Regulatory Frameworks in ICT Sector
Communications Regulatory Commission Mongolia

CRC of Mongolia and NCC of Taiwan Seminar
Ulaanbaatar, Mongolia
2013-08-15

Content

- *Brief introduction of Mongolian Country*
- *Introduction of CRC Mongolia*
- *Statistic information of Mongolian ICT sector*
- *On going projects and works*
- *Future Regulatory frameworks*

Brief introduction of Mongolian Country

Demographics

Population: 2,754,685

Density: 1.76 per km^2

Capital: Ulaanbaatar (45%)

No. of provice: 21 aimag

Language : Mongolian

Ethnic groups: 95.35 Mongol
3.86 Kazakh
0.8 others

Religion: Buddhism 53%,
Muslim 3%,
Shamanism 3%,
Christian 2%

Geography and climate

Territory: 1,564,115.75 km^2 (19th)

Climate: 4 season, extreme continental winter ave. -23,
summer ave. +25 sunshine>250 days/year

Highest peak: 4,267 m above the sea.

Government and politics

Parliamentary republic:

President elected 4 years

Government : 11 ministry
48 agencies

GDP total : $6.125 billion

Economy: Agriculture, mining
Mineral resources: copper, coal, molybdenum, tin, tungsten, gold

History brief

Mongol empire: 1206-1368

Post imperial: 1368-1691

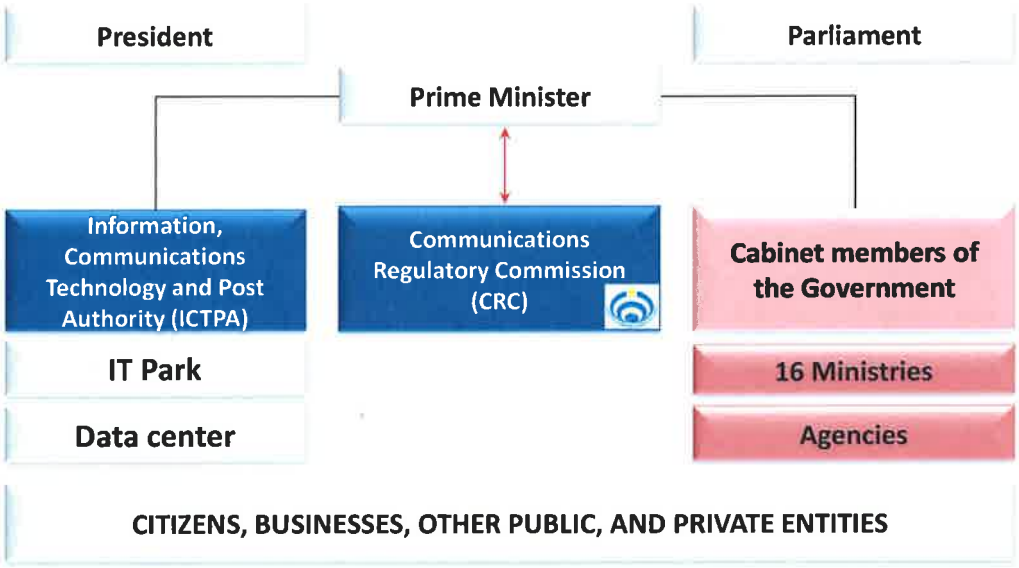
Under the Qing Dynasty: 1691-1911

Independence: Dec. 29, 1911

Communist Mongolia: 1921-1990

Democratic Mongolia: 1990

ICT Sector organizational structure



- ICT, Post and Broadcasting sectors are overseen by ICTPA, regulatory function by CRC
  - Both institutions report to the Prime Minister
    - No cabinet-level Ministry responsible for policy-making

CRC Establishment

Independent Mongolian Government Regulatory Authority in ICT, postal sector (The Communications Act of Mongolia, 2001)

Employees-58
11% Ph.D
53 % Master degree

Organizational Chart, 2013

Chairman
Commissions /6/

- Legal , Information and Administration Department
- Radio Frequency Regulation & Monitoring
- Regulatory Department
- Market and Tariff Regulation Department
- Postal Regulation Department

Mission and main responsibility

Mission

To advance the development of ICT sector in Mongolia to make it an efficient, competitive and less intervened communications sector which meets the need of the Mongolian people.

Main responsibility

The CRC is responsible for regulating and supervising a wide range of subjects including competition issues, the provision of networks and services for fixed line and wireless telecommunications, television, radio, and satellite transmission, spectrum management, postal services and the Internet to ensure that the public interest is well-served.

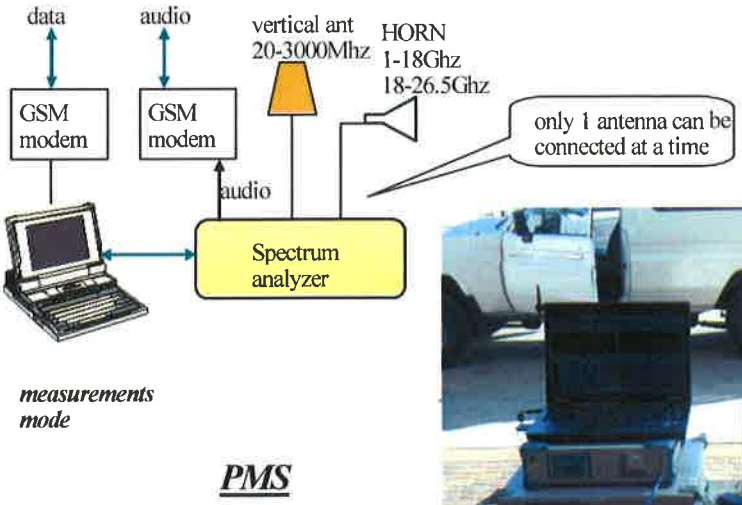
The CRC's jurisdiction covers all regions of Mongolia.

Radio frequency monitoring center of CRC

(Location: Songino Khairhan district, Ulaanbaatar)

Radio frequency monitoring center of CRC

(Portable monitoring)



measurements mode

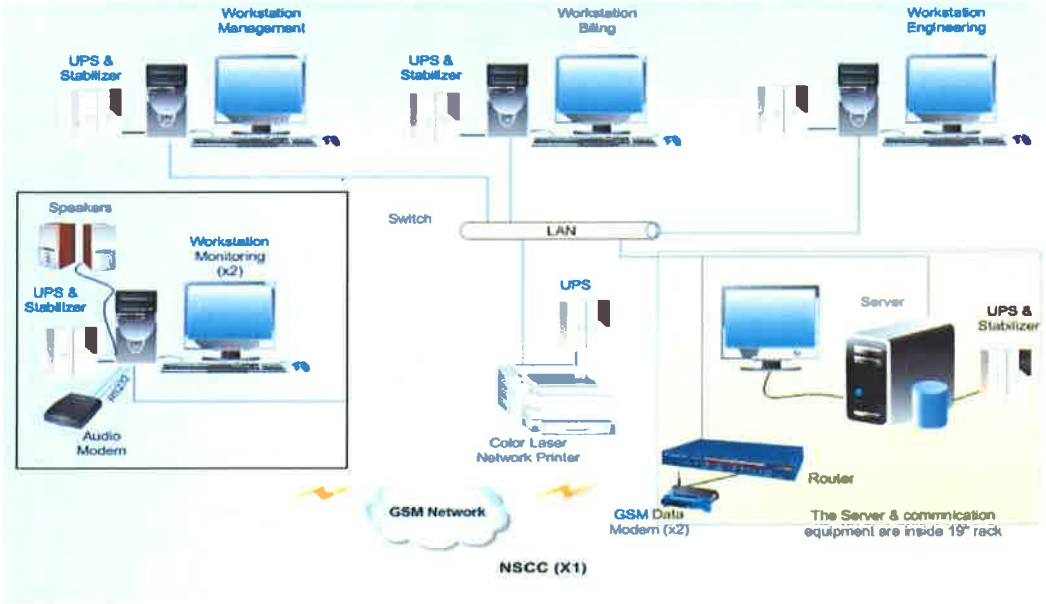
PMS

Radio frequency monitoring center of CRC

(Mobile monitoring)

Radio frequency monitoring center of CRC

(World Bank project)



International Cooperation

The CRC represents a regulatory authority of Mongolia in the international level namely in the ITU, UPU, APT, APPU etc.

(ITPTA: ITU Member-1964, CRC: ITU-D Sector member-2008)

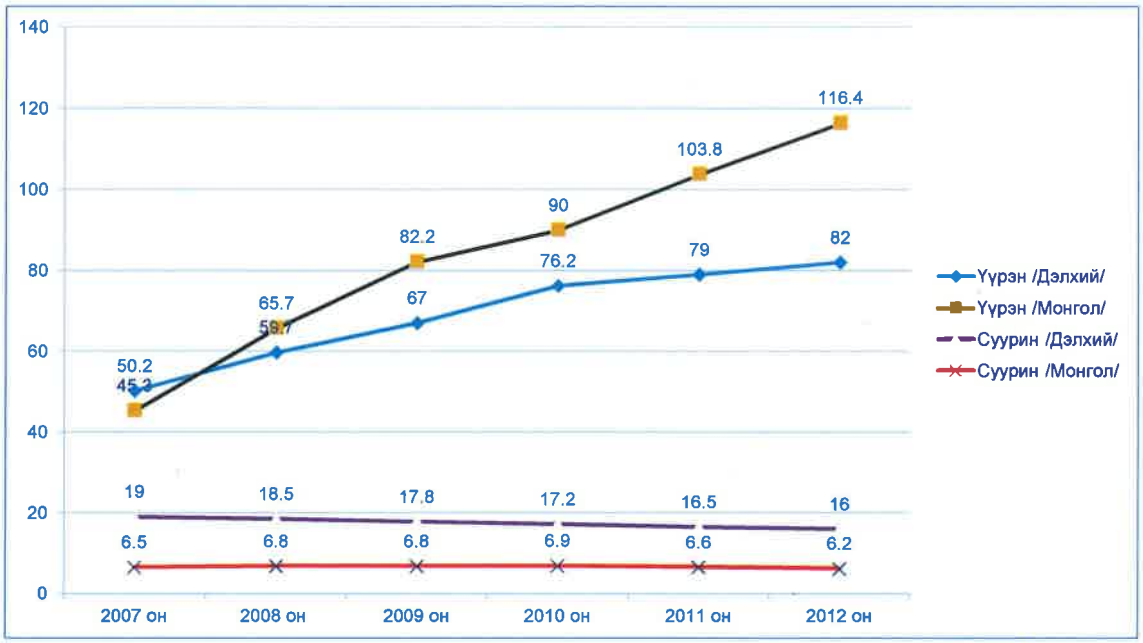
Regulatory organization: KCC (Korea), CRMO (Korea), OFCA (HK, China), NCC (Taiwan), TUV (Germany), IDA (Singapore), MCMC (Malaysia)

ASIAN-PACIFIC POSTAL UNION BUREAU

Asia-Pacific Economic Cooperation

Statistic information Mongolian ICT sector

(Mobile and telephone density per 100 person: World and Mongolia)

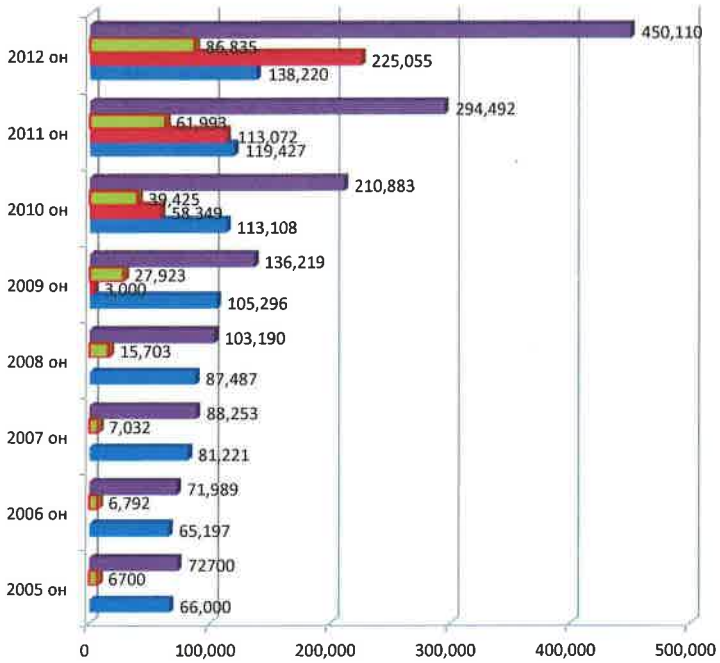


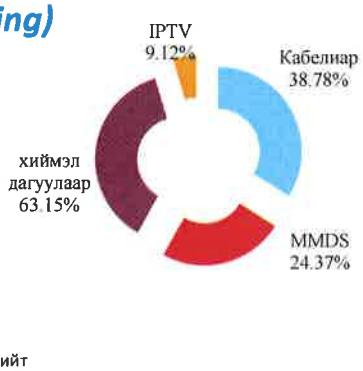
Statistic information Mongolian ICT sector

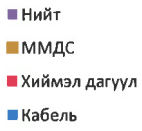
(Internet subscribers)

Statistic information Mongolian ICT sector

(Radio and TV Broadcasting)







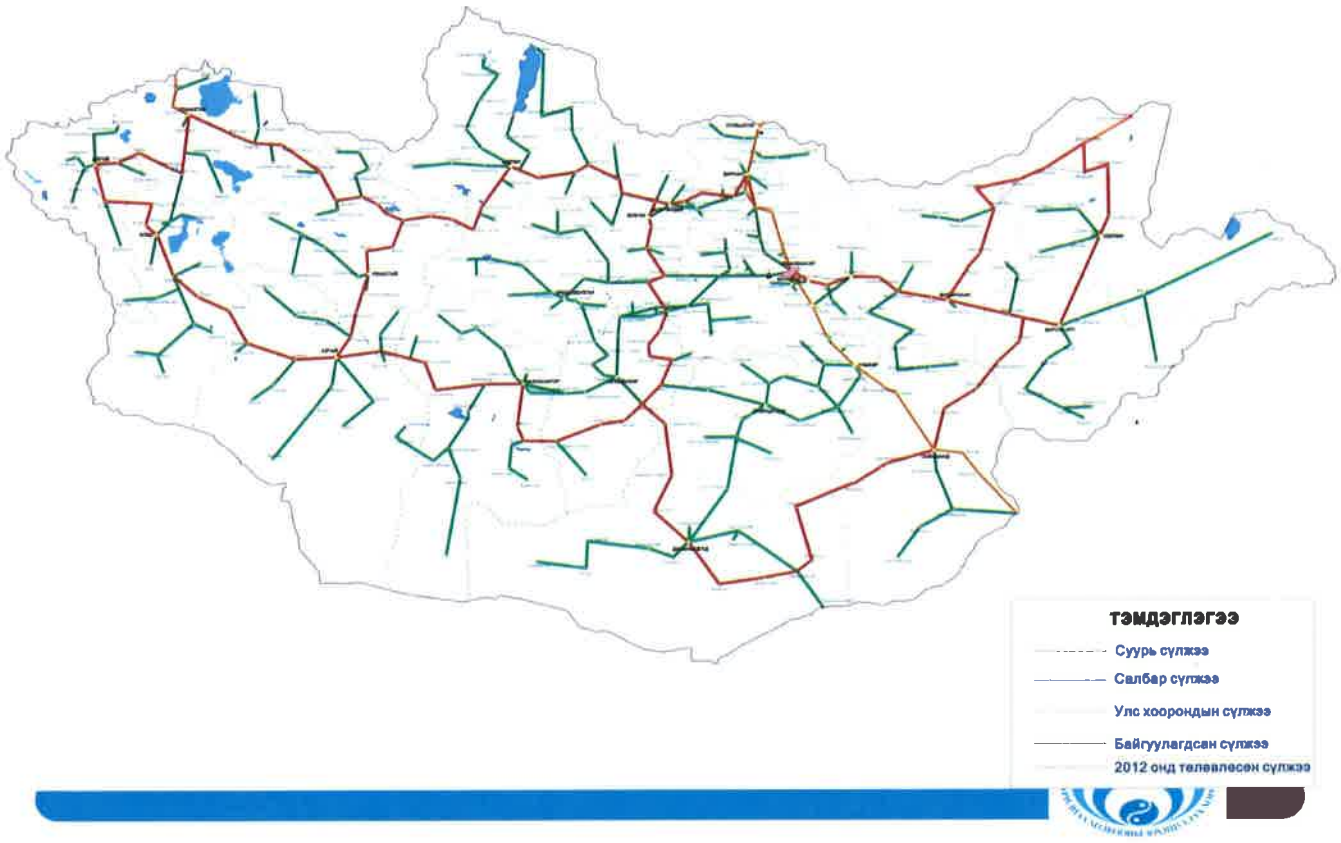
2010----------2014

1967 - 1981

2010 - 2014

1991 Азиасат-1 1ТВ суваг	1996 Азиасат-2 1ТВ суваг	1998 Интелсат-704 1ТВ суваг	2004 Интелсат-906 4ТВ суваг	2008 Апстар-6 18ТВ суваг

МОНГОЛ УЛСЫН ХАРИЛЦАА ХОЛБООНЫ ҮНДСЭН (Суурь, Салбар, Улс хоорондын)
СҮЛЖЭЭНИЙ НЭГДСЭН ТӨЛӨВЛӨЛТ 2012-2021



On going program and projects

- Government National Programs: Broadband, E-Governance and etc.,
- Mongolian national transmission backbone network master plan and policy
- Information and commination network terms and condition (updating)
- Preparing next years Metro layer network plan
- Infrastructure sharing and unbundling rule (updating)
- National frequency monitoring project: National Automatic Spectrum Management
- To Implement the equipment Type approval
- Digital migration on the Radio and Television broadcasting technology

Future Regulatory Frameworks

Licensing:

- Implementation of e-CRC project
- Introduction of unified licensing regime
- Amendment of license regulation and conditions in new converged environment (TV and radio, content, domain name and etc.,)

New Technology:

- Support of IPTV and triple service in province centers
- Introduction of LTE, IP based technology, mobile TV and new applications
- Others

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Thank you for your attention

T.Naranmandakh, Ph.D.
Director-General of Dept.,
Communications Regulatory Commission of Mongolia (CRC)
Metro Business Center, 12-Floor
Sukhbaatar District, Sukhbaatar Str-13
Ulaanbaatar 14201
MONGOLIA
Tel: 976-11-363999, Fax: 976-11-327720
e-mail: naran@crc.gov.mn
Web: www.crc.gov.mn

NATIONAL COMMUNICATIONS COMMISSION

Aug , 2013

國家通訊傳播委員會
NATIONAL COMMUNICATIONS COMMISSION

Taiwan Profile

Area : 36,200 sq km
(13,970 sq miles)

Population : 23.31 M

Households: 8.21M

2012 GDP Per Capita : USD 20,386

Outline

- NCC : Introduction
  - History
  - Operation
  - Soliciting Public Opinion
- Market Status
- Telecom & Broadcasting Services
  - Key Issues
- Conclusion

History

Directorate General of Telecom, MOTC + Dept. of Broadcasting, GIO = NCC

Fundamental Communications Act

Operation

- The Commission consists of seven commissioners, including a Chairperson and Vice Chairperson
- Commission Meetings
  - ✓Meeting is held weekly
  - ✓Agenda announced on website several days prior
  - ✓Meeting adopts a collegiate system
  - ✓Press conference held after each meeting

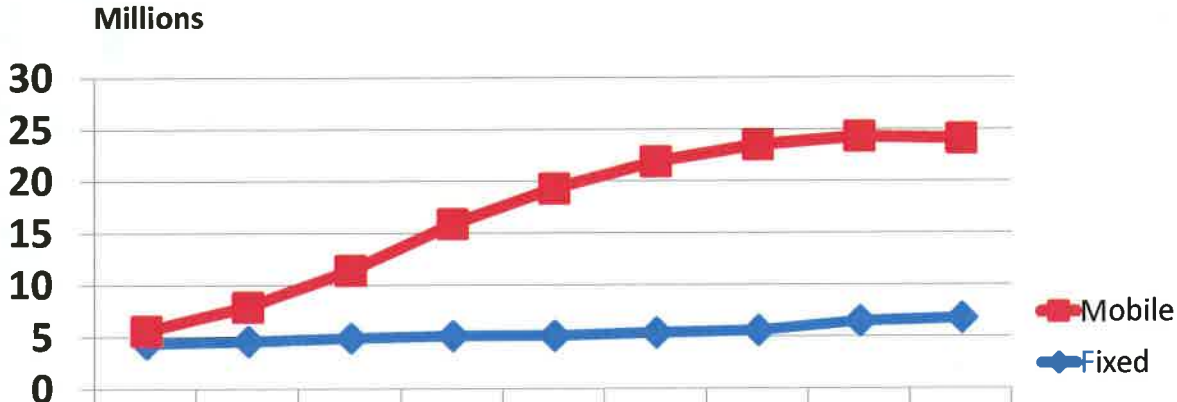
Soliciting Public Opinion

The Commission holds public hearings prior to making decisions on important issues

Market Status-Telecom

Type	Category	No. of Licenses	No. of Operators
I	Fixed Network	79	79
	Mobile Network	20	
	Satellite Communications	4	
II	Voice Simple Resale	62	453
	Internet Telephony	62	
	ISP	211	
	Wholesale Resale	169	
	Others	284	

Mobile and Fixed Line Broadband Subscription



	2005	2006	2007	2008	2009	2010	2011	2012	2013 Apr.
Mobile	1.2	3.3	6.5	10.8	14.2	16.5	17.9	17.8	17.3
Fixed	4.3	4.5	4.8	5	5	5.3	5.5	6.4	6.7

Market Status-Broadcasting

TV Set Penetration	99.6% of households Avg.2.2 TV set/household
CATV Penetration	60.7% of households
Digital Terrestrial TV Coverage	96.77%

- CATV : mainstream
- Subscribers of five MSOs account for 73%

Market Status-Broadcasting

Classified business	Categories		No of Licenses	Sub total	Total
Satellite Broadcasting	Direct Satellite Broadcasting Service Operator		8	276	514
	Satellite Broadcasting Program Supplier	Domestic Channels	157		
		Foreign Channels	111		
Terrestrial	TV		5	5	
	Radio	Integrated Radio	9	171	
		AM	19		
		FM	143		
Cable	System Operators		59	62	
	Broadcasting Operators		3		

Key Issues

- **Digital Convergence Policy Initiative (DCPI), launched in 2010**
  - Preparation of a high-speed broadband network
  - Promotion of telecommunications convergence services
  - Acceleration of digital TV switchover
  - Developing innovative video/new media services
  - Upgrading of communications industry
  - Enriching TV program content
  - Harmonization of the regulations for convergence era

Key Issues

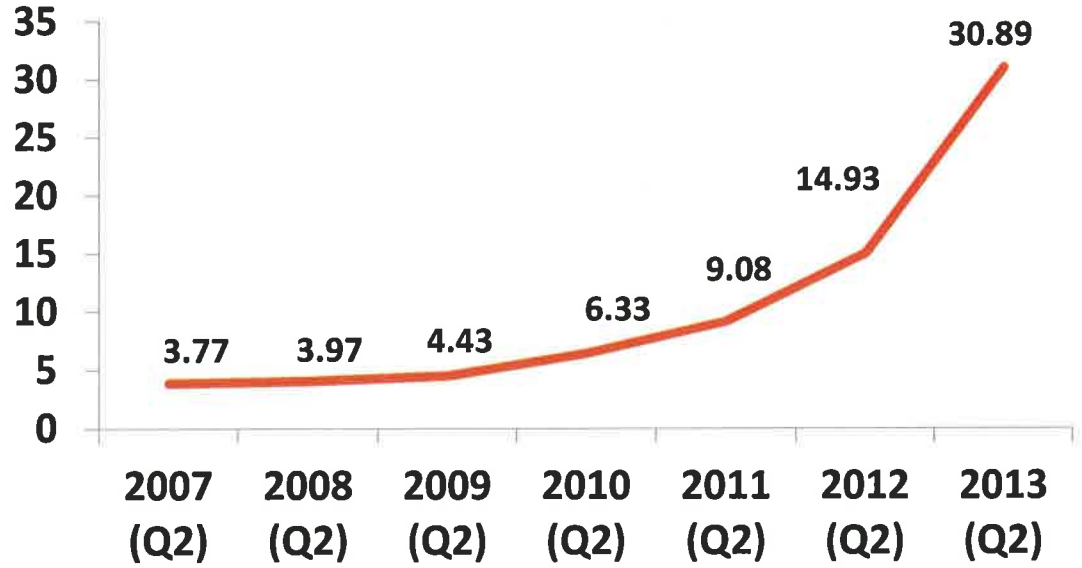
- **4G Licensing in 2013**
  - A total 270MHz of bandwidth will be auctioned in the 700MHz, 900MHz, and 1800MHz bands
  - Technology neutrality
  - Spectrum Caps to promote competition
  - Spectrum Usage Right Transfer Allowed
  - High Speed Base Stations Deployment Required

Key Issues

- **Convergent Communications Act**
  - Integration of the Telecommunications Act & three Broadcasting Acts
  - From vertical to horizontal regulation
  - Fair competition encouraged
  - Creativity and innovation cultivated

Key Issues

- **CATV Digitization**
  - Digital Set Top Box Penetration increased.



Key Issues

- **Enhancing Competition**
  - Mobile termination fee regulated to provide customers high quality service at reasonable prices
  - Cross industry competition encouraged
    - MOD subscription 120M achieved (2013)
    - Broadband competition promoted by CATV digitization

Key Issues

- **Terrestrial Switchover**
  - Completed in June 2012
  - Maximum usage of Spectrum expected
  - HD program production encouraged
  - Emerging service & industry cultivated

Key Issues

- **Broadband Speed Testing**
  - Disclosure of information for the public
    - Fixed: Download 2.07Mbps(average)
    - Mobile: Download 1.48Mbps(average)

    - Test Period: August 2012 –November 2012

Key Issues

- **Universal Service**
  - Broadband
    - Launched in 2007: 2Mbps service in remote areas
    - Upgraded to 12 Mbps from 2012
  - CATV
    - 99.87% homes passed achieved in 2011
    - Triple Play
      - Data, voice & video

Conclusion

- **Coordination between**

telecommunication services providers, developers of technology, manufacturers, international standards bodies, and government regulators

brings benefits to people all over the world

Thank You for Your Attention

www.ncc.gov.tw

Universal Services in Taiwan

Presented by
Mr. Ching-Heng Lin
National Communications Commission
Taiwan, ROC
August 15, 2013

Outline

- **Needs, Vision and Challenges**
  - **Profile: Taiwan**
  - **Policy and initiatives**
  - **Market status**
- **Universal Service Policy and Implementation**
  - **Policy, funding, and mechanism**
  - **Broadband to villages and tribes: challenges and solutions**
  - **100% coverage and benefits**
- **Conclusion**

Taiwan's Profile

Item	Figure
Area	36,200 sq km (13,970 sq miles)
Population	23.31 M
Households	8.21M
2013 GDP Per Capita(nominal)	US$20,386
Major Broadband Service speed rate	＞12 Mbps

Taiwan World Rankings

2 - ICT Manufacturing Industry

■*2008 survey on global ICT industry competitiveness, published by Economist Intelligence Unit*

4 - Broadband Infrastructure and Usage

■*2010 global user penetration rates, released by FTTH Council*

5 - Household Broadband Penetration: 81%

■*Strategy Analytic June 2009*

7 - Digital Opportunity Index, DOI

■*World Information Society Report 2007, published by ITU*

National InfoCom Development Plan

Goals

- Create a high-tech island with advanced broadband service
- Construct a sound, convenient, cultural, and healthy ubiquitous network society
- Enhance national competitiveness

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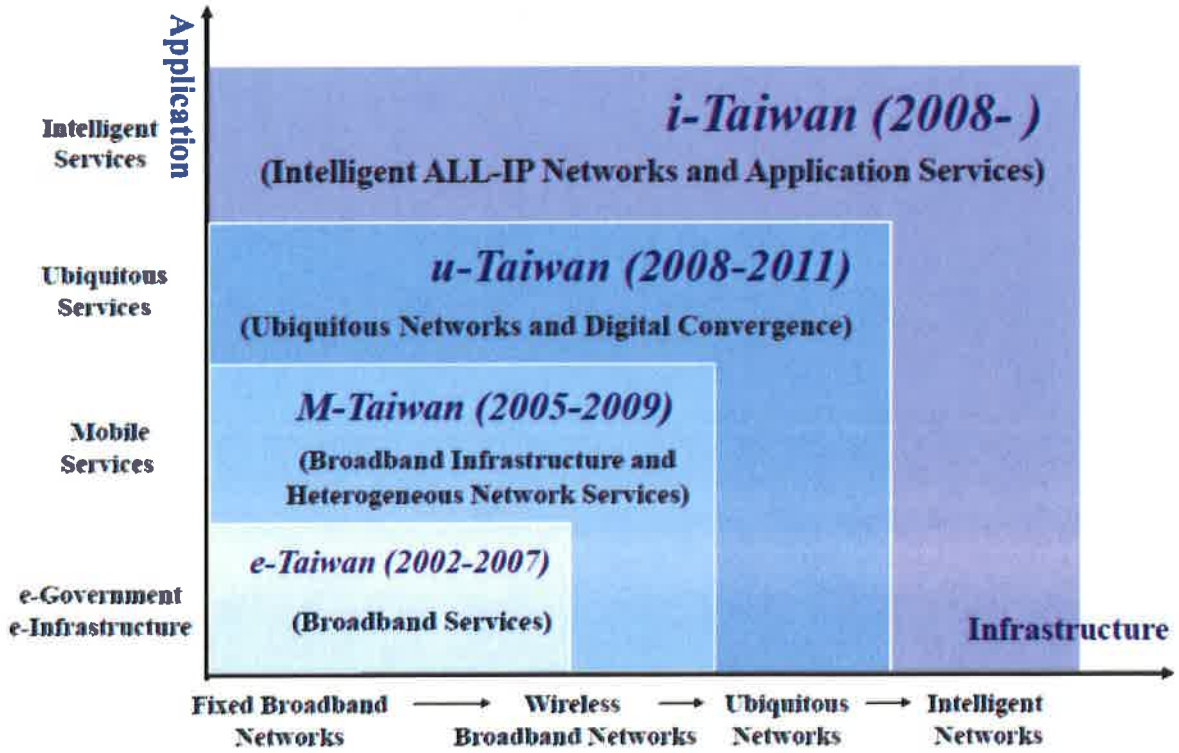
Evolution of NIDP



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Key Elements of i-Taiwan Project

W	*Wireless & Broadband Convergence*
I	*Cultural & Creative Industry*
S	*Superior e-Government*
D	*Demand-driven Applications*
O	*Equal Digital Opportunity*
M	*Manpower Cultivation*

Intelligent Taiwan

2012 funding: USD1.6B

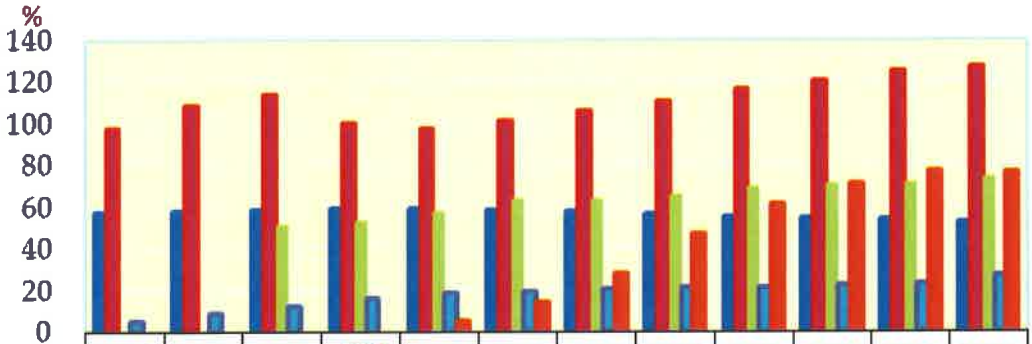
Digital Convergence Initiative Goals

Goals of the Executive Yuan's "Digital Convergence Policy Initiative"		
The market of digital TV service	Market profile (2012)	Goal indicators (2015)
Digital cable TV	4.99 million subscribers; 1,049,321with set-top boxes	Digital penetration ratio: 75%
Digital terrestrial TV	96.77% coverage	Coverage in 2012 >90% Subsidy to low-income households started in 2010.
Digital HD TV pilot broadcasting	Pilot broadcasting began Public TV Service on 15 May 2008.	Nationwide coverage
IPTV	1,194,000 subscribers	Penetration ratio: 50%
FTTx account no.	2.6 million subscribers	6 million households (Including fixed –line and cable TV providing fiber optic network)
Cable Modem	1.08million subscribers	
3G data card and WBA	1,230,000+13,700=1,367,000	2 million

Source: "The study on the market for digital TV service and future needs in Taiwan" conducted by Taiwan Communications Society and data complied by NCC

Market Status in Taiwan

Market Penetration



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Local telephone	57.3	58.2	59.1	59.6	59.8	58.9	57.9	56.8	55.5	54.8	54.6	53.2
Mobile phone	97.2	108.3	114.1	100.3	97.4	101.6	105.8	110.3	116.6	120.4	124.8	126.9
Internet users			51.9	53.8	58.0	63.8	64.4	65.8	69.8	71.5	72.0	74.5
Fixed Broadband	5.1	9.3	12.4	16.5	19.1	19.7	20.9	21.8	21.6	22.9	23.8	27.7
Mobile Broadband					5.2	14.3	28.4	46.8	61.5	71.2	76.9	76.4

Note:

1. Penetration ratio of Internet users is taken from "Investigation on applications and needs in domestic broadband network in Taiwan" conducted by Institute for Information Industry
2. "Fixed broadband" includes ADSL, FTTx, Cable Modem, Leased Line, and PWLAN users.
3. "Mobile broadband" includes 3G and WBA users
4. The number of WBA users is added into "penetration ratio of mobile phone subscribers" in 2010.

Source : NCC

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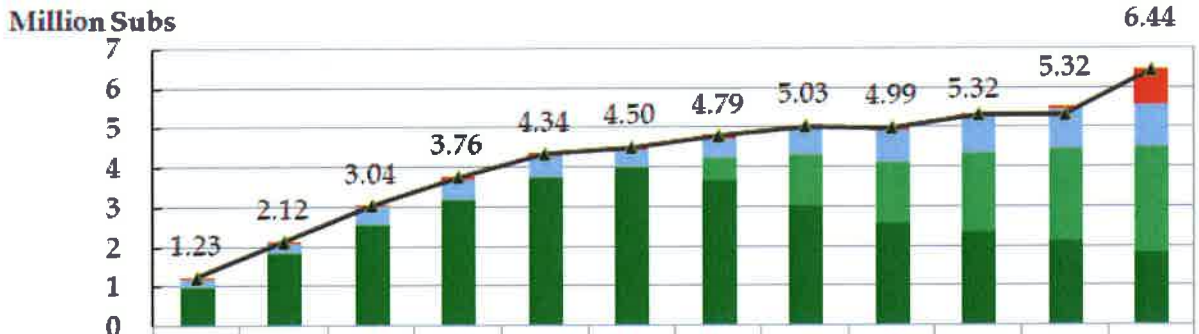
Subscribers of Fixed Broadband



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
others	0.03	0.02	0.04	0.06	0.06	0.08	0.08	0.09	0.07	0.07	0.09	0.91
Cable Modem	0.23	0.28	0.45	0.53	0.54	0.42	0.50	0.65	0.81	0.93	1.01	1.08
FTTx							0.55	1.26	1.53	1.96	2.30	2.63
ADSL	0.97	1.82	2.55	3.17	3.74	4.00	3.66	3.03	2.58	2.36	2.12	1.82
total	1.23	2.12	3.04	3.76	4.34	4.50	4.79	5.03	4.99	5.32	5.32	6.44

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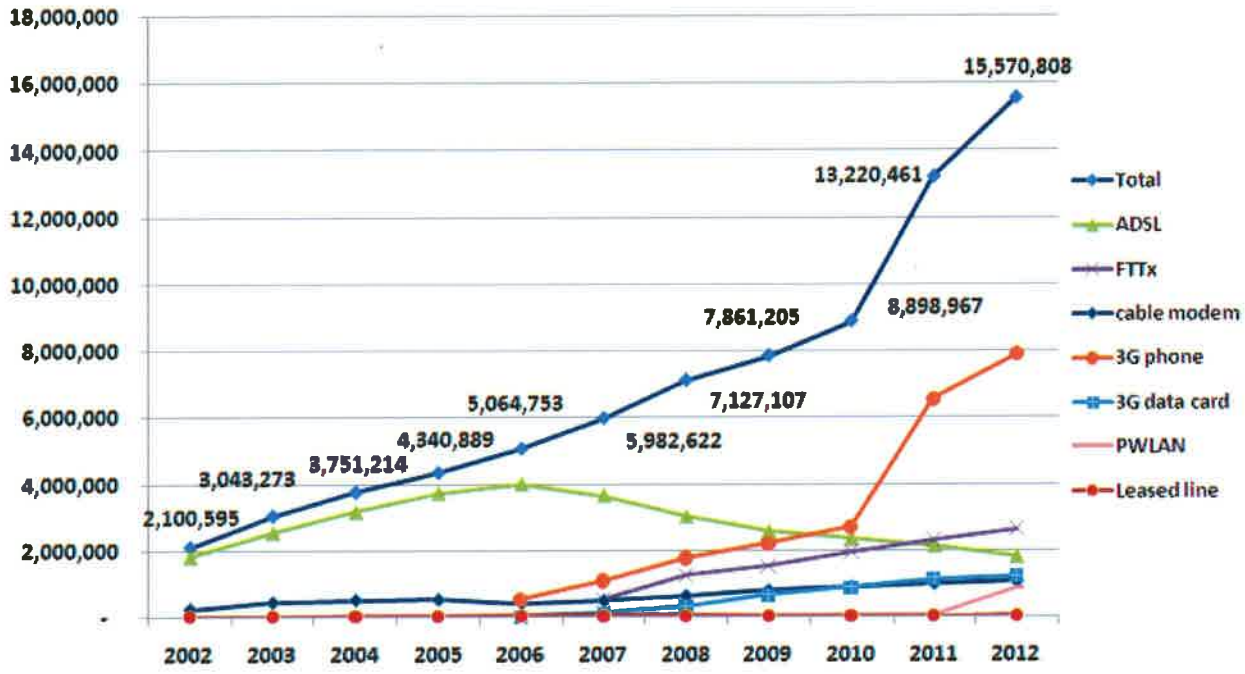
Trend of Broadband Access



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Overview of Broadband Universal Service

Objective

People's right to access telecom services in remote areas: voice and data

Legislation

Telecommunications Act, which governs
Regulations on Telecommunications Universal Service

Budget

Universal Service Fund

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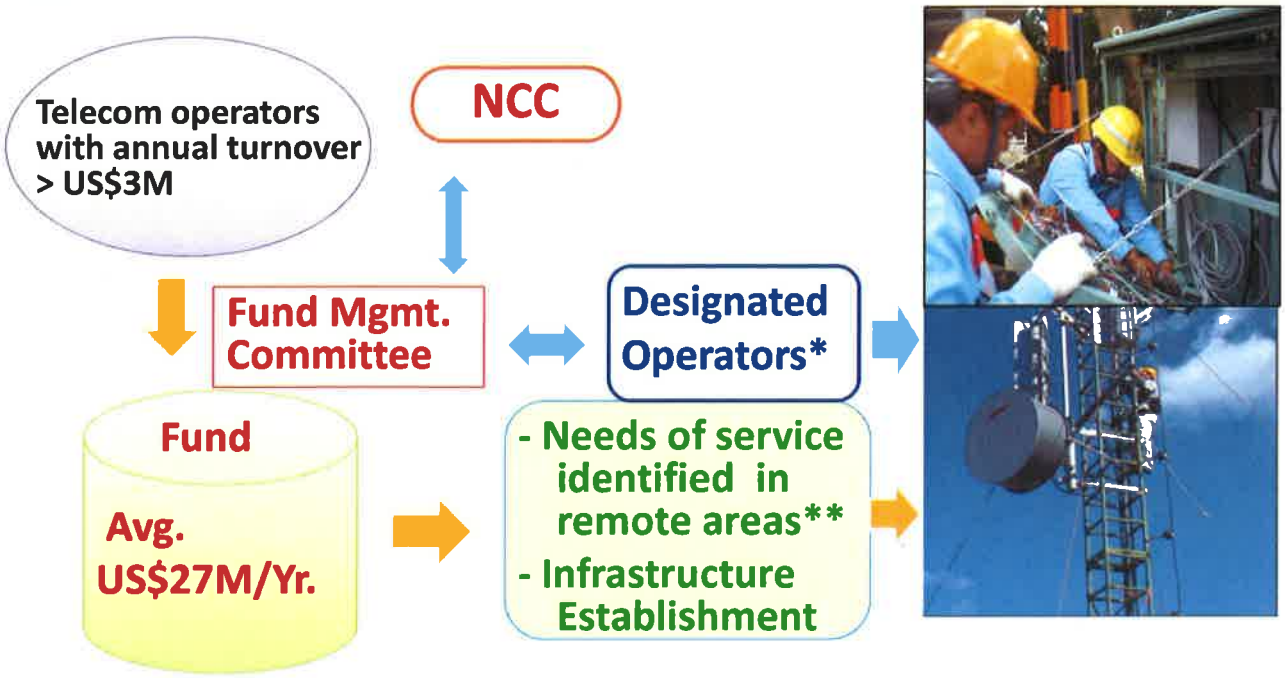
Universal Service Fund

- For Universal Voice and Broadband Data Services
  - A virtual fund dedicated to universal telecom services
  - Deficit of universal service providers shared in proportion by telecom operators with an annual turnover > USD3M
  - Avg. USD27M
  - implemented since 2002

Universal Service Fund

- For CATV
  - 1% of system operator's annual revenue
  - 40% to local governments, 30% to PTS, 30% to NCC
  - Avg. USD10M
  - 15% of the fund (approx. USD1.28 M per year) subsidizes CATV network in remote areas
  - maximum subsidy: 50% of the construction cost
  - implemented since 2003
  - no services villages: 458 down to 10

Telecom Universal Service Fund Management



* 22 telecom operators contributed to the fund in 2011

** About 730 remote tribes in Taiwan

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Broadband for Villages and Tribes

- Legislation
  - Extends the 2007 policy "Broadband for Villages" to "Broadband for Tribes" in 2008
- Identification of needs
  - Identified the requirements of universal broadband service in 46 villages and 174 tribes

Wireless Solutions

- NCC Encourages Operators to
  - Use wireless microwave links
  - Use 2.4G or 5.7G ISM BAND spread spectrum microwave
  - Frequency usage fees deducted by 90%

- M-Taiwan Experimental Network Project Promotes
  - broadband network services by the application of Wi-Fi /WiMAX

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Deployment Challenges

- Challenges in Remote Areas
  - Mountainous
  - Landslides, earthquakes, typhoons
  - Land rental
  - EMW concerns

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100% Broadband Coverage

- Projects 1
  - *Broadband for Villages(2007) / Broadband for Tribes (2008~)*

Year	2007	2008	2009	2010	2011	2012
Budget	US$ 2.76M	US$ 2.22M	US$ 2.35M	US$ 0.44M	US$ 0.23M	US$ 0.79M
Length of Fiber Deployment	157.2 KM	122.1 KM	148.8 KM	26.18 KM	13.6 KM	74.49 KM
No. of Villages /Tribes	46 Villages	50 Tribes	55 Tribes	11 Tribes	24 Tribes	34 Tribes
Speed			>2Mbps			>12Mbps
Coverage	100%	85%	91%		100%	

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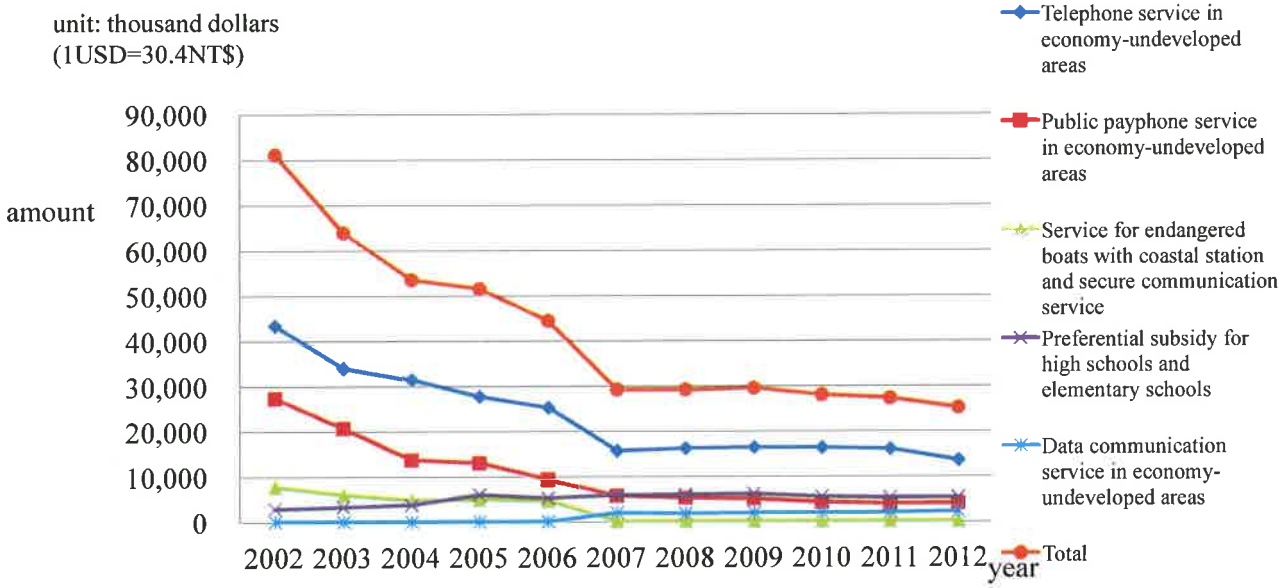
Promote Broadband Speed for Villages

- Projects 2
  - *Planning to Promote Speed for Villages* >12Mbps*(2013~2015)*
  - *Future Planning to Promote Speed for* Tribes >12Mbps*(2016~)*
  - Coverage

Year	2012	2013	2014	2015	2016~
No. of Villages /Tribes	521 Villages	177 Villages	Villages	Villages	Tribes
Speed			>12Mbps		
Coverage	70.18%	75% Ongoing	85%	95%	

Annual Subsidy of Universal Services Funds



Benefits: Digital Divide Reduction : Multiplay

- Multiple Applications
- Shortens Distance
- Diversity in Communications
- Increases Competition

Reduction of the Digital Divide: Education

Current Status – Broadband for Every Villages & Tribes：

- Enhanced learning skills
- Improves elderly learning

Student of Lijia Elementary School accessing the Internet with broadband

Sandimen Elementary School
Students accessing the Internet with broadband

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Administrative Efficiency in Tribes

- E-government Development
- Effectiveness in Leveraging Government Resources

Distant Healthcare

- improve the Internet access quality for the mobile medical service
- Wimax system in Hualien County resolving the last-mile issue in remote areas

Economic Boost: Sightseeing & Online Sales of Local Products

- Ecological Tourism
- Online Sales
- Job Opportunities


Thanks for your attention

國家通訊傳播委員會
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4G Auction in Taiwan

Introduction

- Smart phones and tablets are now ubiquitous: we are staying connected wherever, whenever.
- Taiwan as a global ICT innovator both in the manufacturing supply chain and leading brands.
- **The role of NCC: Identify the challenges and opportunities when designing the next generation mobile broadband policy.**

Taiwan's Mobile Telecom Market

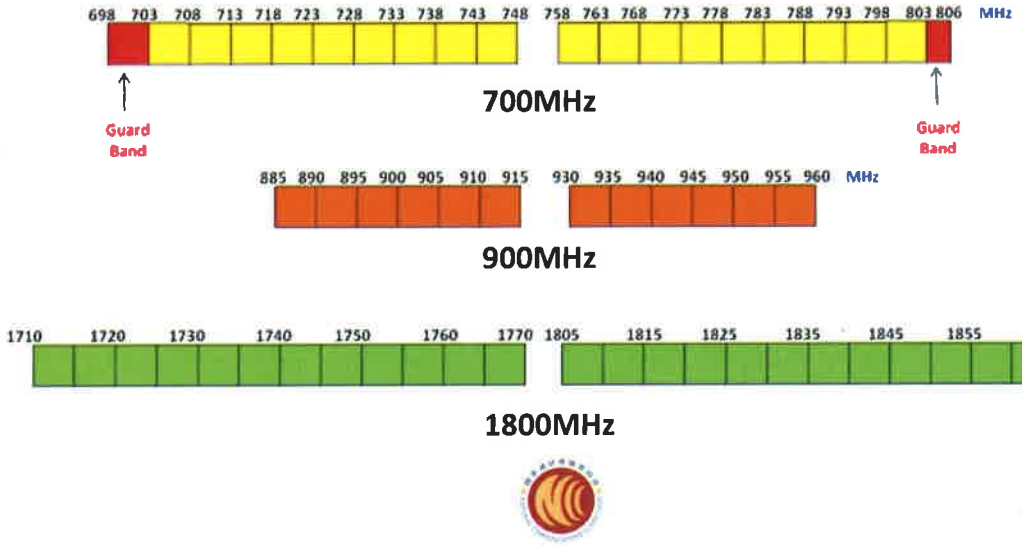
- **Three 2G Operators:**
  - Revenue: 0.9 billion USD (2012)
  - No. of users: 5.4 million (2013.5)
  - Coverage: > 99%
- **Five 3G Operators:**
  - Revenue: 6.4 billion USD (2012)
  - No. of users: 23.4 million (2013.5)
  - Coverage: > 90%

Mobile Telecommunications Licensing

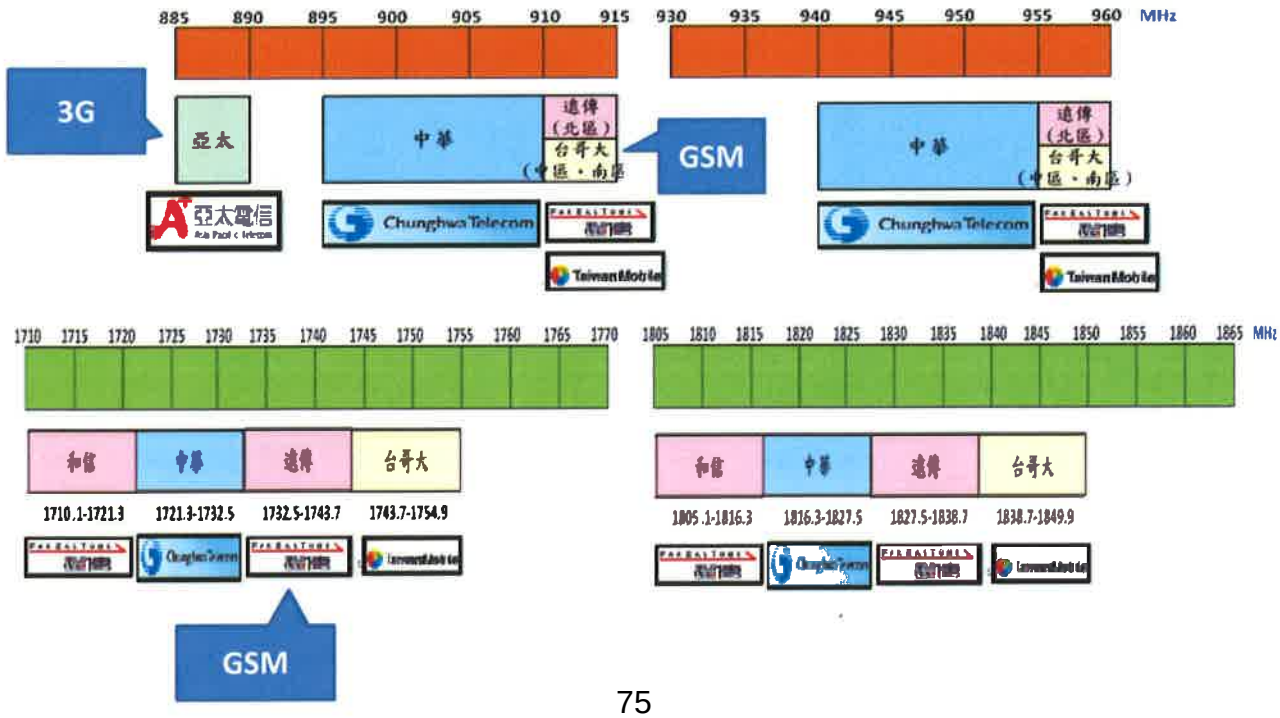
- Former Directorate General of Telecommunications, Ministry of Transportation and Communications:
  - 1997: Mobile Telephone Business (GSM)
  - 2001: Third Generation Mobile Telecommunications Business (IMT-2000)
- **NCC established in 2006:**
  - 2007: Wireless Broadband Access Business (WiMAX)
  - **2013: Mobile Broadband Business**

Additional Spectrum

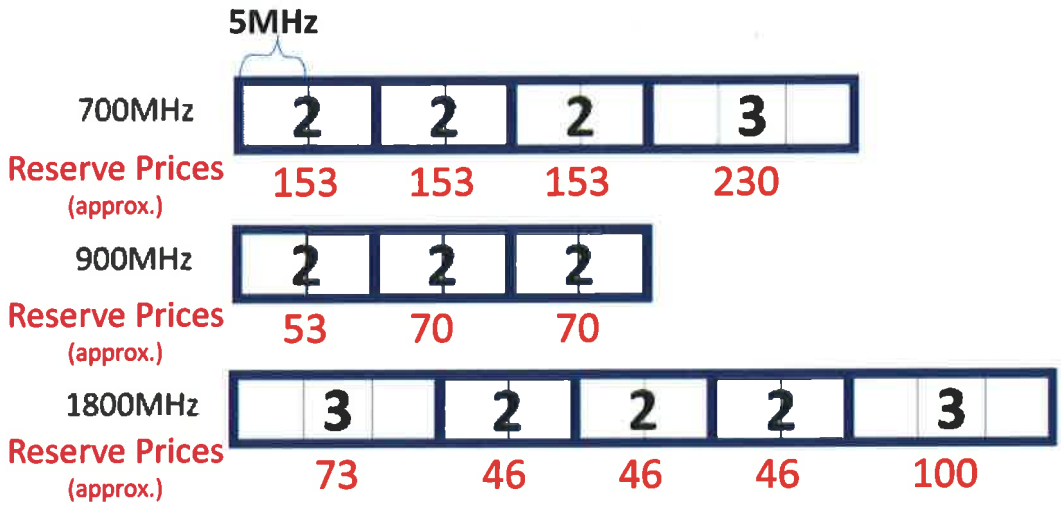
- **270MHz** of bandwidth will be auctioned in the **700MHz, 900MHz**, and **1800MHz** bands in 2013.



Refarming GSM/3G Spectrum



Reserve Prices



Unit: million US dollars

Licensing Principles

- **Statutory duties and regulatory principles set out by the Fundamental Communications Act and the Telecommunications Act:**
  - technology neutrality
  - encourage innovation in communications technologies and services
  - efficient use of spectrum
  - promote fair competition
  - protect consumers' interests

Mobile Broadband Business Licensing

- The next generation mobile broadband will accommodate **heterogeneous networks** (GSM, IMT-2000, WiMAX, LTE...):
  - the regulation encourages liberalized spectrum use by offering incentive mechanisms, including simplification measures to reduce administrative burdens.
- **The following measures have been proposed for Mobile Broadband Business (4G) licensing in Taiwan:**

Spectrum Caps

- **Spectrum caps** are necessary to promote competition.

700MHz	900MHz	sub-1GHz (700MHz+900 MHz)	1800MHz
20x2 MHz	15x2 MHz	25x2 MHz	30x2 MHz

Overall Spectrum Cap based on the number of Qualified Bidders		
≧5 bidders	=4 bidders	≦3 bidders
35x2 MHz	40x2 MHz	45x2 MHz

High-Speed Base Stations Deployment

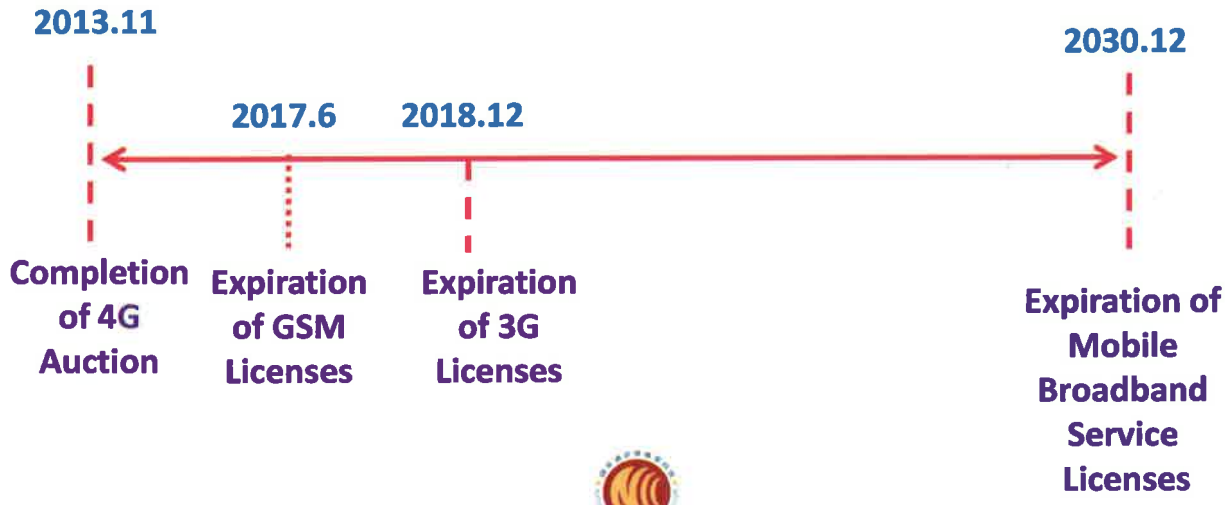
- Definition of HSBs: downlink data rate 100Mbps @ 15MHz x 2
- **At least 250 HSBs to start service.**
- **Operators are required to deploy HSBs within 5 years of system installation :**
  - 80% of all base stations should be HSBs, or at least 1000 HSBs.
  - The coverage shall achieve at least 50% of the total population.

Transfer of Spectrum Usage Rights

- Conventional practice of 'service licenses with assigned frequencies' has been relaxed with the introduction of a **spectrum usage rights transfer** mechanism. Operators can adapt quickly to changes in the market.
- Spectrum may be transferred:
  - 250 HSBs have been installed.
  - The balance of bid price has been paid off.
  - The operator must hold at least 10MHzx2.
  - Comply with the safeguard caps (1/3).

Duration of Licenses

- License expiration date: 2030.12.31



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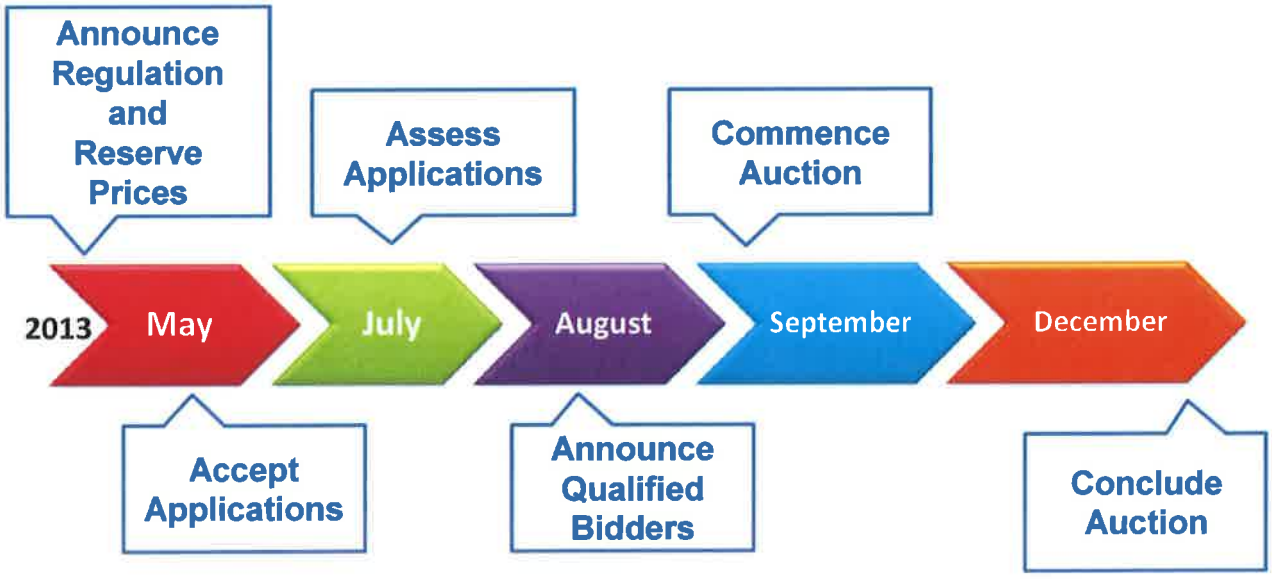
Licensing Schedule



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Thank you!

- NCC expects the auction will introduce 'high-speed mobile broadband highway', drive investments , spark local creativity and innovation, and create jobs.
- **Q&A**

國家通訊傳播委員會
NATIONAL COMMUNICATIONS COMMISSION

www.ncc.gov.tw

MobiCom

MobiCom Corporation LLC

CORPORATE PROFILE

MobiCom

Mobicom Corporation LLC is the first mobile operator in Mongolia leading by subscriber number as well as revenue share.

We provide cellular communication services to over 1.3mil customers; we also provide various telecom services including broadband, satellite and network solutions services in the market.

Date of Establishment	1996 March 18th
Shareholders	Newcom Group Sumitomo Corporation KDDI
Operating Services	Cellular phone services (GSM & 3G) over 1.3 mil subs Internet and broadband services Satellite services Network Infrastructure services Contents services (incl. Mobile commerce) Enterprise solutions
Distribution Network In Mongolia	Branch 50 Dealers 1,950 Mobile dealers 13,280 (No.1 in Mongolia)
Subsidiaries	8 Companies in Mongolia
Address:	Sector Member of ITU Sambuu street-47, Post office 38, Chingeltei district, Ulaanbaatar-15171, Mongolia

SUBSIDIARIES

MobiCom

MobiCom	Cellular phone / WLL Services Internet (IP) Wholesale, Infrastructure (leased line)
Newtel	Sales & Distribution
Mongol Content	Content Services
UlusNet	Mobile Broadband Services
MobiNet	Fixed Broadband & Network Solution Services
Most PSP	Payment Settlement Center
MobiFinance	Mobile Commerce & E-Commerce
Grapecity Mongolia	Software solution
NewFund	Financial Services for group companies

NTC NEWTEL COMPANY MobiCard & - The Service Provider Company

MongolContent

MobiNet leading internet technology

NEWFUND LLC

ulusnet lead by excellence

MOST PSP

GrapeCity Mongolia

Mobifinance

BUSINESS FIELDS

MobiCom

TELECOM

- Mobile
- WLL
- VoIP
- International call, Roaming

VALUE ADDED SERVICES & CONTENT

- Content aggregation
- Mobile Content
- Media Content

TELECOM INFRASTRUCTURE

- Local and long distance leased line
- Telecom Infrastructure sharing
- IPLC
- IP Wholesales
- Datacenter
- IP transit (planning)

BROADBAND SERVICES

- FTTB, FTTO and VPN solutions
- FTTH by GPON
- Fixed & Mobile WiMAX

ENTERPRISE SOLUTIONS

- Mobile, IDD, Roaming
- Handset & devices: Blackberry
- Broadband Products & Services
- NSL,VPN,FTTB, WiMAX
- Satellite
- Data Center
- Call Center
- Corporate Show Room
- SaaS, LAN, WAN and IP PBX

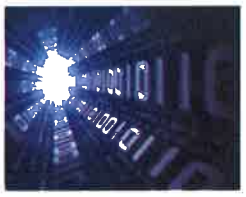
MOBILE SATELLITE SERVICES

- Iridium, BGAN, Thuraya, GPS, FMS, etc

M-COMMERCE

- E-money issuer
- Mobile unit top-up and e-money transactions

SOFTWARE DEVELOPMENT



- Core banking system and banking solutions
- National payment center platform

AWARDS

- **Top five tax payer in the last eight years**
  State Tax Authority
- **Nominated as the Top 10 enterprises in Mongolia**
  Mongolian Chamber of Commerce and Industry
- **The Leading Company in Corporate Governance**
  Mongolian Chamber of Commerce and Industry

2002 - 2010 years

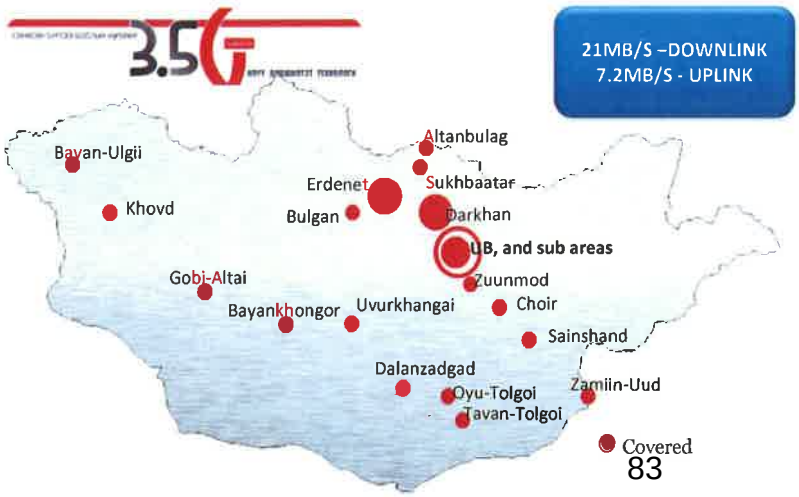
- Enterprise of the Year (2001-2004)
- The Best National Brand (2002)
- The Best Service Organization (2003)
- Recognized Service Organization (2004)
- Organization that is Successfully Introducing New Technology in the Information Field (2004)
- Market Leader Company (2005)
- Organization that is Implementing Social Responsibilities (2006)
- Leading Enterprise in Corporate Social Responsibility (2010)
- "CACCI Golden Award" from Confederation of Asia-Pacific Chambers of Commerce and Industry (2010)
- Good Corporate Governance Company (2011)

5

NETWORK COVERAGE

2G Coverage:
Mongolia's biggest coverage: 95% of Mongolian Soums & Towns already covered by MobiCom
Total 375 places covered by MobiCom Network

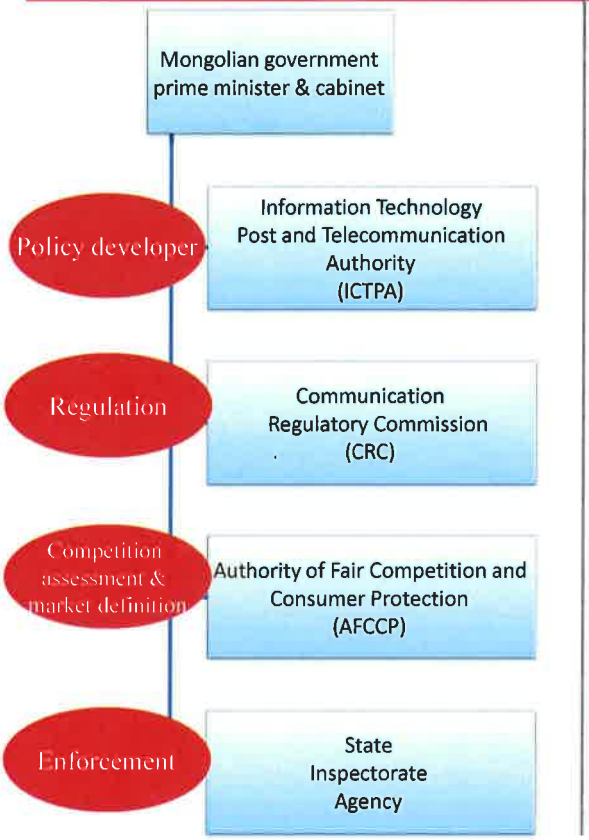
3G Coverage: (launched in 2009)
UB city with 58 suburb area, all 21 province center



Railway optical fiber network
ICNC optic fiber network
MobiCom optical fiber network
Existing digital MW link of MobiCom

STRUCTURE OF ICT SECTOR

MobiCom



MAIN PLAYERS

Fixed line
Mongolia TeleCom
Railway Authority
Univision (VoiP)
Mobinet (VoIP)....

Mobile Service (4)
MobiCom
Skytel
Unitel
G-Mobile

Network (backbone)
Mobicom
ICNC
Skynetworks
Gemnet

Bandwith Wholesale
Mobicom
Gemnet
Railcom

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Thank you!

MobiCom Corporation
Ulaanbaatar, Mongolia