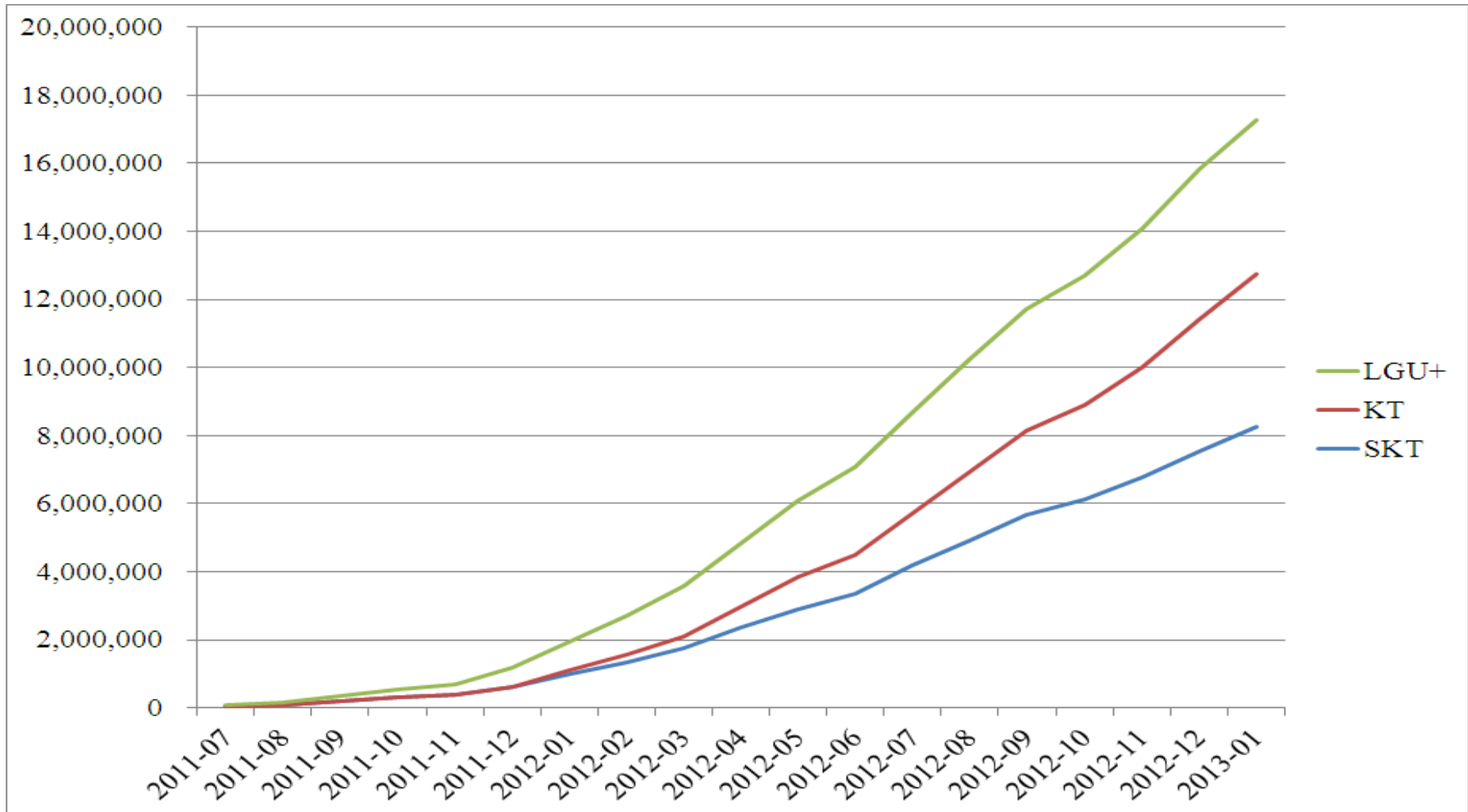
(단위 : 만명)

구분	2012년	2013년	2014년	2015년	2016년
가입자수	1,400	3,300	4,500	5,000	5,300

\* Source: ETRI

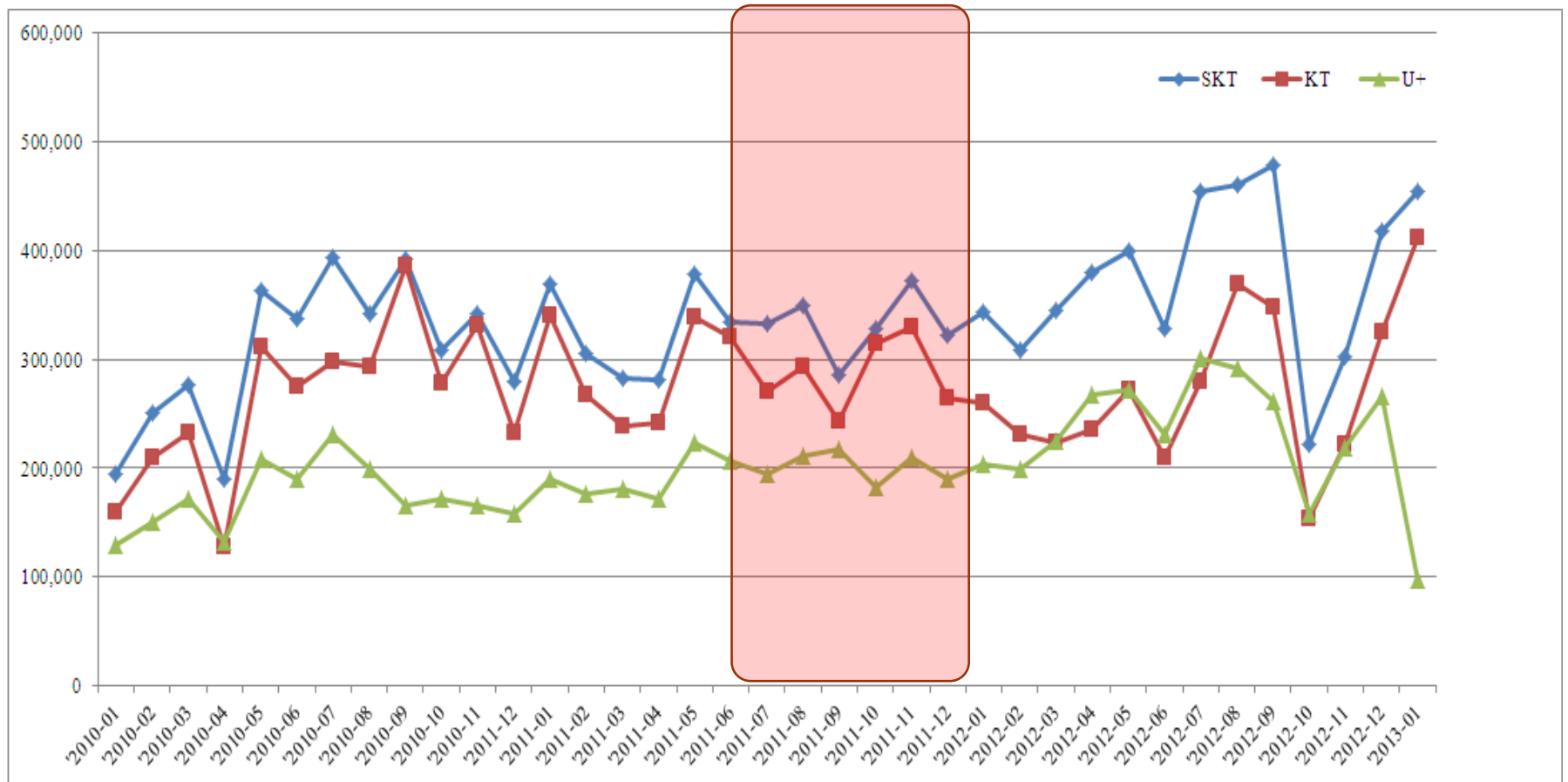
# Telecommunication Subscriber

## Telecommunication Subscriber in Korea: 4G(LTE)



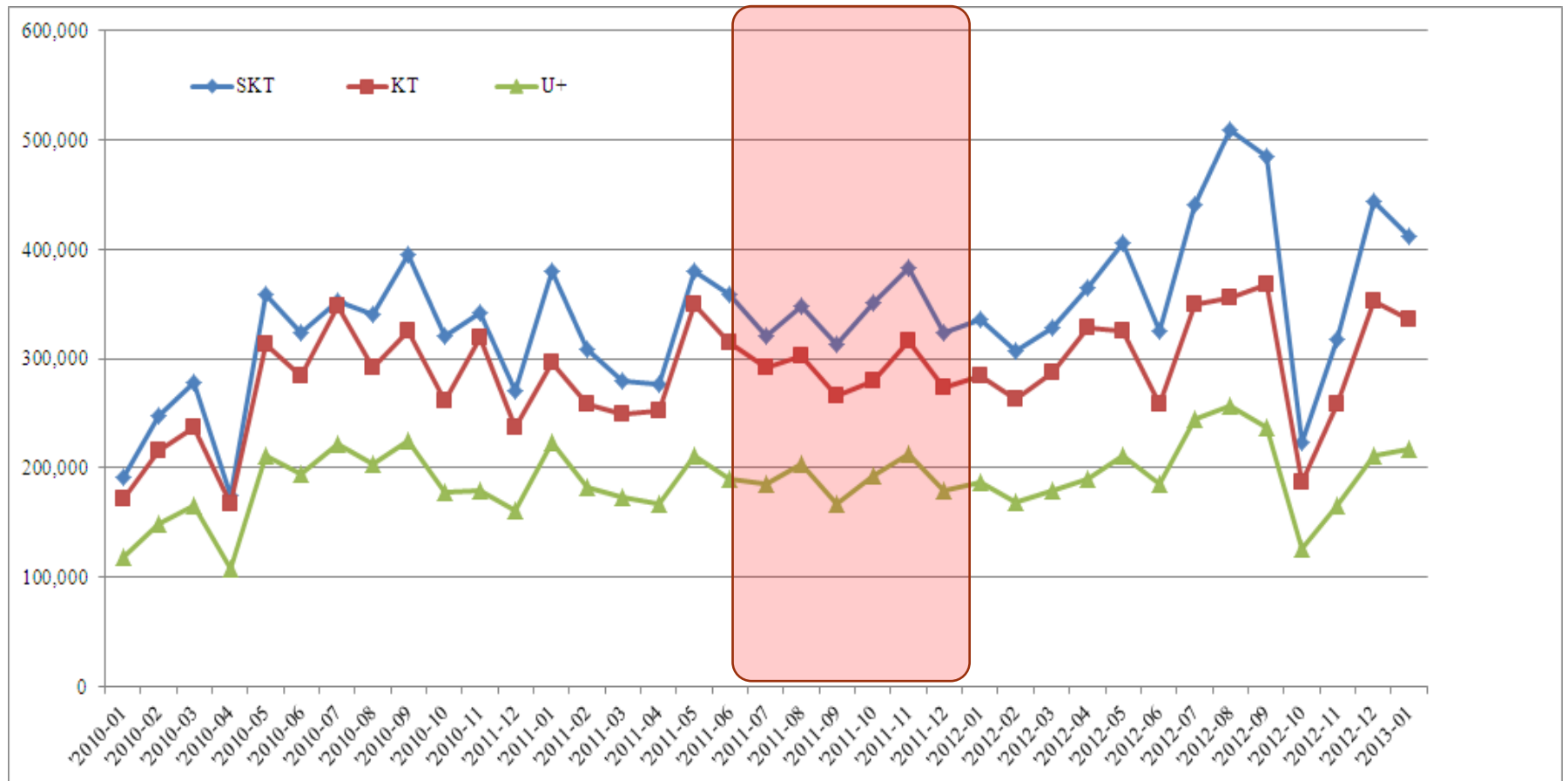
# Telecommunication Subscriber

## Churn Trend: Inflow



# Telecommunication Subscriber

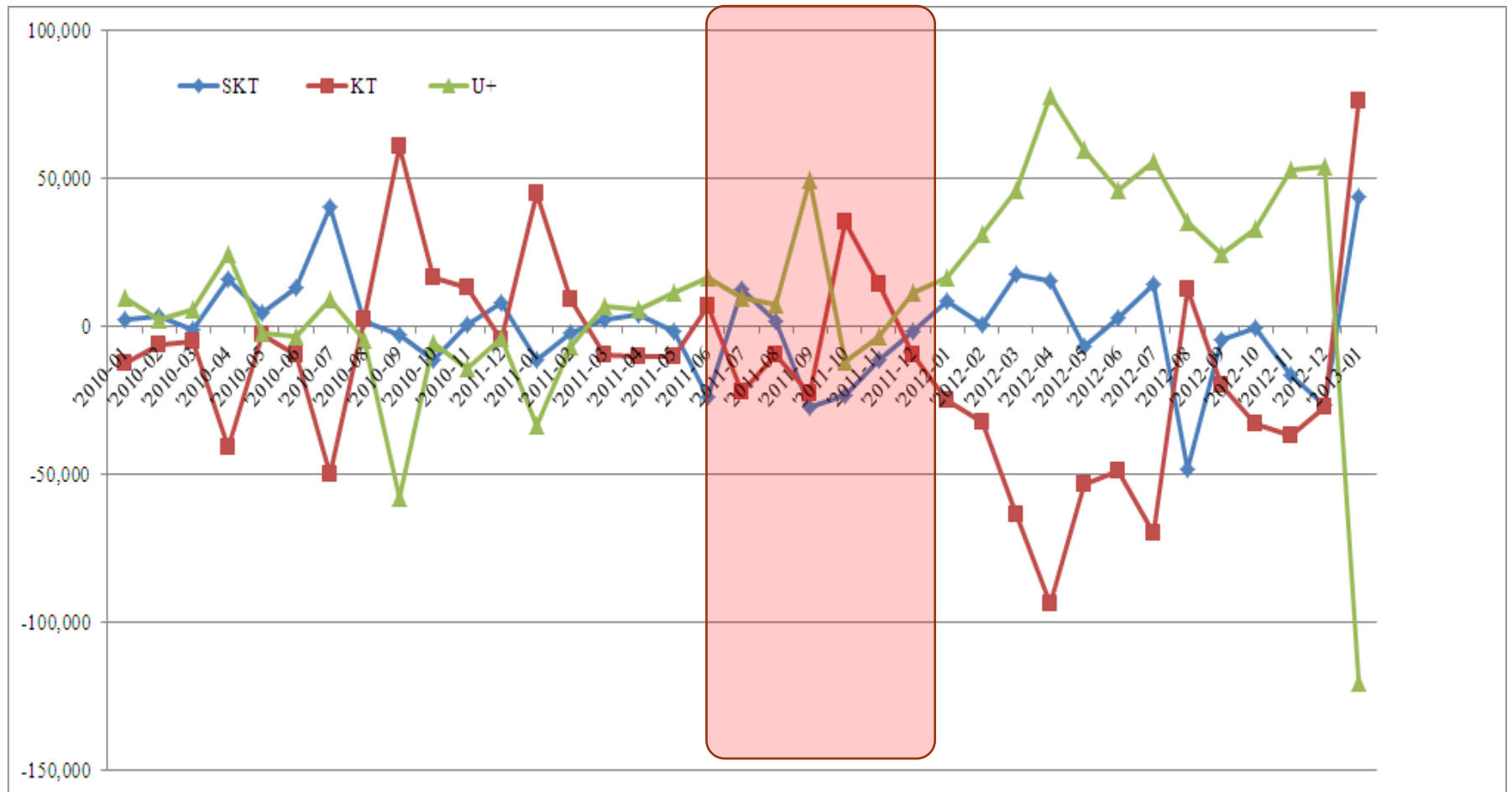
## Churn Trend: Outflow





# Telecommunication Subscriber - Network effect

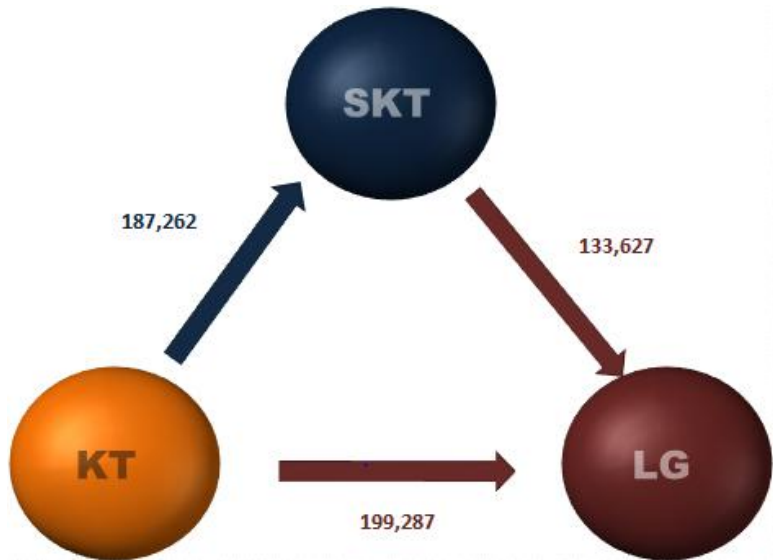
## Churn Trend: Inflow - Outflow



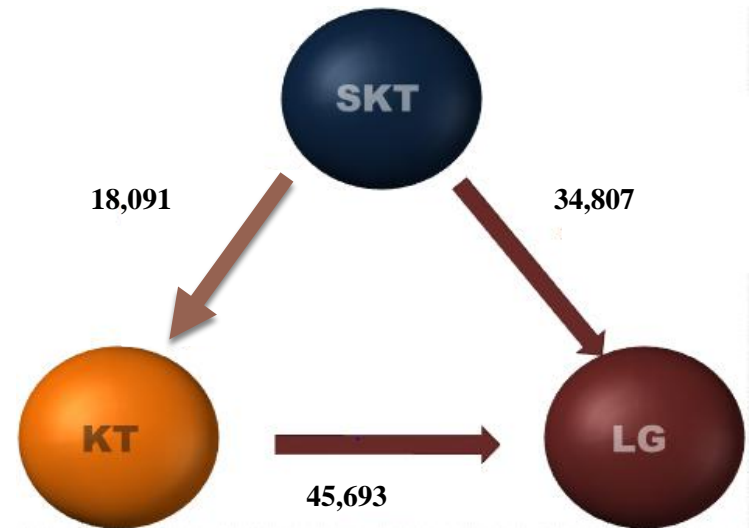
# Telecommunication Subscriber

## Churn Trend: Among the Market

➤ 2012. 1 ~ 2012. 7



➤ 2012. 8 ~ 2013. 1



# Telecommunication Subscriber

## Telecommunication Subscriber in China: 2G(CDMA)

2G Subscriber

10 Thousand

70000

60000

50000

40000

30000

20000

10000

0

	2009	2010	2011	2012	2013.11
China Mobile 2G	51887.2	55893.7	60423	62237	58217.6
China Unicom 2G	14485	15146.5	16297	16285.6	15950.4
China Telecom 2G	5202	7573	9296	9157	8309

# Telecommunication Subscriber

## Telecommunication Subscriber in China: 3G

3G Subscriber

10 Thousand

20000

18000

16000

14000

12000

10000

8000

6000

4000

2000

0

2009

2010

2011

2012

2013.11

China Mobile 3G

340.8

2070.2

5121

8792.8

18112

China Unicom 3G

274

1406

4001

7645.6

11908.1

China Telecom 3G

407

1229

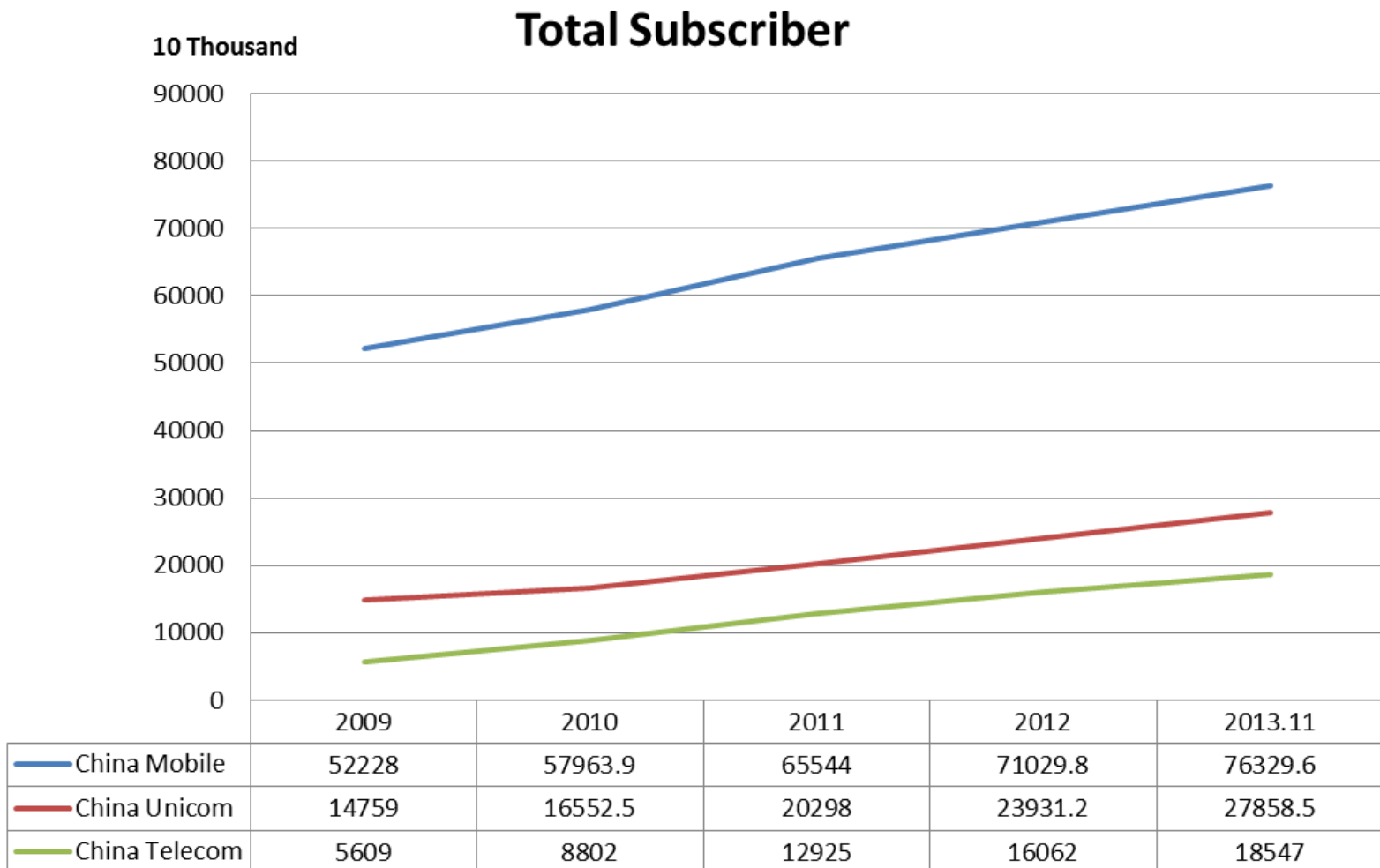
3629

6905

10238

# Telecommunication Subscriber

## Telecommunication Subscriber in China: Total



# Telecommunication Calling Plan

## 3G Calling Plan in Korea

요금제	월정액	기본제공								
		Voice			Message			Data		
		SKT	KT	LGU+	SKT	KT	LGU+	SKT	KT	LGU+
스마트폰34	34,000	150	150	150	150	200	150	500MB	100MB	1GB
스마트폰44	44,000	200	200	200	200	300	300	500MB	500MB	1GB
스마트폰54	54,000	300	300	300	300	300	300	무제한	무제한	무제한
스마트폰64	64,000	400	400	400	400	400	400	무제한	무제한	무제한
스마트폰74	74,000	600	600	600	600	600	600	무제한	무제한	무제한
스마트폰94	94,000	1,000	800	1,000	1,000	1,000	1,000	무제한	무제한	무제한

# Telecommunication Calling Plan

## LTE Calling Plan in Korea

요금제	월정액	기본제공								
		음성			문자			데이터		
		SKT	KT	LGU+	SKT	KT	LGU+	SKT	KT	LGU+
LTE34	34,000	120	160	160	200	200	200	550MB	750MB(+150MB)	750MB
LTE42	42,000	180	200	200	200	200	200	1.1GB	1.5GB(+0.3GB)	1.5GB
LTE52	52,000	250	250	250	250	250	250	2GB	2.5GB(0.5GB)	2.5GB
LTE62	62,000	350	350	350	350	350	350	5GB	6GB(+1.2GB)	6GB
LTE65	65,000	없음	350	없음	없음	350	없음	없음	6GB(+1.2GB)	5GB
LTE72	72,000	450	450	500	450	450	450	9GB	10GB(+2GB)	10GB
LTE75	75,000	없음	450	없음	없음	450	없음	없음	10GB(+2GB)	없음
LTE85	85,000	650	650	750	650	650	650	13GB	14GB(+2.8GB)	14GB
LTE100	100,000	1,050	1,050	1,200	1,050	1,050	1,050	없음	20GB(+4GB)	20GB
LTE120	120,000	없음	없음	1,500	없음	없음	1,500	18GB	없음	24GB
LTE125	125,000	없음	1,250	없음	없음	2,500	없음	없음	25GB(+5GB)	없음

# Telecommunication Calling Plan

## 3G Calling Plan in China

CNY	China Mobile	
요금/월	통화시간	데이터
58	150	30M
88	350	
128	650	
158	900	
188	1200	
288	1900	
388	2600	
588	4000	
888	6000	

CNY	China Unicom PLAN A	
요금/월	통화시간	데이터
46	50	150MB
66	50	300MB
96	240	300MB
126	320	400MB
156	420	500MB
186	510	650MB
226	700	750MB
286	900	950MB
386	1250	1.3GB
586	1950	2GB
886	3000	3GB
CNY	China Unicom PLAN B	
요금/월	통화시간	데이터
46	120	40MB
66	200	60MB
96	450	80MB
126	680	100MB
156	920	120MB
186	1180	150MB
CNY	China Unicom PLAN C	
요금/월	본지역내 통화시간	데이터
46	260	40MB
66	380	60MB
96	550	80MB

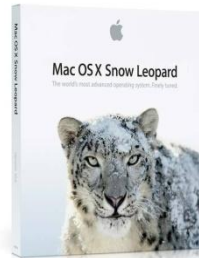
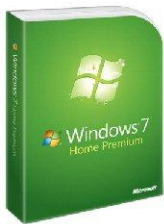
CNY	China Telecom	
요금/월	통화시간	데이터
49	100	200M
69	150	300M
89	240	400M
129	330	600M
159	450	750M
189	600	1G
289	990	1.5G
389	1290	2G
489	1590	3G
589	2000	4G
889	3000	5G
China Telecom		
요금/월	통화시간	데이터
59	160	60M
89	360	120M
129	660	
159	900	
389	2600	
189	1200	



# Mega trend in digital market

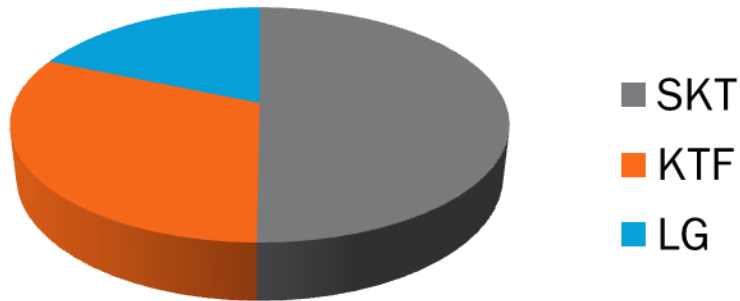
## Winner takes it all

- Digital market is always ruled by leader

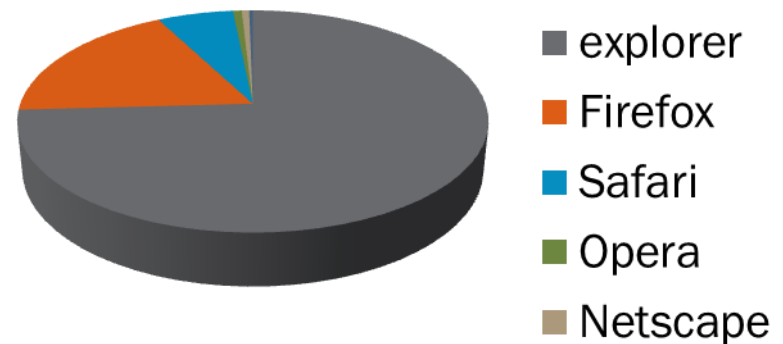


# Mega trend in digital market

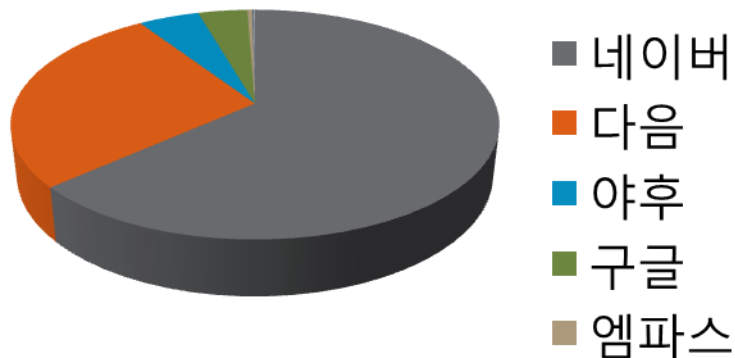
## 국내 통신사 가입자 비율



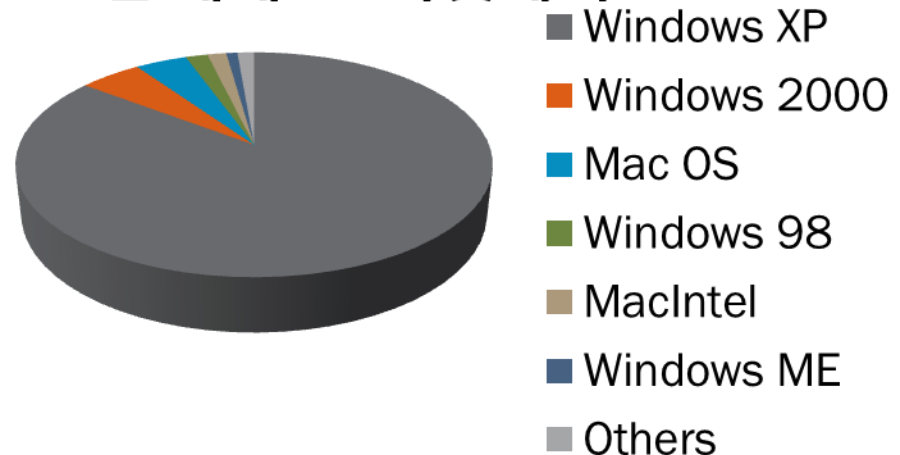
## 인터넷 브라우저 마켓쉐어



## 한국 검색시장 마켓쉐어



## 전 세계 OS 마켓쉐어



# Mega trend in digital market

## Winner takes it all

- Top ten U.S. companies such as Google, Oracle and MS have secured cash, 48% higher than 2 years ago.
- Those cash-powerful companies engulf their competitors expanding new business.



# Mega trend in digital market

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## Why winner takes it all?

- **Network effect** : the promotional effect from peer influence, word-of mouth, social norm and etc.
- **Bandwagon effect** : Most potential users have tendency to use what majorities use.
- **Swing effect** : Market dominance has inertia to accelerate its power more as time goes by.

# Mega trend in digital market



Acquisition date	Company	Business	Valuation millions USD	Acquisition date	Company	Business	Valuation millions USD
Mar 25, 2013	Tekelec	Leading provider of network signaling, policy control, and subscriber data management solutions	N/A	Feb 9, 2012	Taleo	Talent Management Software	\$1,900
Mar 13, 2013	Nimbula	IaaS offering similar to Amazon EC2, but available in a private cloud deployment model	N/A	Oct 24, 2011	RightNow Technologies	Cloud-based CRM	\$1,500
Feb 4, 2013	Acme Packet	Networking hardware for telecommunications service providers	\$2,100	Oct 18, 2011	Endeca	E-commerce & Business Intelligence	\$1,075
Dec 20, 2012	Eloqua	Marketing Automation platform for managing sales and marketing leads across an enterprise.	\$810	Sept 22, 2011	GoAhead	Service Availability and Management Software	N/A
Dec 13, 2012	DataRaker	Cloud based Analytic platform to transform meter, customer, network and asset Big Data into actionable business intelligence.	N/A	July 28, 2011	InQuira	Service Knowledge Management Software	N/A
Nov 8, 2012	Instantis	Cloud and premises-based Project Portfolio Management (PPM) applications and services.	N/A	July 21, 2011	Ksplice	Rebootless Linux kernel updates	N/A
Sept 17, 2012	SelectMinds	Cloud-based social talent sourcing and corporate alumni management application	N/A	June 2011	FatWire Software	Web Content and Web Experience Management (WCM and WEM) Software	N/A
Jul 30, 2012	Xsigo Systems	Provider of network virtualization technology that simplifies cloud infrastructure and operations	N/A	June 2011	Pillar Data Systems	Storage systems	N/A
Jul 19, 2012	Skire	Solutions provider for managing capital projects, facilities and real estate	N/A	April 2011	Datanomic	Data Quality Software	N/A
Jul 10, 2012	Involver	Social media development platform	N/A	February 2011	Ndevr - Select IP only	Environmental Reporting and Business Intelligence	N/A
Jun 5, 2012	Collective Intellect	Cloud-based social intelligence solutions	N/A	November 2010	Art Technology Group	Ecommerce software vendor	\$1,000
May 23, 2012	Vitruue	Social Marketing Platform provider	\$300 (estimated)	May 2010	Pre-Paid Software	Payment Solutions	\$73
Mar 29, 2012	ClearTrial	Cloud-based Clinical Trial Operations and Analytics products	N/A	May 2010	Market2Lead	Applications	N/A
				May 20, 2010	Secerno	Data protection hardware and software	N/A
				April 16, 2010	Phase Forward	Applications for life sciences companies and healthcare providers	\$685
				February 10, 2010	AmberPoint	Service-Oriented Architecture (SOA) management	N/A
				February 10, 2010	Convergin	Telecom Service Broker	\$85
				January 27, 2010	Sun Microsystems	Computer servers, storage, networks, Java, MySQL database, software, and services	\$7,400
				January 4, 2010	Silver Creek Systems	Product Data Quality Solutions for connecting Enterprise Systems, Customers, Suppliers and Partners.	N/A

# Mega trend in digital market



Acquisition date ↕	Company ↕	Business ↕	Country ↕	Price ↕	Used as or integrated with ↕	Acquisition date ↕	Company ↕	Business ↕	Country ↕	Price ↕	Used as or integrated with ↕
June 11, 2013	Waze	GPS navigation software	ISR	\$1,300,000,000	Google Maps	November 14, 2011	Katango	Social circle organization	USA	—	Google+
May 23, 2013	Makani Power	Airborne wind turbines	USA	—	Google X	November 10, 2011	Apture	Instantaneous search	USA	—	Google Search
April 23, 2013	Wavii	Natural Language Processing	USA	\$30,000,000	Google Knowledge Graph	October 11, 2011	SocialGrapple	Social media analytics service	CAN	—	Google+
April 12, 2013	Behavio	Social Prediction	USA	—	Google Now	September 19, 2011	DailyDeal	One deal a day service	GER	\$114,000,000	Google Offers
March 15, 2013	Web Application Server Talaria	Cloud computing	USA	—	Google Cloud	September 8, 2011	Zagat	Restaurant reviews	USA	\$151,000,000	Google Places, Google Maps
March 12, 2013	DNNresearch Inc.	Deep Neural Networks	CAN	—	Google, Google X	September 7, 2011	Zave Networks	Digital coupons	USA	—	Google Offers
February 6, 2013	Channel Intelligence	Product ecommerce	USA	\$125,000,000	Google Shopping	August 15, 2011	Motorola Mobility	Mobile device manufacturer	USA	\$12,500,000,000	Android, Google TV, Patent portfolio
November 30, 2012	BufferBox	Package delivery	CAN	\$17,000,000	Google Shopping, Android	August 1, 2011	Dealmap	One deal a day service	USA	—	Google Offers
November 28, 2012	Incentive Targeting Inc.	Digital coupons	USA	—	Google Offers	July 23, 2011	PittPatt	Facial recognition system	USA	—	Android
October 1, 2012	Viewdle	Facial recognition	UKR	\$45,000,000	Android	July 21, 2011	Fridge	Social groups	USA	—	Google+
September 17, 2012	Nik Software, Inc.	Photography	USA	—	Google, Android	July 8, 2011	Punchd	Loyalty program	USA	—	Google Offers
September 7, 2012	VirusTotal.com	Security	ESP	—	Google	June 18, 2011	SageTV	Media center	USA	—	GoogleTV
August 1, 2012	Wildfire Interactive	Social media marketing	USA	\$450,000,000	Google, Google+	June 9, 2011	Admeld	Online advertising	USA	\$400,000,000	DoubleClick, Invite Media
July 20, 2012	Sparrow	Mobile apps	FRA	\$25,000,000	Gmail	June 3, 2011	PostRank	Social media analytics service	CAN	—	Google
June 5, 2012	Quickoffice	Productivity Suite	USA	—	Google Docs	May 23, 2011	Sparkbuy	Product Search	USA	—	Google Shopping
June 4, 2012	Meebo	Instant Messaging	USA	\$100,000,000	Google Hangouts	April 26, 2011	TalkBin	Mobile software	USA	—	Android
April 2, 2012	TxVia	Online Payment	USA	—	Google Wallet	April 8, 2011	PushLife	Service provider	CAN	\$25,000,000	Google
March 16, 2012	Milk, Inc.	Social networking service	USA	—	Google+	March 16, 2011	Green Parrot Pictures	Digital video	IRL	—	YouTube
December 13, 2011	Clever Sense	Mobile apps	USA	—	Android	March 7, 2011	Next New Networks	Online video	USA	—	YouTube
December 9, 2011	RightsFlow	Music rights management	USA	—	YouTube	March 7, 2011	BeatThatQuote.com	Price comparison service	UK	£37,700,000	Google Advisor

# Mega trend in digital market



Date	Company	Business	Country	Value (USD)	Derived products	Date	Company	Business	Country	Value (USD)	Derived products
March 23, 2013	WiFiSlam	Indoor location	United States	US\$20,000,000	Maps	March 2005	Schemasoft	Software	Canada	—	File formatting (iWork)
September 27, 2012	Particle	HTML5 web app firm	United States	—	Web	July 1, 2002	Emagic	Music production software	Germany	US\$30,000,000	Logic & GarageBand
July 27, 2012	AuthenTec	Security hardware and software for PCs and mobile devices	United States	US\$356,000,000	iPhones and iPads	June 21, 2002	Prismo Graphics	Special-effects titling software for film and video	United States	—	LiveType (Final Cut Studio)
February 23, 2012	Chomp	App search engine	United States	US\$50,000,000	iPhones and iPads	June 20, 2002	Propel Software	Software	United States	—	
December 20, 2011	Anobit	Flash Memory	Israel	US\$390,000,000	iPhones and iPads	June 11, 2002	Silicon Grail Corp-Chalice <small>[note 5]</small>	Digital effects software	United States	—	Final Cut
August 1, 2011	C3 Technologies	3D Mapping	Sweden	US\$267,000,000	Maps	April 4, 2002	Zayante	FireWire chips and software	United States	US\$13,000,000	FireWire
September 14, 2010	IMSense	High Dynamic Range Photography	United Kingdom	—	iPhone software (camera)	February 1, 2002	Nothing Real	Special effects software	United States	US\$15,000,000	Shake
September 20, 2010	Polar Rose	Face-Recognition	Sweden	US\$29,000,000	iPhone software (camera)	December 31, 2001	PowerSchool	Online info systems services	United States	US\$62,000,000	PowerSchool
July 14, 2010	Poly9	Web-based mapping	Canada	—	Maps	July 9, 2001	Spruce Technologies <small>[note 4]</small>	Graphics software	United States	—	DVD Studio Pro
April 27, 2010	Siri	Voice Control Software	United States	—	Siri	May 11, 2001	bluebuzz	Internet service provider	United States	—	—
April 27, 2010	Intrinsity	Semiconductors	United States	US\$121,000,000	Apple A5 (SoC)	2001	Bluefish Labs	Productivity software	United States	—	iWork
January 5, 2010	Quattro Wireless	Mobile advertising	United States	US\$275,000,000	iAd	2000 (Q4)	SoundJam MP <small>[note 3]</small>	Software	United States	—	iTunes
December 6, 2009	Lala.com	Music streaming	United States	US\$17,000,000	iCloud, iTunes Match	April 11, 2000	Astarte-DVD Authoring Software <small>[note 2]</small>	Software	Germany	—	DVD Studio Pro
July 7, 2009	Placebase	Maps	United States	—	Maps	January 7, 2000	NetSelector	Internet software	United States	—	—
April 24, 2008	P.A. Semi	Semiconductors	United States	US\$278,000,000	Apple A4, A5 (SoC)	November 3, 1999	Raycer Graphics	Computer graphic chips	United States	US\$15,000,000	—
December 4, 2006	Proximity	Software	Australia	—	Final Cut Server	January 8, 1999	Xemplar Education	Software	United Kingdom	US\$4,926,000	—
October 16, 2006	Silicon Color	Software	United States	—	Apple Color (Final Cut Studio)						
April 2005	FingerWorks	Gesture recognition company	United States	—	iOS multitouch						

# Mega trend in digital market

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## Telecommunication market Continuously changes

- **MCI (worldcom)'s bankruptcy** : MCI, an once the top second long distance telecommunication company, could not catch up with the new mobile technology, and fell behind.
- **Eastman Kodak's collapse** : Less understanding in mega trend of film market.
- **Smith Corona's collapse** : typewriter
- **Saehan's collapse** : Overlooked the flow from magnetic tape to CD disc, and expanded its magnetic tape business.



# Mega trend in digital market

**No more frequency Sales**

**Diversify the business with promising services**

**App store**

**IPTV**

**AR**

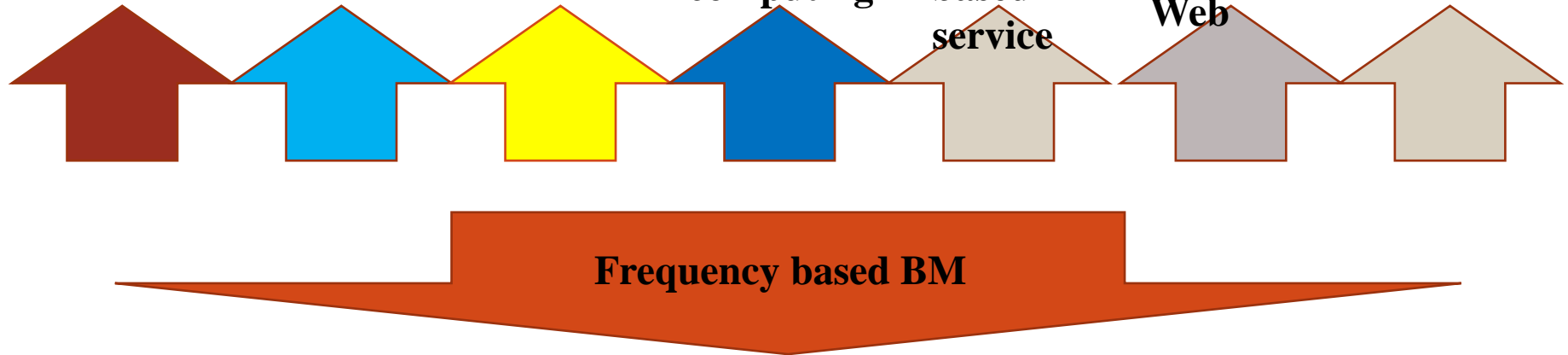
**Cloud  
computing**

**LBS  
based  
service**

**Semantic  
Web**

**SNS**

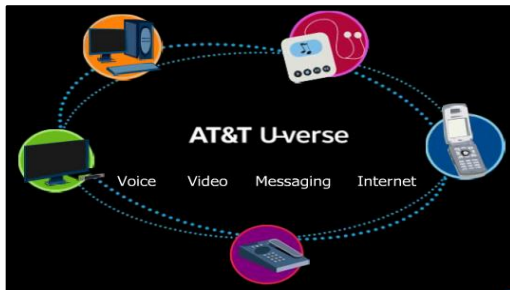
**Frequency based BM**



# Mega trend in digital market

## No more frequency Sales

- Smart phone enables much more diverse services.
- Global IT-zila's participation and competition with communication companies
- Emergence of Convergent and bundling BM



**AT&T U-verse**



**Verizon 4PS**

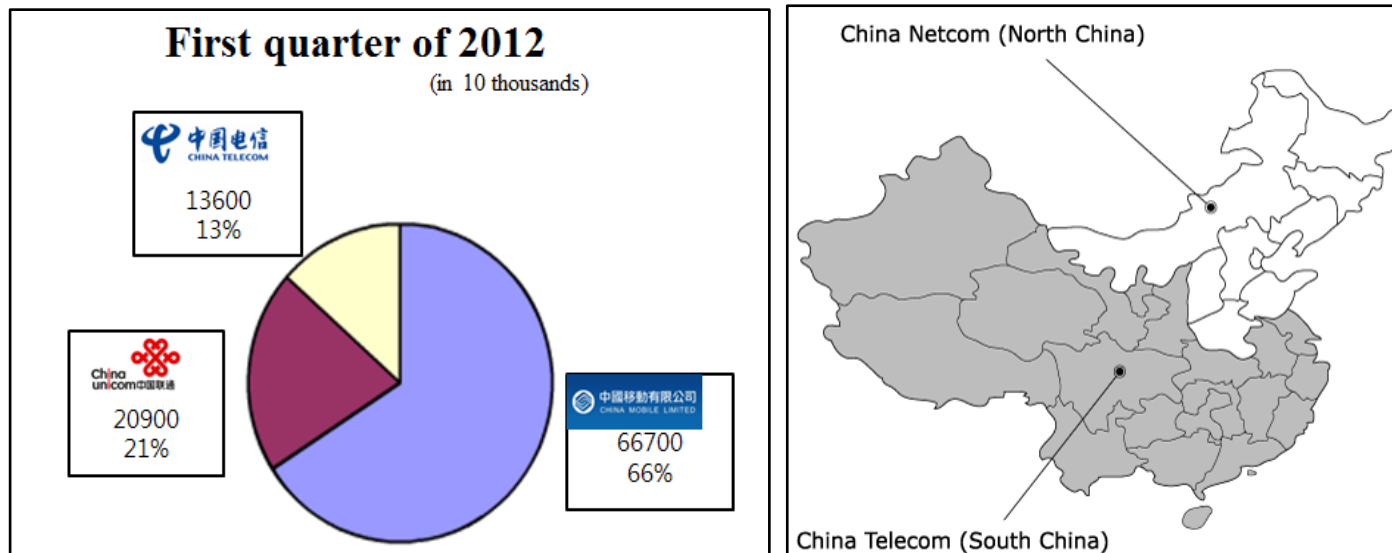
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## 2. Present CT

# Present CT

## CT's image In China

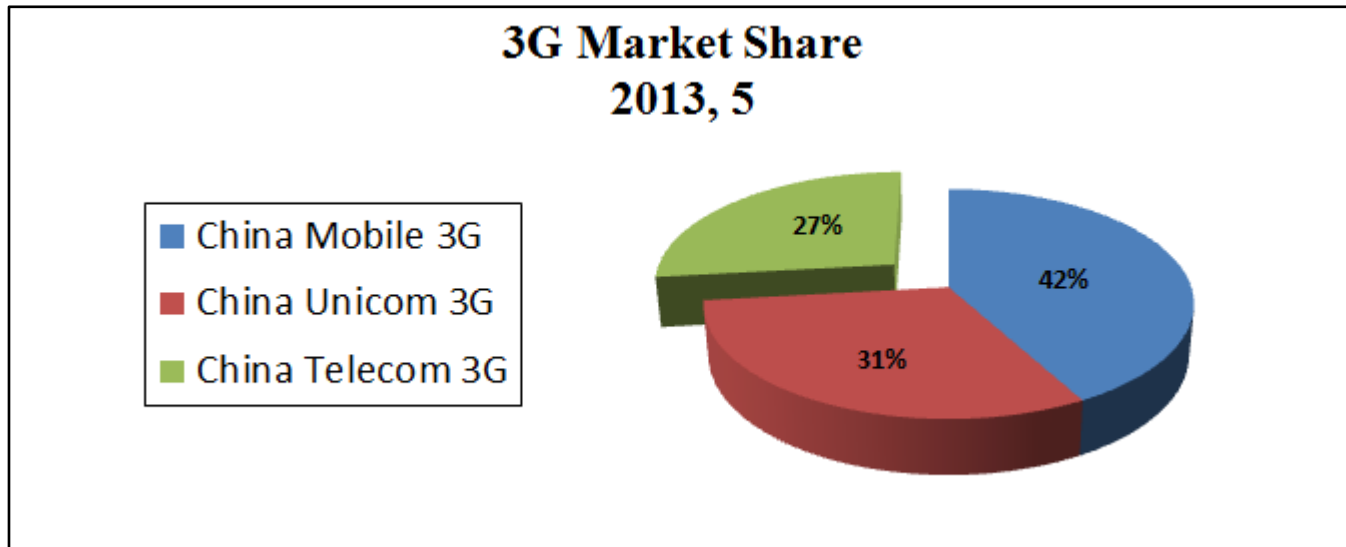
- Largest fixed line and data communications carrier
- Third largest mobile telecommunication provider
- Has an overwhelming market share in the south



# Present CT

## CT's image In China

- **A newcomer in mobile telecommunication**
- **Purchase China Unicom's nationwide CDMA business and assets on 2008**
- **One of the major 3G mobile service providers**



# Present CT

## CT's image In Korea or World

- Extra-large State-owned telecom operator in China
- Top 500 Global Companies

### GLOBAL 500 Our annual ranking of the world's largest corporations

[Full List](#)[By Location](#)[CEOs](#)[Top Companies](#)

#### 221. China Telecommunications

[221 of 500](#)[f Recommend](#) 0[t Tweet](#) 0[in Share](#)[+1](#) 0[Email](#)  
[Print](#)

**Rank:** 221 (Previous rank: 222)

**CEO:** Wang Xiaochu

**Employees:** 491,447

**Address:** 31 Financial St.  
Beijing, 100032

**Country:** China

**Website:** [www.chinatelecom.com.cn](http://www.chinatelecom.com.cn)

[Subscribe to Fortune Magazine](#)

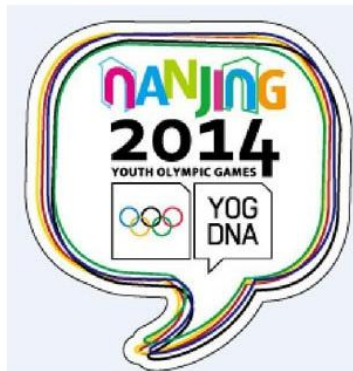
# Present CT

## CT's image In Korea or World

- **World's largest CDMA carrier**
- **Exclusive Telecommunications Partner of Nanjing 2014 Summer Youth Olympic Games**
- **China Telecom targets UK market ahead of London Olympics**

### CT Becomes Partner of Nanjing 2014

2012-08-17-09:00 NYOG Official Website



RAW DATA

### China Telecom to Start Mobile Service in Britain



Chris Ratcliffe/Bloomberg News

A London store operated by Everything Everywhere, whose network will be used by China Telecom for its new British service.

By KEVIN J. O'BRIEN  
Published: January 15, 2012

## LTE service in China

### 중국, 복수 표준 4G 허용 방침 밝혀

연말뉴스 | 기사입력 2013-07-25 16:23

자국 주도 LTE-TDD 외 LTE-FDD도 허용 시사

(베이징=연말뉴스) 차대운 특파원 = 중국 정부가 4세대(4G) 이동통신 표준으로 자국이 주도한 시분할 방식 통템에별루션(LTE-TDD)과 미국, 한국, 유럽 등이 이미 채택한 주파수 분할 방식 통템에별루션(LTE-FDD)을 동시에 허용하겠다는 뜻을 시사했다.

25일 베이징신보(北京晨報)에 따르면 공업정보화부 통신발전국 주권(祝軍) 부국장은 "제 때 4G 영업 허가를 내 줄 것"이라며 "중국 정부는 기술 면에서 중립적인 입장을 취하고 있다"고 밝혔다.

중국은 아직 4G 서비스를 시작하지 않았다.

중국 국무원은 지난 12일 리커창(李克強) 총리 주재로 상무위원회를 열고 정보 인프라 강화 차원에서 연내 4G 이동통신 서비스를 개시할 것이라고 밝혔다.

### 국내 LTE-TDD 도입 논의 속도낸다

중국 최대 이동사 하반기 상용화...글로벌 통신판도 변화 미래부·와이브로 전달반`꾸러 출구전략 타당성 등 검토

박소영 기자 cat@dt.co.kr | 입력: 2013-07-28 19:58

[2013년 07월 29일자 3면 기사]

중국의 최대이동통신사인 차이나모바일이 LTE-TDD 장비업체와 단말기 공급사 선정작업에 나서는 등 상용화 준비에 적극적으로 나서고 있다. 중국내 LTE-TDD 시대가 본격화되면서, 국내에서도 기존 와이브로를 LTE-TDD로 전환하기 위한 논의도 속도를 낼 전망이다.

28일 관련업계에 따르면, 7억 가입자를 보유한 차이나모바일이 올 하반기에 중국당국의 승인을 얻어 LTE-TDD 서비스를 상용화할 예정이다.

차이나모바일은 최근 20만7000개의 기지국 장비입찰을 시작, 화웨이와 ZTE는 물론 에릭슨, 알카텔-루슨트, 노키아지멘스네트웍스 등 장비업체간 치열한 경쟁에 돌입한 상태다. 이에 앞서, 지난달에는 삼성전자와 소니를 LTE-TDD 스마트폰 1차 공급사로 선정하기도 했다.



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# 3. Future Telecommunication Market

# Future Telecommunication Market

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**Power comes from the number of users**

- **Network externality explains the utility that a given user derives from the good depends upon the number of other users who are in the same network (Katz and Shapiro, 1985).**
- **In other words, to increase more Network externality, CT should increase the size of users on the product.**

# Future Telecommunication Market

**Power comes from the number of users**

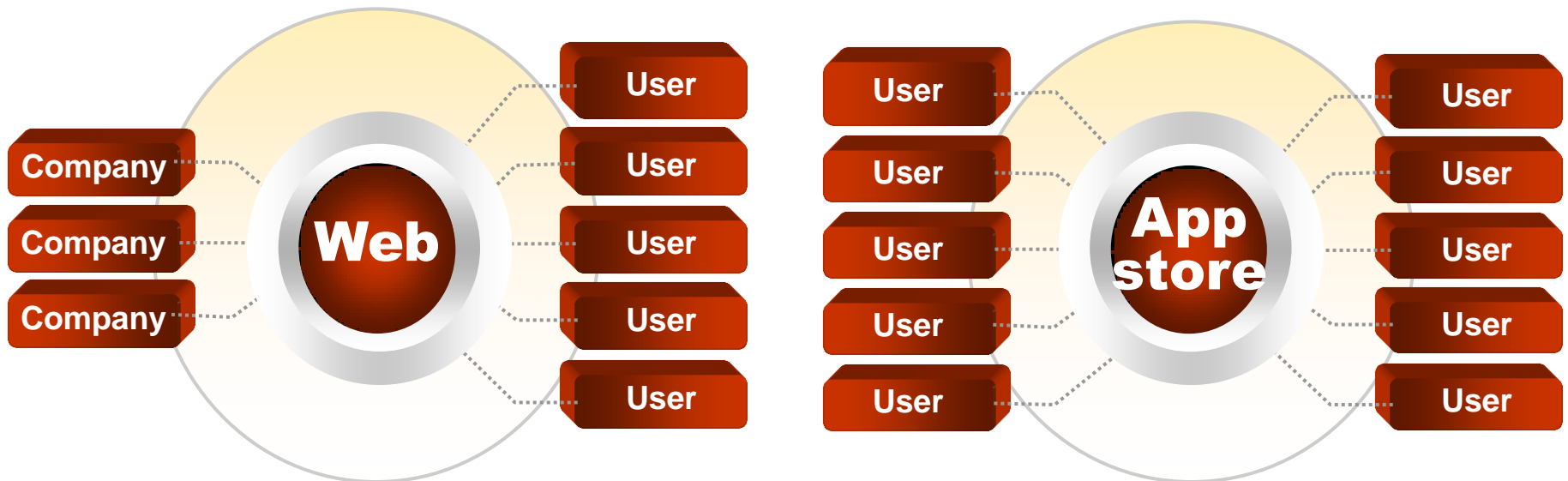
- Although these services are free of charge, many business models are derived based on the great user base.
- The fundamental user base guarantees a company the successful advertisement business.



# Future Telecommunication Market

## From Web to App

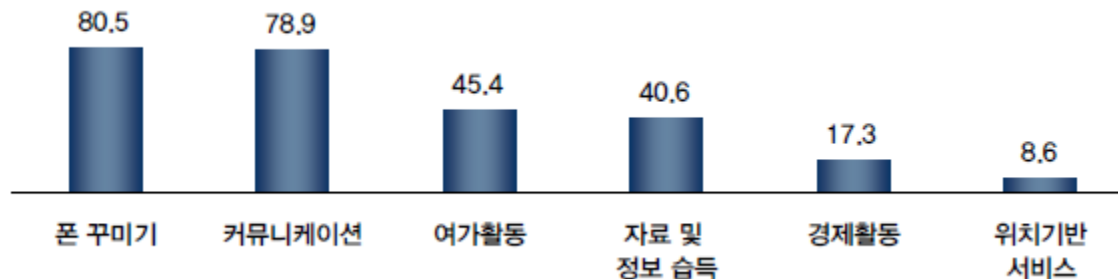
- Users used to take company-generated services through Web,
- But now, users take user-generated service through App.



# Future Telecommunication Market

## Convergence service

- Aside from the existing services on cell phone(phone elaboration, calling, messaging, communication), searching, leisure, LBS services rose.
- These new mobile functions must be focused.
- Especially, the demand for Searching, Map service, TV service appears to be crucial with the introduction of Smart phone.



# Future Telecommunication Market

## Media consumption increases

- **The amount of time of both watching and using internet has jumped 35% compared to last year.**
- **Media consumption has been diversified from traditional TV to Internet, Mobile TV and etc.**

Monthly Time Spent in Hours:Minutes – Age Demographic 4Q 2009								
	K2-11	T12-17	A18-24	A25-34	A35-49	A50-64	A65+	P2+
On Traditional TV*	112:16	103:40	120:36	142:31	157:49	187:40	209:23	153:47
Watching Timeshifted TV*	6:53	5:35	6:46	13:14	12:05	10:26	5:09	9:13
Using the Internet**	4:48	9:38	27:05	34:57	33:21	27:56	21:59	26:32
Watching Video on Internet**	1:27	2:31	6:35	4:58	3:40	2:14	1:25	3:22
Mobile Subscribers Watching Video on a Mobile Phone^	n/a^^	7:39^^	5:03	2:53	2:53	2:10	n/a^^	3:37

Source: The Nielsen Company. Based on Total Users of each Media.

# Future Telecommunication Market

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## Cloud computing rules!

- **Cloud computing service will be dominant under the Wireless LTE broadband environment.**
- **Vision and strategy are not much discussed for the next cloud computing era.**
- **Preliminary preparation is essential for the platform development and for the partnership with other businesses.**
- **New LTE service incubator must be designed.**

# Future Telecommunication Market

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**Reality + Virtuality = Metaverse**

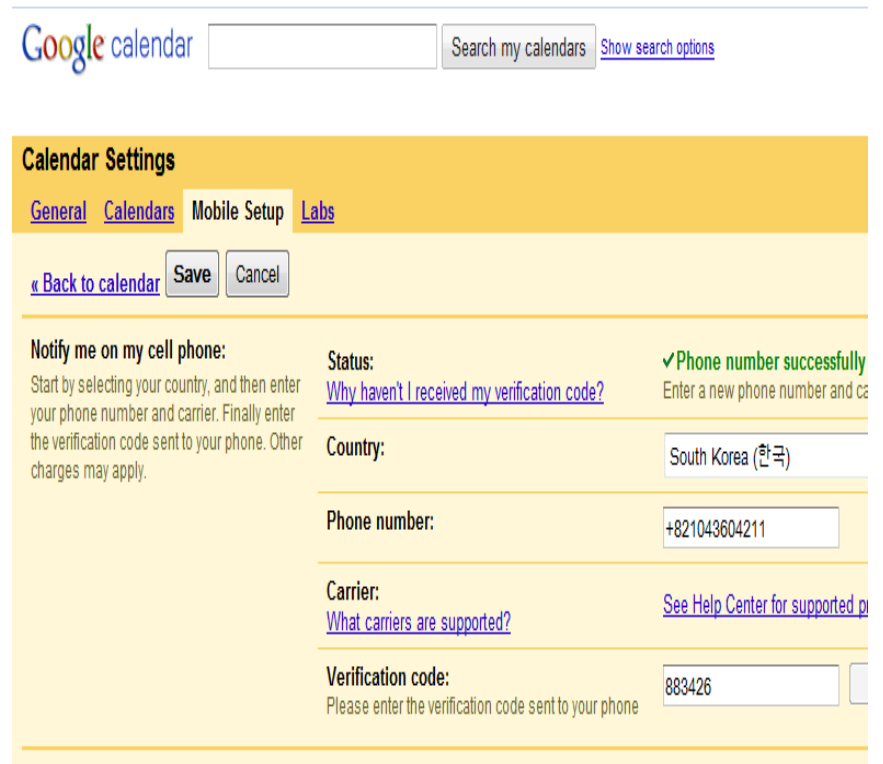
- **Augmented reality**
- **Virtual world in Mobile**
- **Mirror world**
- **Strengthened SNS**



# Future Ubiverse Market

## Why to mine data?

- **Why Google provides free personal notification service via SMS?**
- **The most crucial BM for Google and Naver is Advertising.**  
**Telecommunication service also need to focus on this BM.**
- **To be able to provide personalized advertisement, we need to mine users' behavior patterns.**

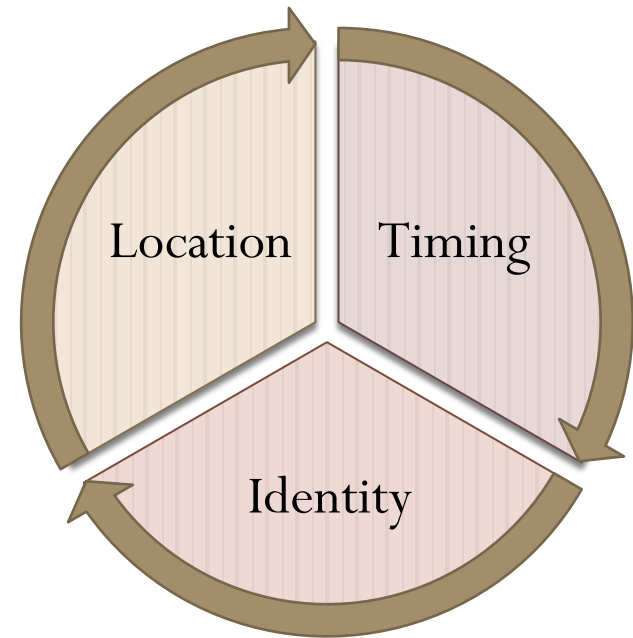


The screenshot shows the Google Calendar 'Mobile Setup' page. At the top, there's a search bar with the Google Calendar logo, a search button, and a link to 'Show search options'. Below this is a yellow header for 'Calendar Settings' with tabs for 'General', 'Calendars', 'Mobile Setup', and 'Labs'. The 'Mobile Setup' tab is active. Below the header, there are buttons for '« Back to calendar', 'Save', and 'Cancel'. The main content area is divided into two columns. The left column has a section 'Notify me on my cell phone:' with instructions: 'Start by selecting your country, and then enter your phone number and carrier. Finally enter the verification code sent to your phone. Other charges may apply.' The right column contains a 'Status:' section with a green checkmark and the text '✓Phone number successfully' and 'Enter a new phone number and ca'. Below this is a 'Country:' dropdown menu showing 'South Korea (한국)'. Then a 'Phone number:' input field with the value '+821043604211'. Below that is a 'Carrier:' section with a link 'What carriers are supported?' and a link 'See Help Center for supported p'. At the bottom is a 'Verification code:' input field with the value '883426' and a note 'Please enter the verification code sent to your phone'.

# Future Ubiverse Market

## Why to mine data?

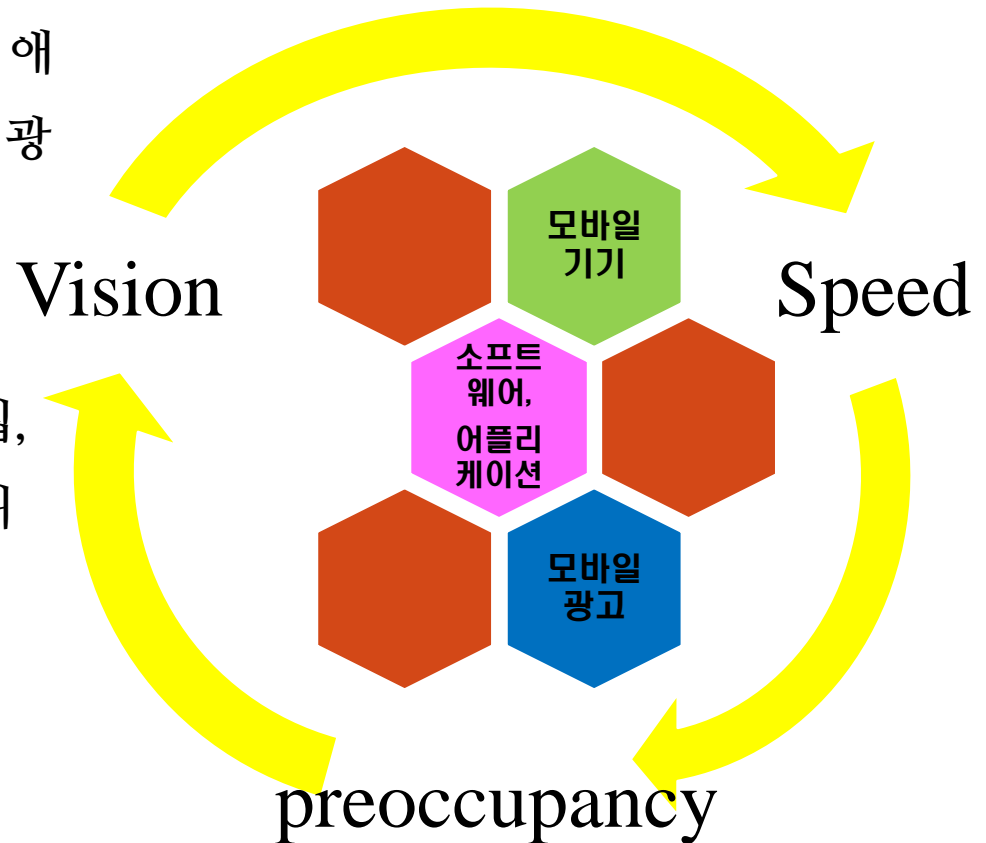
- **Timing, Location, and Identity are three important factors that can altogether make new services.**
- **After collecting the data in quantity, then find the data in quality**



# Future Ubiverse Market

## M&A War between Google and Apple

- 구글 - 랩픽시스, 범프테크놀로지, 애드몹, 그랜드센트럴 등 인수. 검색, 광고, 어플리케이션 관련 업체 위주
- 애플 - SIRI, Intrinsity 등 모바일칩, 어플리케이션 관련 중소 IT 업체 위주



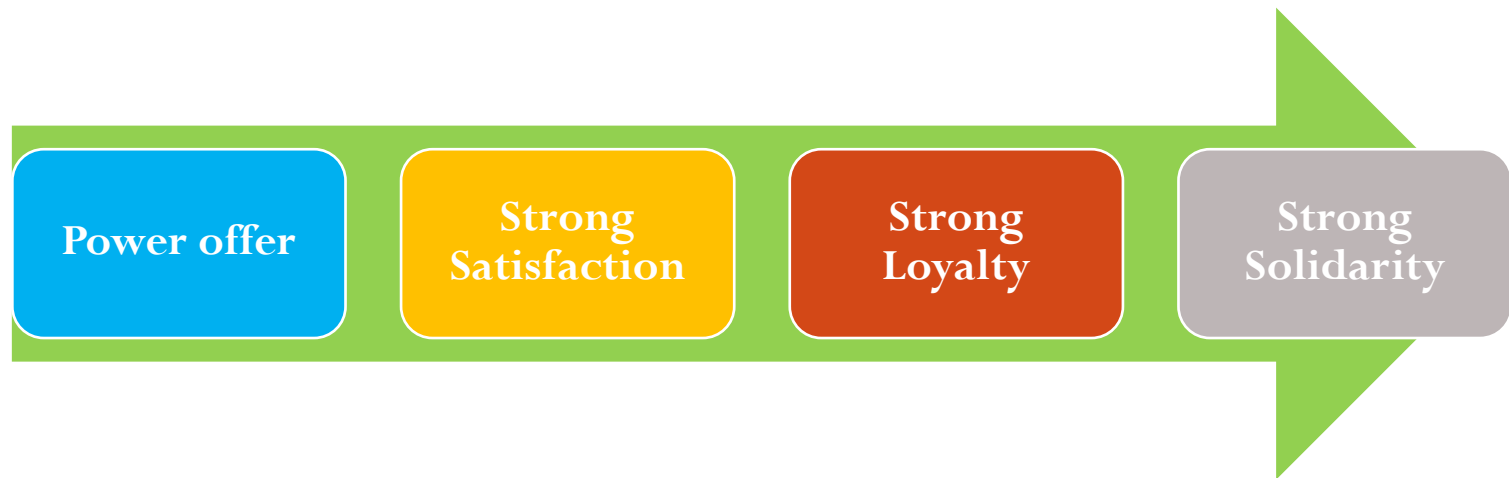
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# 4. Strategy

# To Survive in ICT Industry

## Continuous Momentum effect

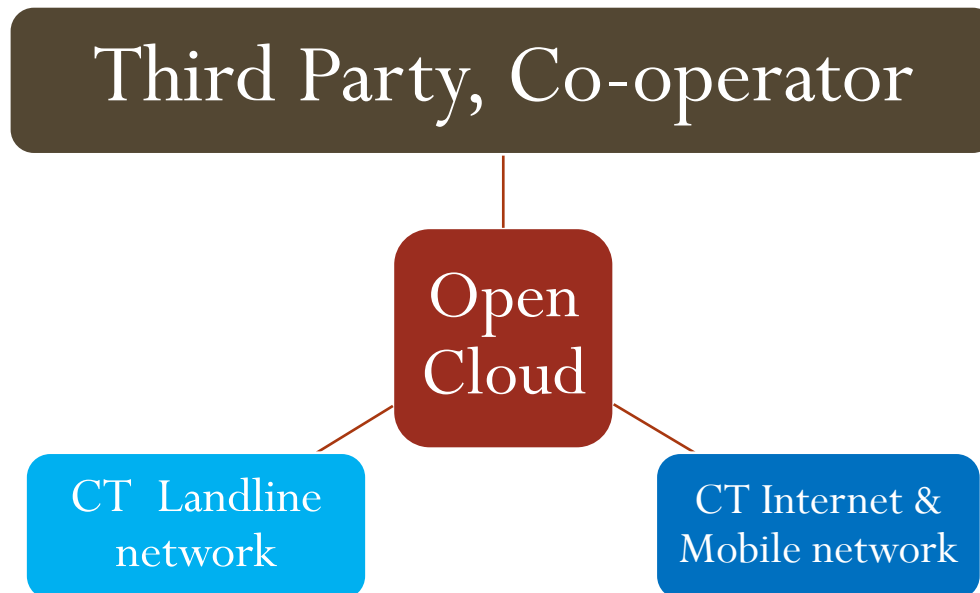
- **Power that stores energy from the previous success and accelerates company's growth.**
- **e.g. a company may not push customers to buy their products, paying lots of marketing efforts. Rather, the company may pull the customer with the products' attractiveness.**



# Be prepared for Cloud computing

## Open Cloud, not CT Cloud

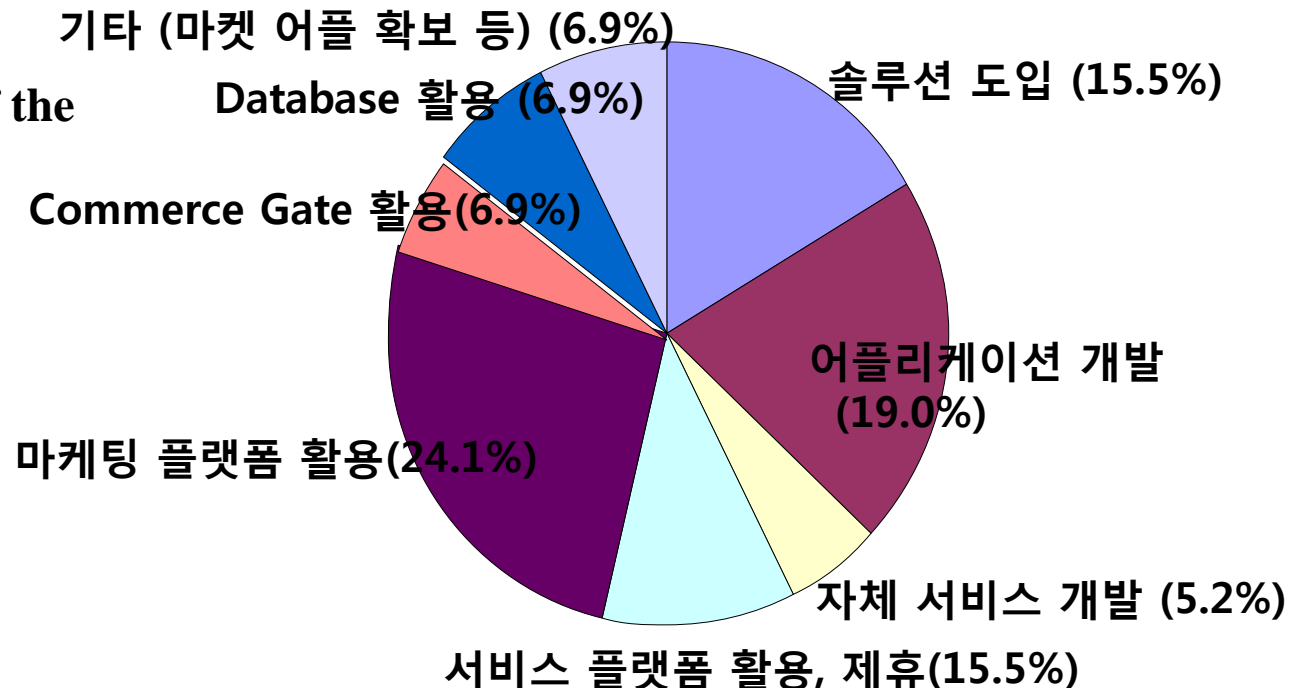
- The key to successful cloud computing depends on the number of application.
- Make a platform where everyone can join freely and voluntarily. And gets paid for what they have contributed.



# Attention to Augmented Reality

## Growing gaze at Augmented Reality

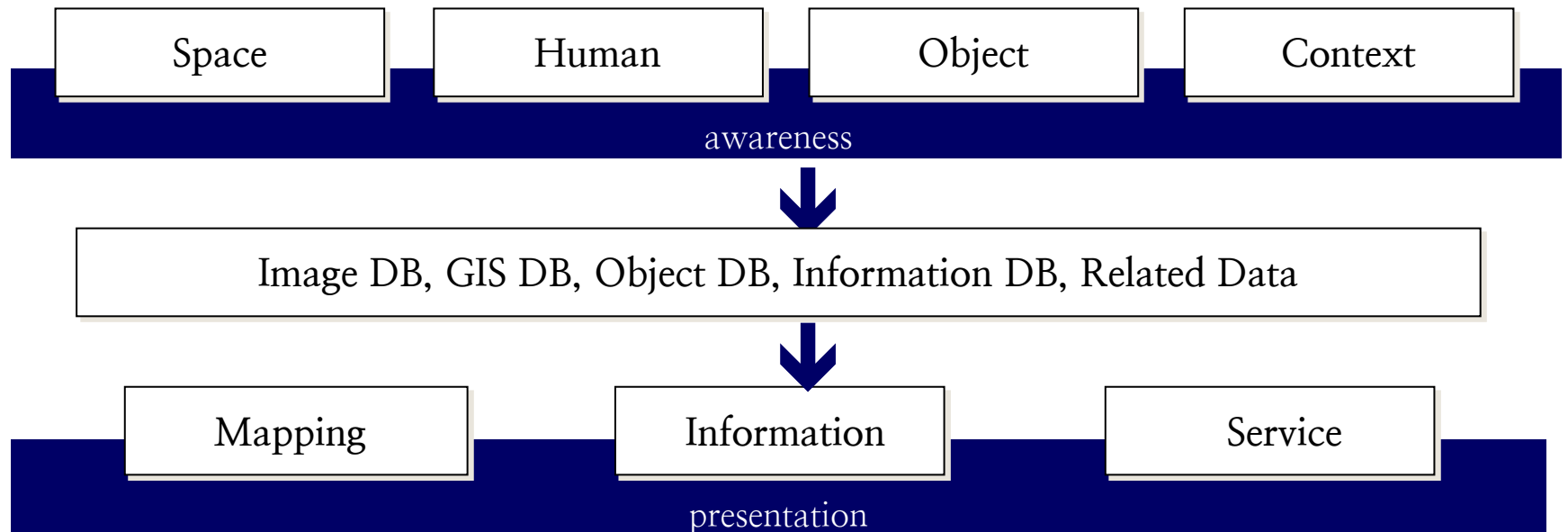
- As a new service channel, marketing method, and solutions.
- For the differentiation of the existing businesses.



# Attention to Augmented Reality

## Why Augmented Reality

- Since it's reality based, it can be exploited to virtually everywhere.
- AR services become more accessible with the help of smart phone's mass distribution.





# Attention to Augmented Reality

## AR examples



Tower Record BD.

Week's Top3 Download

1. w-girls So Hot
2. Mc Mong Circus
3. BigBang Lie

Recommend List  
TOHOSHINKI NEW Album



Same moonlight in Seattle  
as Seoul...  
PLZ wait until back!



2B Hunted

Hi! 2B Hunted!!  
Yummy legs!!

PLZ Come to my Blog.  
ID: Street Hunter

# M&A

## Search, Map, TV

### Service

#### Search

- DAUM Search
- OVJET AR Search

#### Map

- DAUM Map

#### TV

- GomTV
- AfreecaTV

#### SNS

- Me2day

### Management

#### Data mining

- Posdata
- KoreanClick

## More convergence opportunities

- **Wired-Wireless Integration**
- **Voice-Data Integration**
- **Service-Device Integration**



- **Analog-Digital Integration**
- **Drive Forces of Demand, Supply, and Technologies**

- **Balance between Public and Private Interest**
- **Feud between Telecoms and Broadcasters**

# Open Innovation

## INNOVATION 1.0

Procure-  
ment

R&D

Manufac-  
turing

Marketing

Distri-  
bution

Service

Customer

## INNOVATION 2.0

Supplier

R&D

Customized  
Design

Assembly

Distribution

Customer

Service  
Providers

Designers

Marketing

## INNOVATION 3.0

Suppliers

R&D  
C&D

(User)  
Designed  
Product

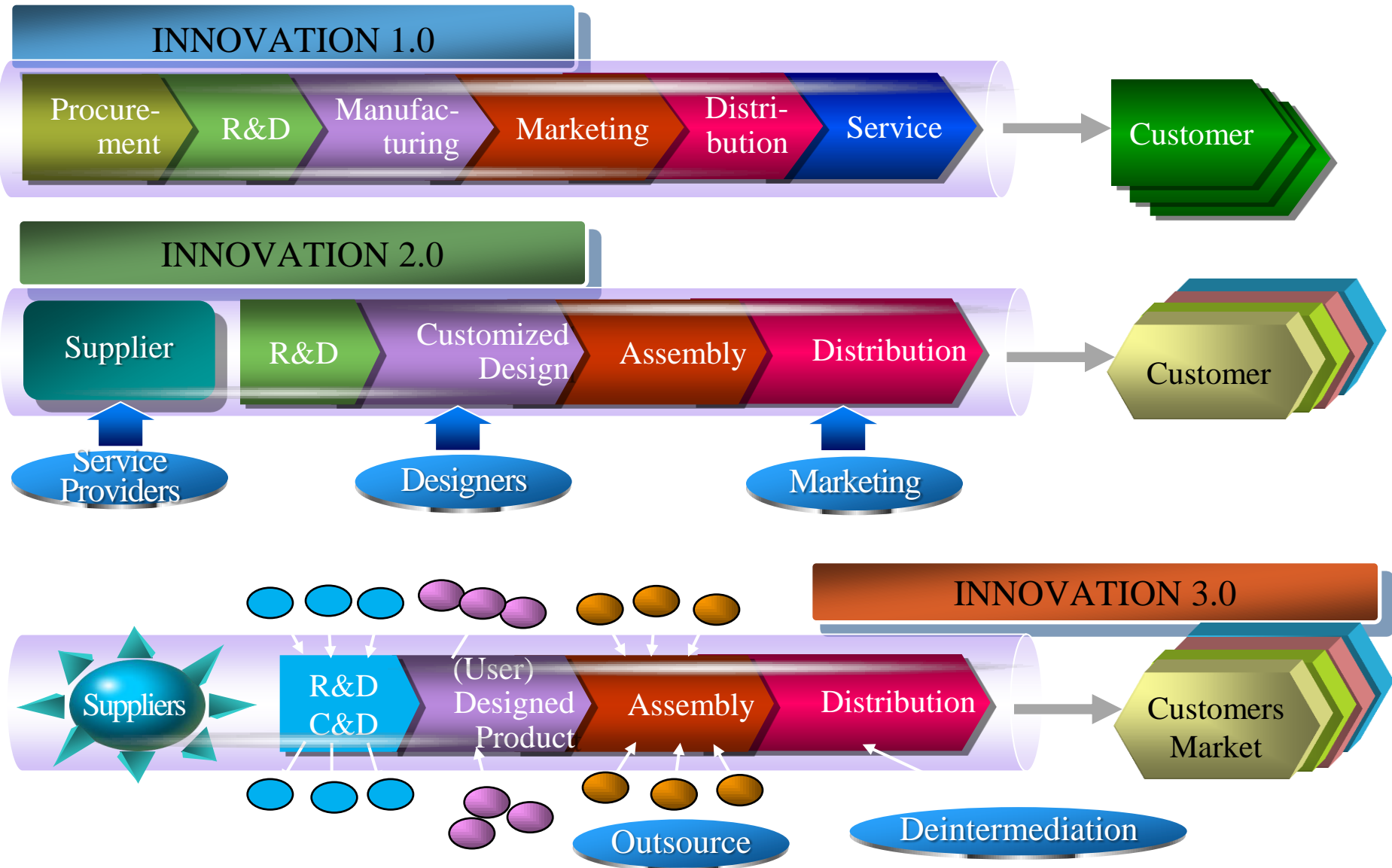
Assembly

Distribution

Customers  
Market

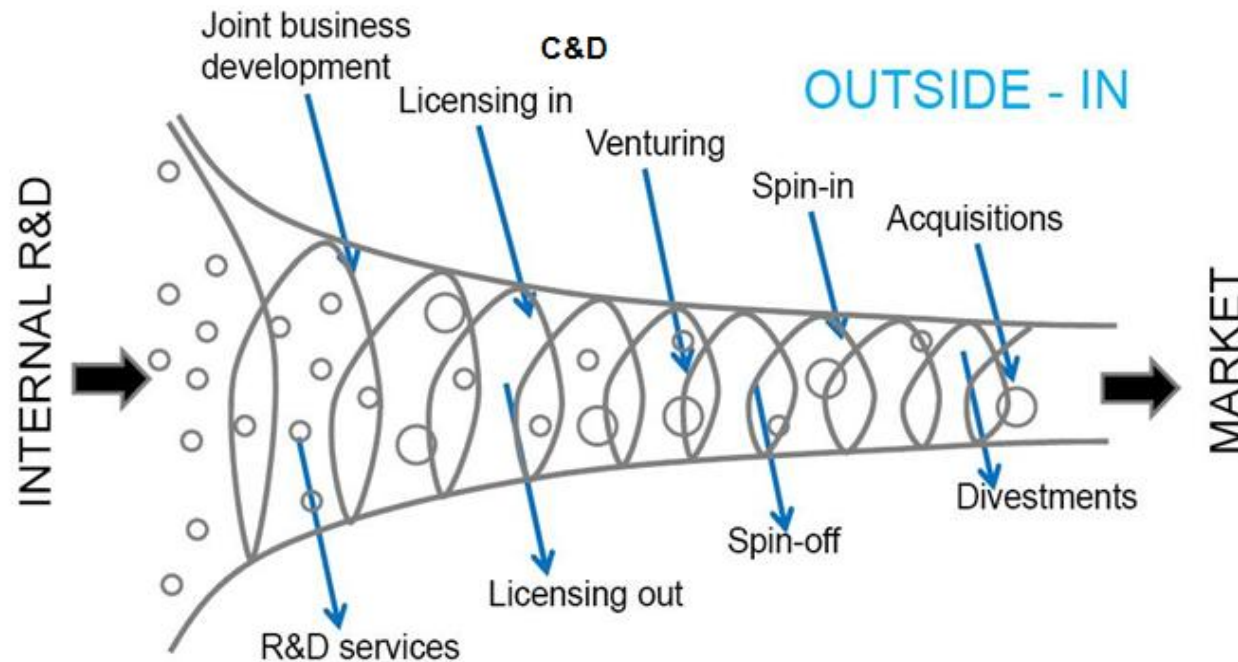
Outsource

Deintermediation



# Open Innovation

## Open innovation value chain

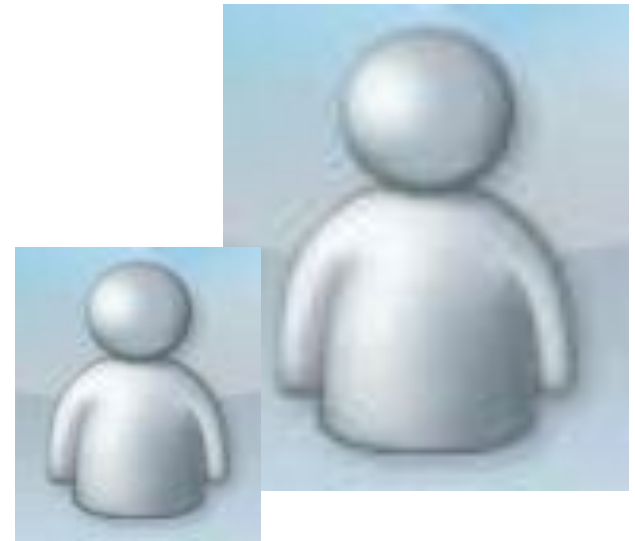
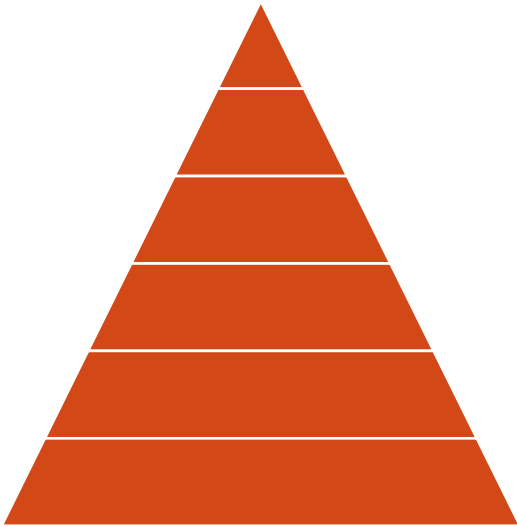


***Source: R. Kirschbaum (2007)***

# Pursue Efficient Structure

## How to draw both collaboration and creative decision making

- **Why collaboration is difficult?**
- **Why creative decision making is difficult?**



# Pursue Efficient Structure

## Google is Flat!!

- **Slim reporting procedure.**
- **Direct not the Right decision, But the Popular decision.**

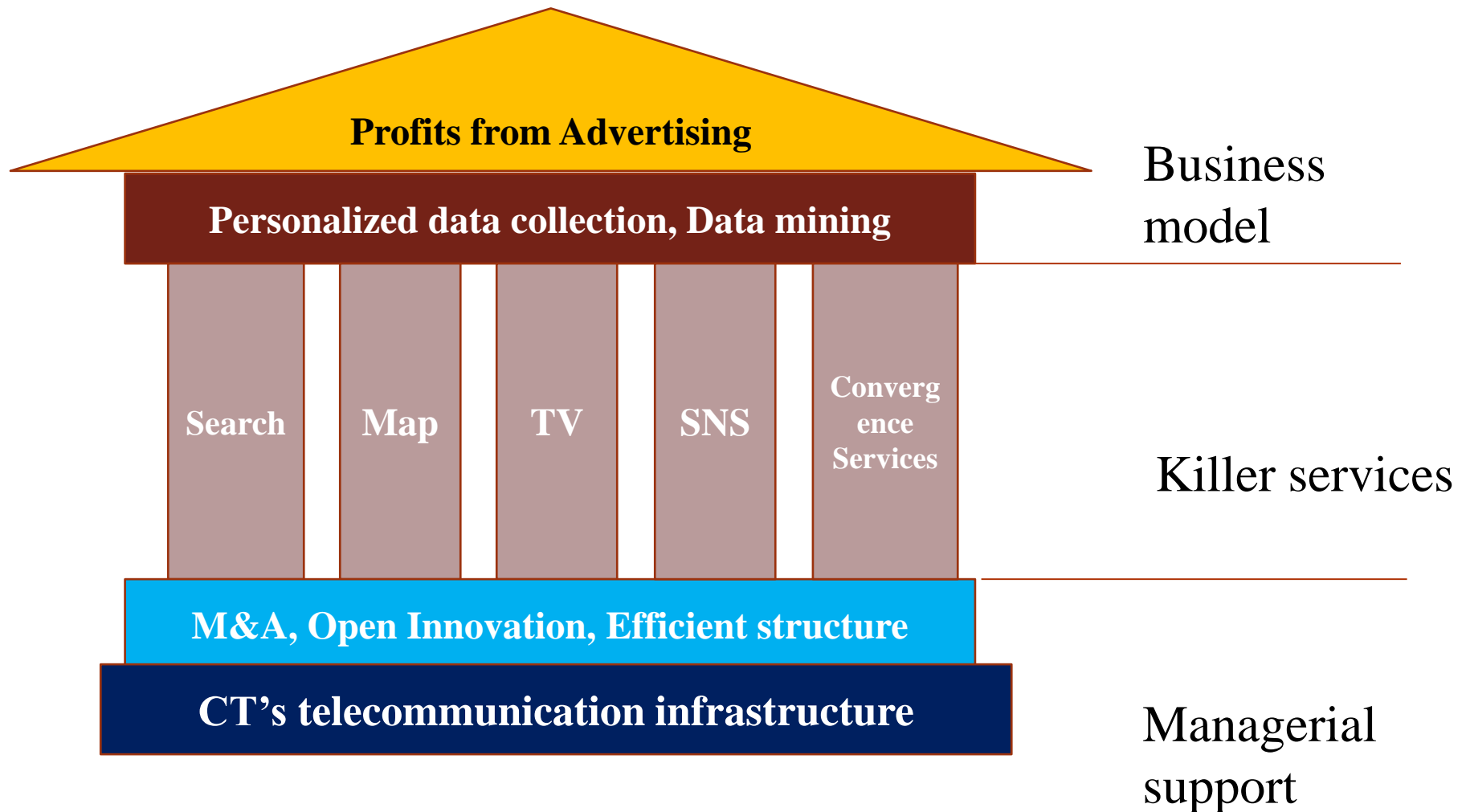


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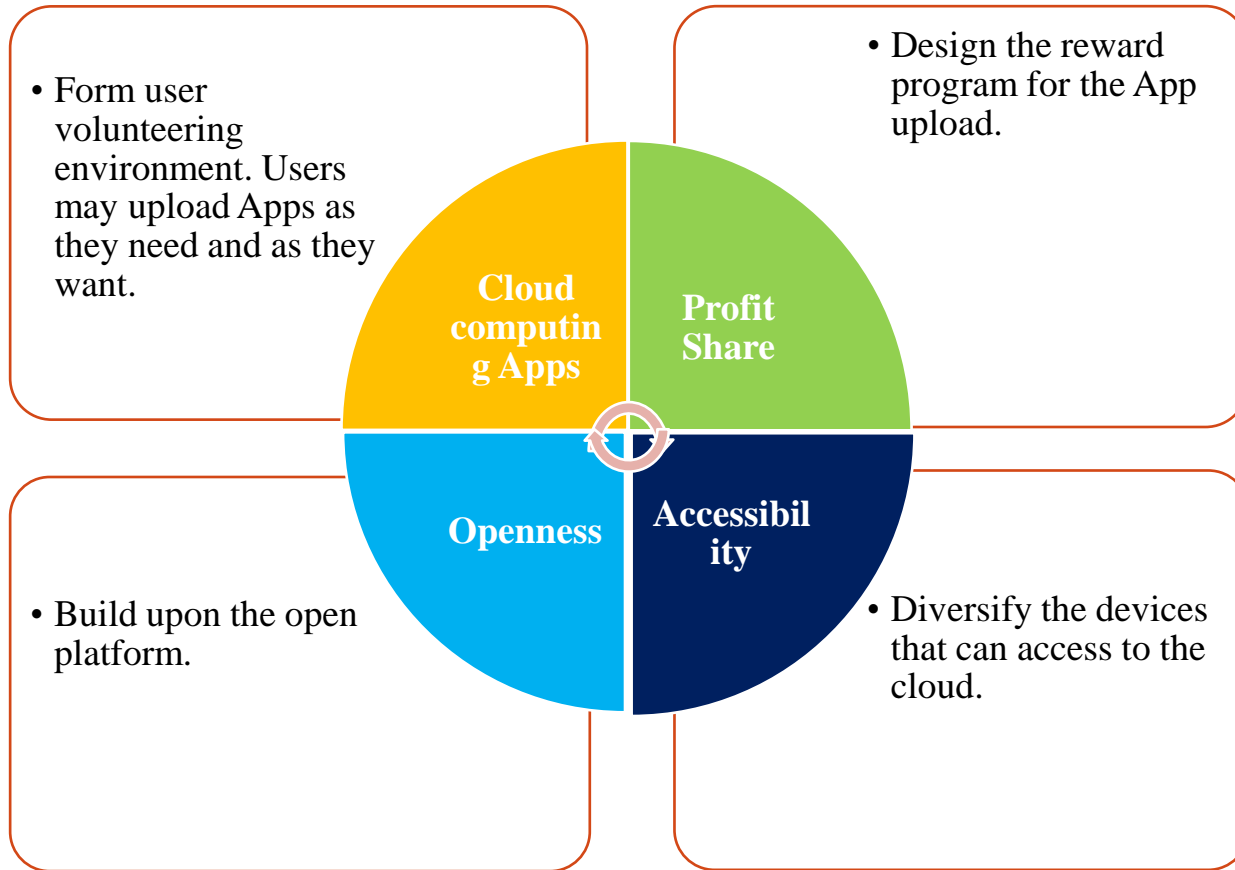
# 5. Action Plans



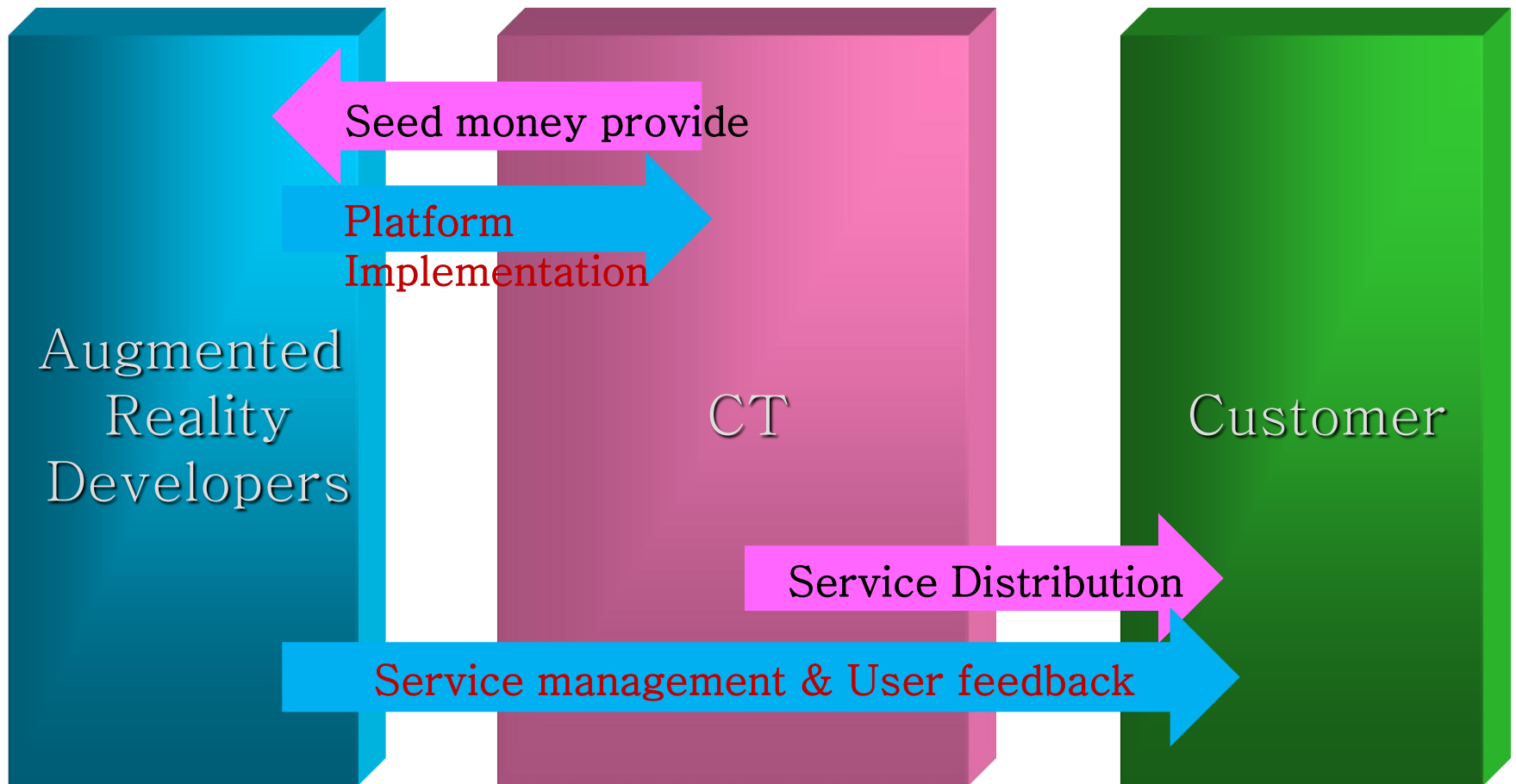
# Action Plan



# Cloud computing



# Augmented Reality



# Open Innovation

## Open innovation examples

**IBM**

*Donated 500+ patents and \$1B for Linux*

**P&G**

*52% **products** are based on external ideas  
/ 9,000 researchers and 1.5 million outsiders*

**Nokia**

*More than 1 million developers*

**Nintendo**

*Wii system development through closer  
customer relations*

# Open Innovation

## Open innovation examples

*Apple*

*iPhone Appstore (150,000 applications)*

*Google*

*Android OS development*

*SAP*

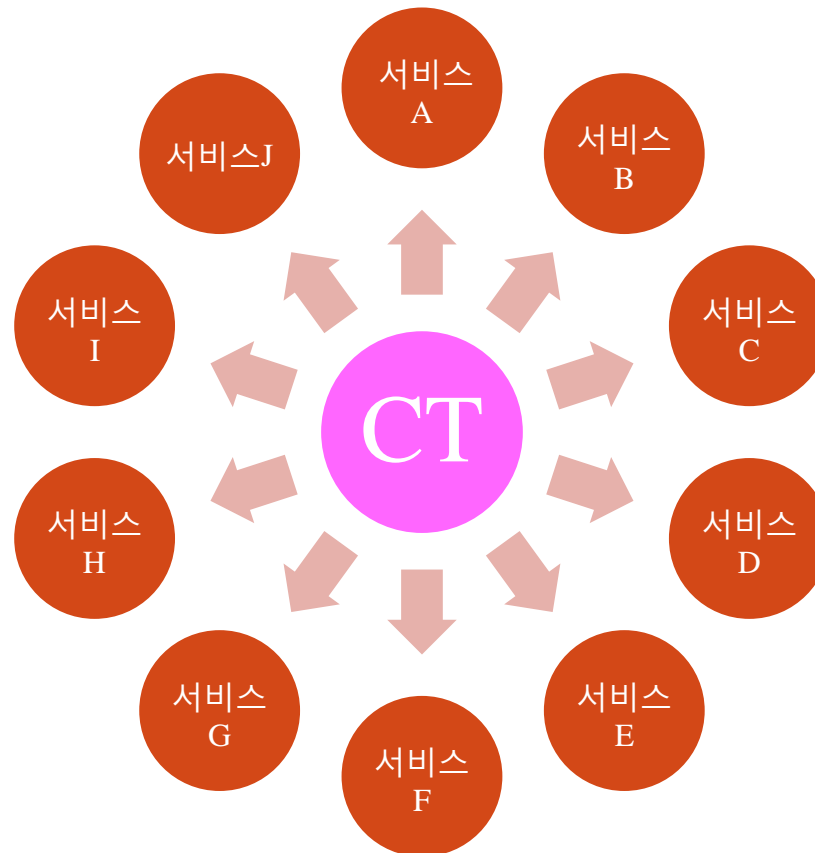
*Developers Network*

*Amazon*

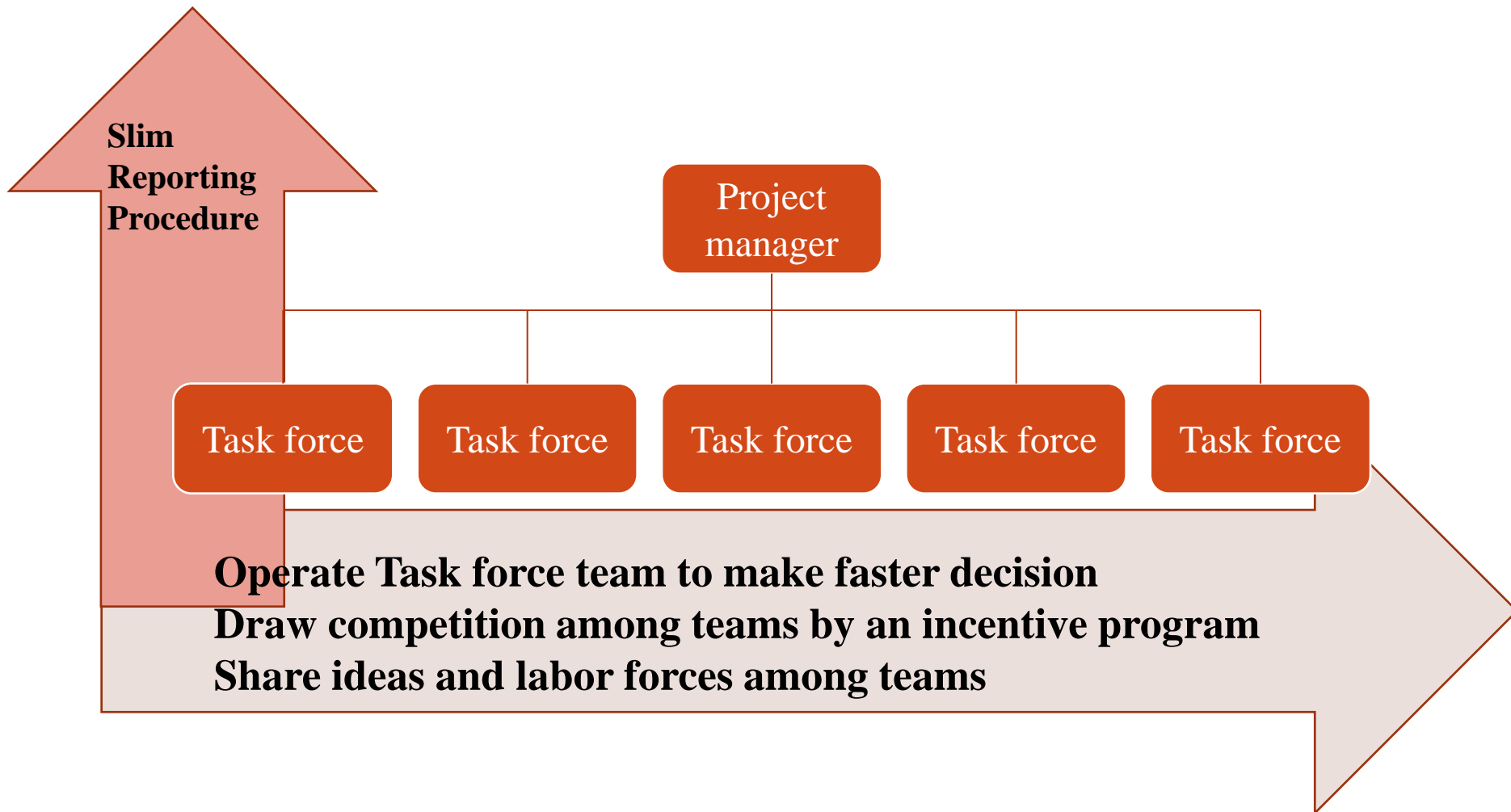
*Cloud computing initiative*

# M&A

- **Trigger Network effects with strategic M&A**
- **Diversify the business model**
- **Increase the service quality by purchasing the professional firms in the relevant domain.**



# Efficient Structure



# Q&A

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**Thank you.**