Launch of the Initiative on ICT for Development in the Asia-Pacific Region ICTD-ASP) and Follow-up Meeting of the Connect Asia-Pacific Summit

29-30 April 2014, ADB HQs, Manila, Philippines

Our Cooperation Activities in past decade and Current strategy

April 30, 2014

Yosuke Uchiyama, Government and Industrial Affairs Department, KDDI Corporation

Session 6: Public and Private Partnership

■ Activities for Global

- **CSR (Corporate Social Responsibility) and CSV (Creating Shared Value)**
- **Business Strategy**



■ KDDI Group

- **KDDI Foundation**
  - Cooperation project activities with Asia-Pacific countries
  - ICT Training courses for developing countries
  - Consultant (ODA: Official Development Assistance)
- **KDDI Corporation**
  - Global Business
- **Subsidiary**
  - Submarine Cable
  - Research Laboratory
  - Installation/Construction
  - Others

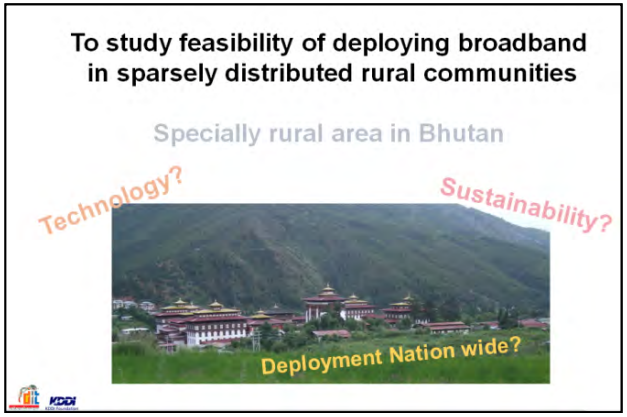
Cooperation project activities with Asia-Pacific countries

- **ICT**
  - **Communication**
    - Infrastructure
    - Wired
    - Wireless
    - Computer and peripheral
  - **Information**
    - Open Source System
    - Software in Market
    - Proprietary Application
  - **National Strategy**
  - **Technology**
    - Latest/Sophisticated vs. Matured
    - Appropriate Technology

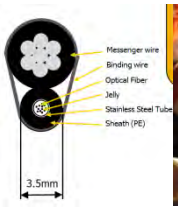
2014	---2 countries-----	--- Could for education & M2M for disaster ---
2013	Nauru:	Study of Resource Center with installation Fiber cable in G-LAN
2013	Marshal:	Expert Mission: Splicing Technology and increasing traffic
2012	Micronesia:	Study of Tele-Health-Center in very isolated outer island
2012	Mongol:	Research of launching National satellite
2012	Bhutan:	Pilot Installation of access NWs in 3 rural, using WiMAX, Fiber and Wi-Fi
2012	Nauru:	Expert Mission: Resource center
2011	Cambodia:	Trouble shooting and Donation of Spare Parts for sustaining the project
2011	Myanmar:	Teaching ICT for supporting NPO
2011	Bhutan:	Expert Mission WIMAX for access line in rural area
2011	Marshal:	Pilot installation of Femtocell with VSAT in the remote island
2011	Vietnam:	Study of ICT measure for invisible people to increase the quality of life
2010	Philippines:	Install Shared information with donation of PC for conservation of marine
2010	Marshall:	Study of Femtocell with VSAT
2010	Cambodia:	Evaluation of NW Monitoring tool for the previous project
2009	Vietnam:	Study of the E-Learning system using SNS futures
2009	Cambodia:	Replacing the Wi-Fi link between KDDI schools supporting NGO
2008	Cambodia:	Donation of Solar generator at Schools and Health centers for previous project
2008	Micronesia:	Pilot installation of Tele-centers, 5 centers, 3 states with delay compensation
2007	Cambodia:	Trouble shooting Wi-Fi links for schools supporting NGO
2007	Cambodia:	Pilot installation of wide area and broadband Wi-Fi NW, 2 Schools and 7 Health centers in rural area connecting with central hospital and University
2006	Cambodia:	Broadband Wi-Fi connection in schools and hospital in rural area, East boundary
2006	Amateur radio:	Earth-Moon-Earth communication by using KDDI parabolic antenna
2006	Vietnam:	Study of WiMAX technology with Geometrical Information for Disaster
2005	Cambodia:	Installation of Wi-Fi link to isolated school in rural supporting NGO
2005	Philippines:	pilot installation of e-learning and e-commerce linked with 4 schools and 2 municipals in the remote island and 1 university in Cebu
2004	Indonesia:	Study of PLC and wireless LAN linked with university and 2 high schools in rural for remote class room and e-learning
2003	Vietnam:	Evaluation of wireless LAN for medical information and real time video class
2002	Malaysia:	Evaluation and study of Wireless LAN in rural area

3 Practical & experimental installations in Rural Area, Bhutan in 2013

- Optical Fiber experiment at Shengana village
- WiMAX network at Ura village
- Advanced WiFi with WiMAX network in Phobjikha Valley
- *(Gateway at Thimphu where ISP Center)*



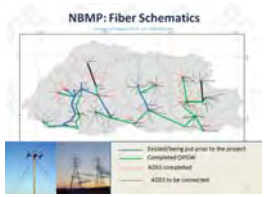
Metal Packed Armored Optical fiber Cable

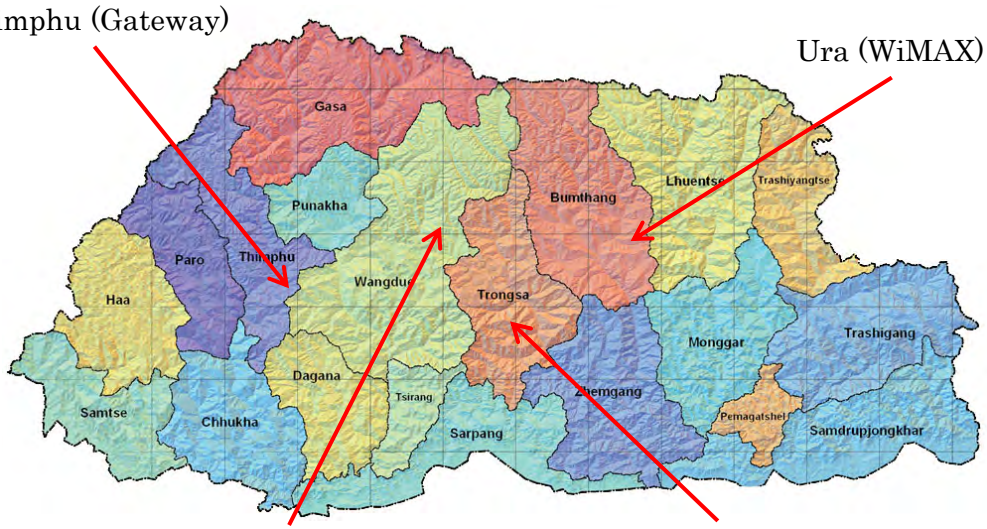


WiMAX and Gateway

Advanced WiFi without skilled people

3 Practical & experimental installations in Rural Area, Bhutan in 2013





Mongolian Strategy and Plan

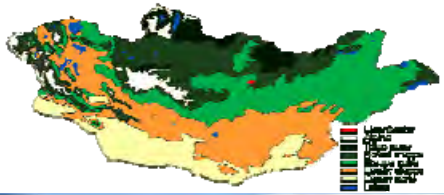
ITPTA

KDDI Foundation

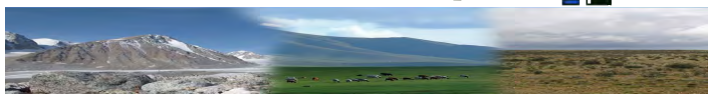
- **Technical and Economical Feasibility Study and Preliminary Design** for National Communication and Remote Sensing Satellite Launching Project.

- **"Mongolian National satellite project"** approved by Mongolian Government. The project was included following activities:
    1. Improving legal environment to promote space technology development;
    2. Developing long term strategy for space industry development,
    3. **Developing national communication satellite system**,
    4. **Developing national earth observation satellite system**,
    5. Promote international cooperation for the space technology development,
    6. Human resource development.

- **National Space Council**
    - 40 members including space technology related researches, specialists and government bodies.



- **Communication and Earth observation satellite ground stations,**
    - To identify potential locations to host the Space Control Center for the satellite that will soon be ordered.
- **Request for information**
    - To help make a decision on who will be our potential partner.

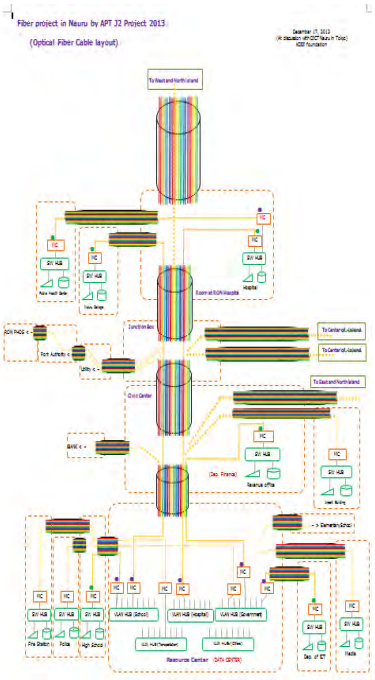


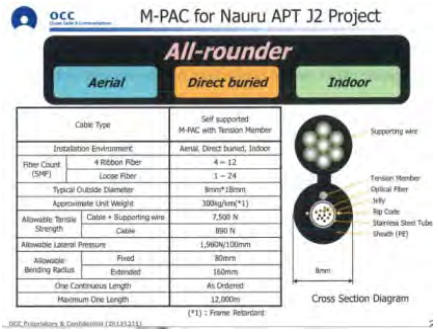
Study of Resource Center where is very limited Internet connection in Nauru in 2014

Bankruptcy of TELCOM

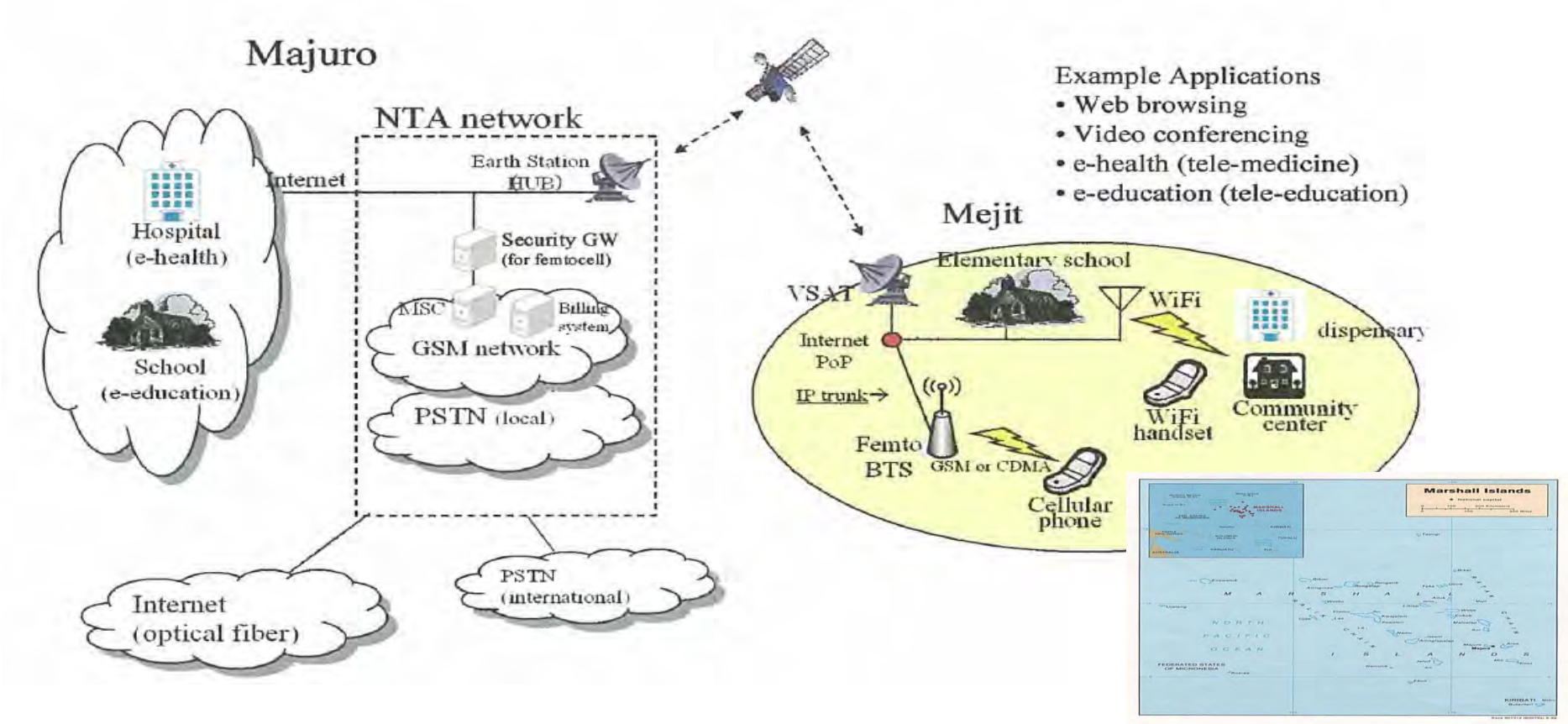
Currently used cupper cable for network

Optical fiber LAN for government





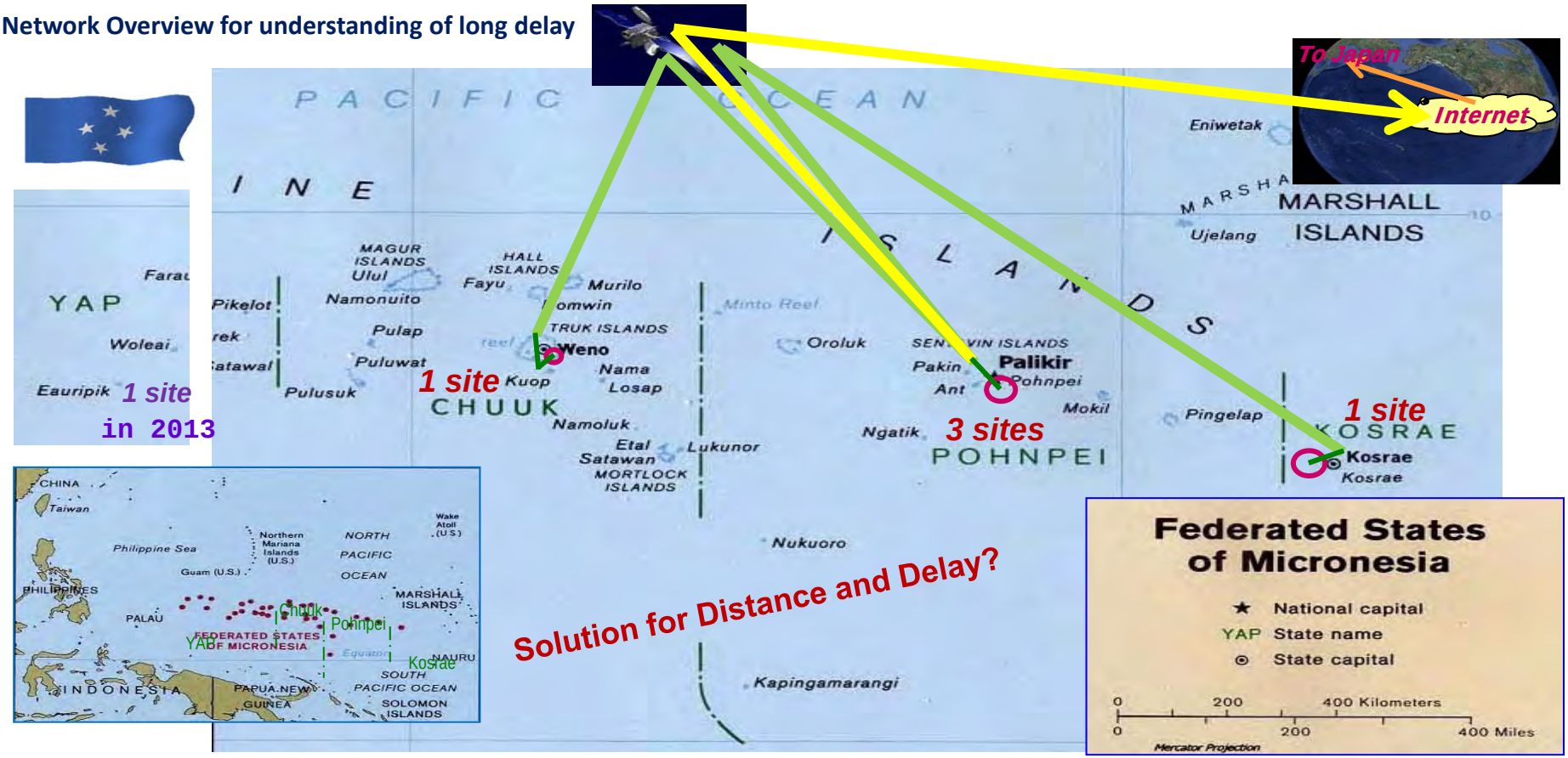
Community Telecenter in the small Island, Installing Internet and Femto-Cell, Marshall in 2011,2012



Pilot Installation of Tele-Center for remote education and Community in Rural Area and Isolated Islands, in Micronesia

in 2009

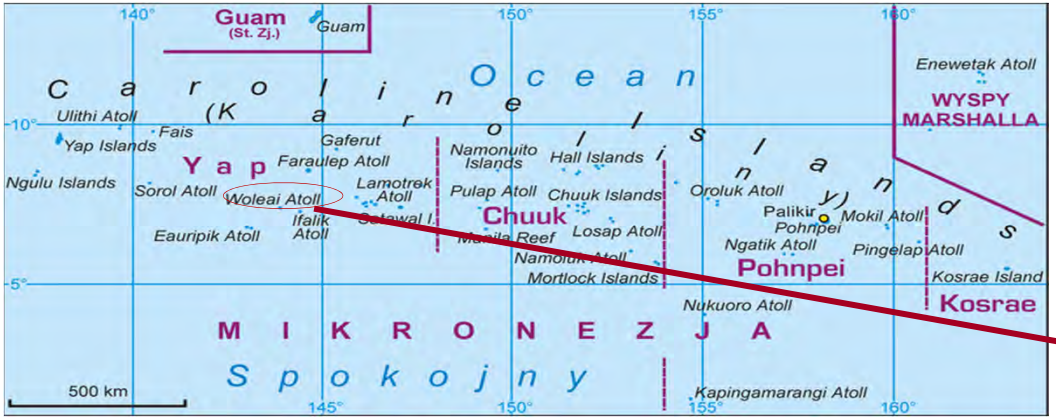
Network Overview for understanding of long delay

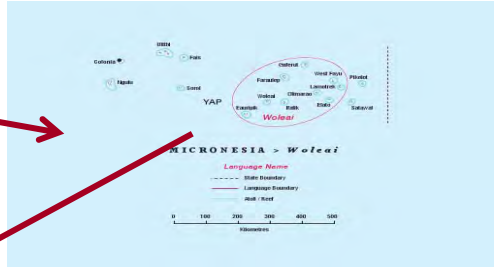


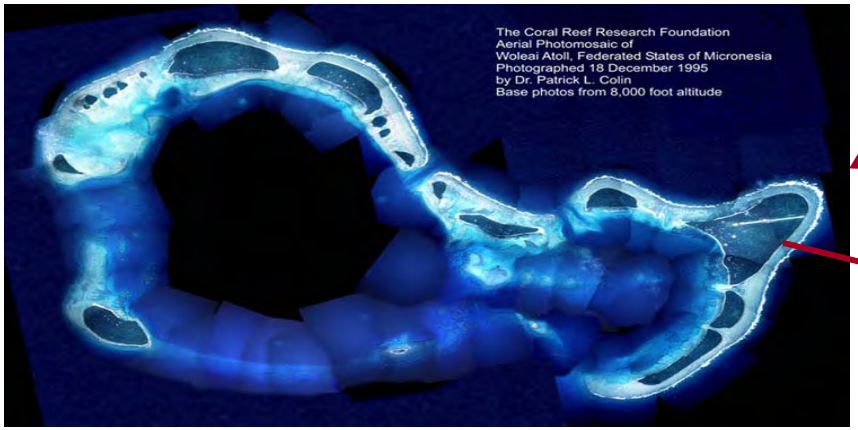
Some of Tele-Centers in Rural Area, in Micronesia in 2009

Internet and Sustainability in Isolated Outer Island in 2014

- Falalap Island, Woleia Atoll, Yap State







Remote-medicine and Remote-education on community network connected with rural and urban by Wireless LAN in Cambodia in 2008,2010

USA, Japan….

HOSPITAL
NGO/NPO

Universities

Other Area in Cambodia

Internet

Mbps

Phnom Penh

Ministry
MPTC

University

Central Hospital

27Mbps

HUB

~5km Access

Urban Area

Long Distance Data Link
(about 25km)

27Mbps

About 18km

Rural Area

Health Center

Health Center

KEC School

HUB

~12km Access

School

27Mbps

Health Center

Health Center

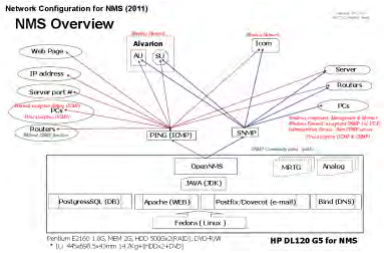
Health Center

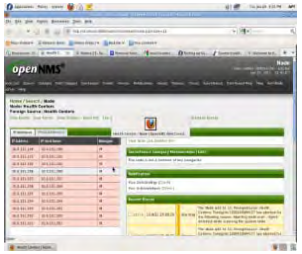
Health Center

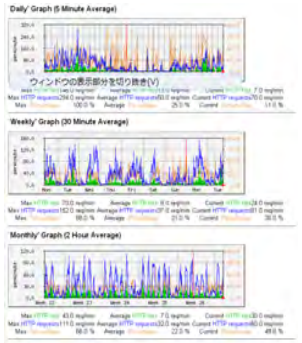
Health Center

Ang Snuol District

Remote-medicine and Remote-education on community network connected with rural and urban by Wireless LAN in Cambodia in 2008,2010





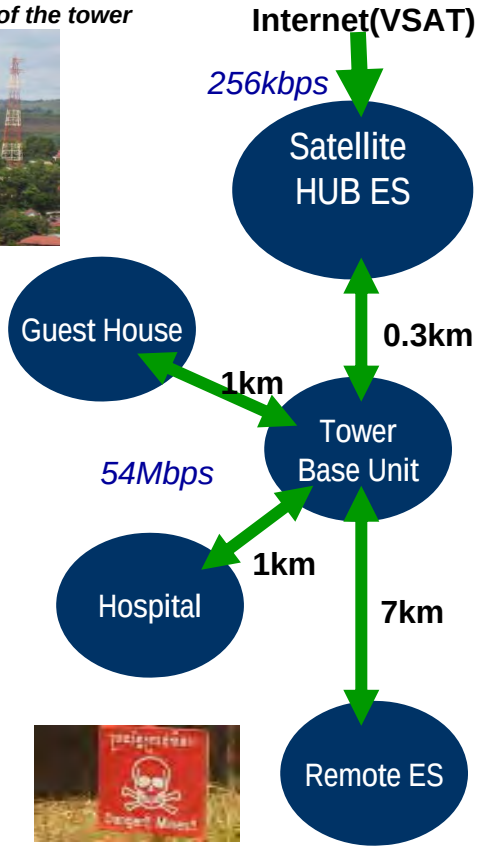


Improved WiFi 54Mbps in Rural Area in East side of Cambodia in 2006

Remote school and houses

Hospital

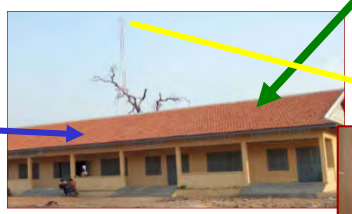
Toward to Remote Elementary School from top of the tower



Wireless LAN Connection, in north/south side of Cambodia in 2005

Internet from Isolated rural area

In rainy season, Elementary School is isolated by flood, no-electricity and no-telephone



6km

Internet(VSAT)

9km

Antenna on Tree Branch Mast

Wireless LAN Demonstration between a elementary school and a mobile position

Joint Research o ICT Solutions for Improving the Quality of Life of Blinds in Viet Nam in 2011

Still Running, 100 years old Braille Printer

Training of Braille

User Interface for Braille
Display/Keyboard and e-Memo

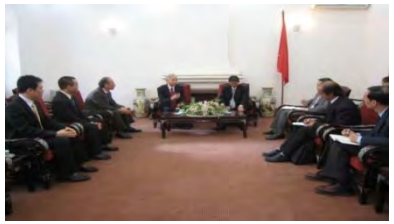
Practical installation
ICT center at the Blind School

Discussion of policy/measure
for society with Blind

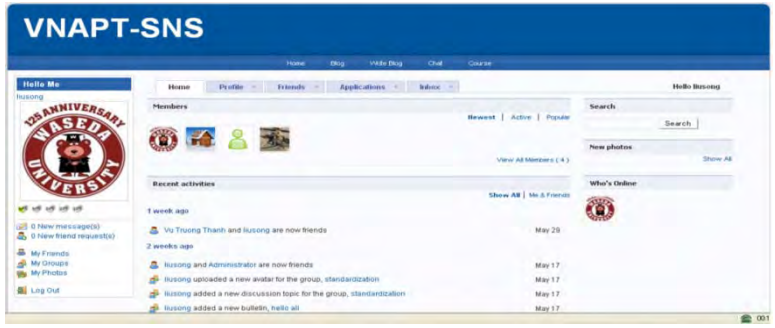
Making voice/audio book at studio
(Improved audio quality at home no-more studio)

E-Learning System based on SNS, Viet Nam in 2008

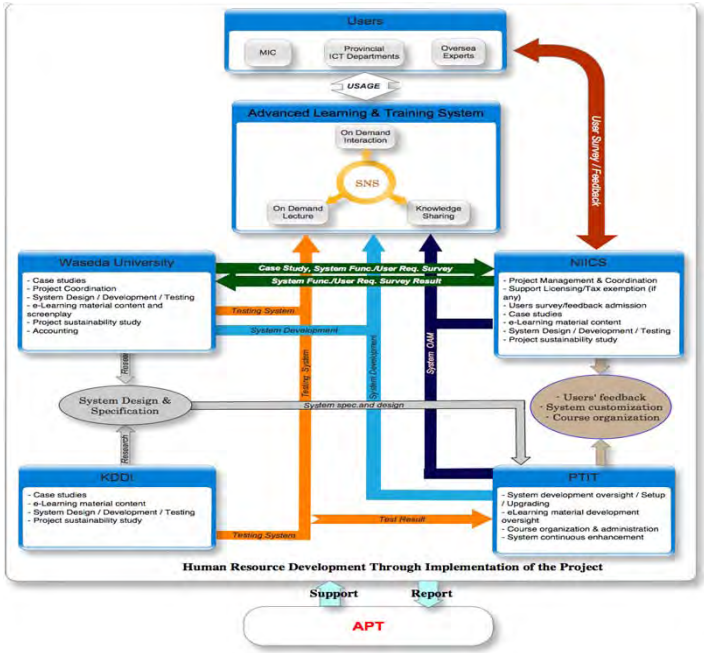
On Easy fit Close Network by using SNS(Social Network Service)technology



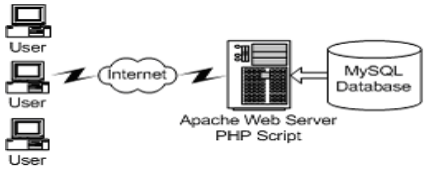
Sample Educational Material: Standardization



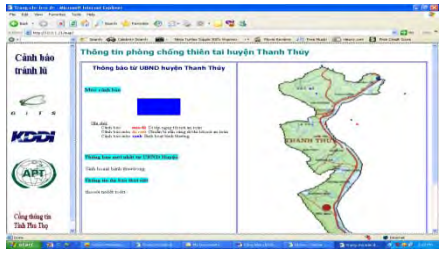
Multimedia. Interact, depend on each of capability/ability, Close network but easy entry, light load of management, Chat in group and etc.



Cooperation model for the project in Vietnam, 2008



WiMAX and GIS for Disaster prevention in Viet Nam in 2006



Main page of GIS application for Disaster prevention. (Geographic Information System)

Video conference with 2 reflected wave(WiMAX)

Tele-medicine and Remote-class in Hatinh, Vietnam in 2003

Tele-medicine and remote lecture to College from hospital

Video Transmission

Hatinh General Hospital

X-ray Image Transmission

500m

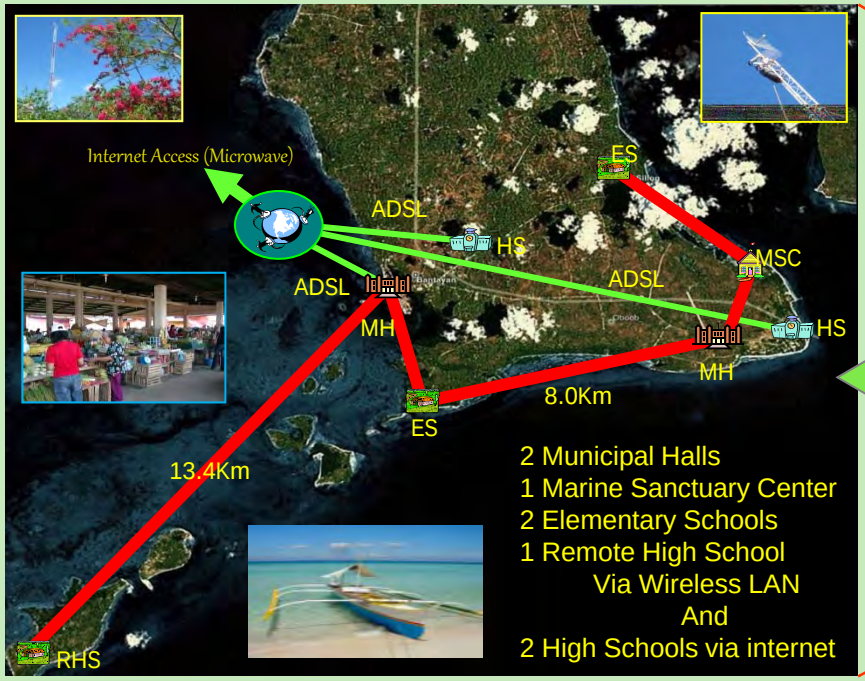
Medical College

13km

Cam Xuyen Hospital

Network Connection

Total distance **31.4Km** connected by less 10mW wireless LAN



Bantayan Island. Wireless Network

University Philippines (Manila, Cebu)
Waseda University & Honjo High School

Connection
Cities in Philippines and with Japan
through Internet

Pilot Project of E-Learning on Wireless Network, at Small Island, Philippines in 2006

Video communication with the schools in Japan is available.

Lots of multimedia educational material on the e-education system (web base) with secure operation

- Education itself (language, Mathematics, Sociality and many)
- Protection of the marine resources
- New market in web and skill up of commercial fishing

Teachers and Student can get award from Central government programs even in remote islands to access to this system.

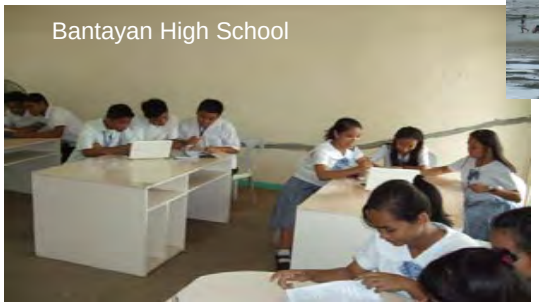
Video conference and multimedia remote class in the island.

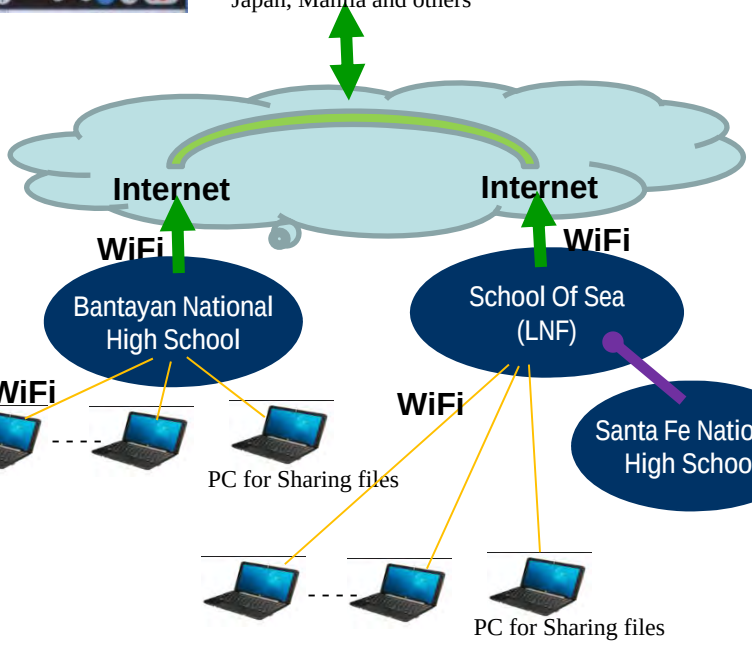
Checking RF-ID on the plants in real field.

The screen is the professor at Waseda University in Tokyo, Japan

Protection of Marine Resource (ICT donation) by KDDI Corporation and KDDI foundation in 2011

Japan, Manila and others





Remote-Education in LOMBOK island, Indonesia in 2004

Internet(VSAT)

University Mataram

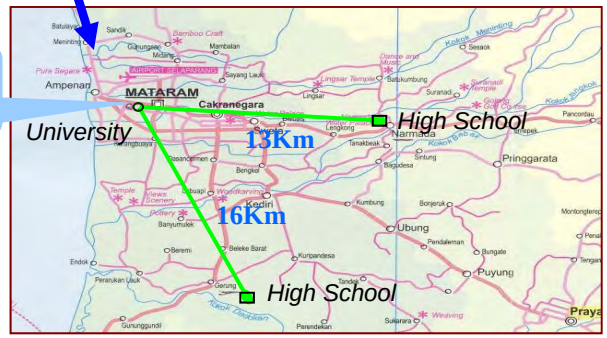
13km

High School Narmada

16km

High School Gerung

Remote Education



Remote Education from University through 2 high schools

Wireless LAN in Kuching & Bario, Malaysia in 2002

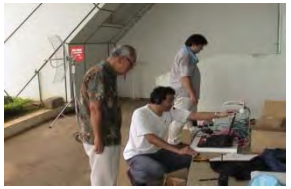
1st Trial of Wireless LAN system in Rural Area

University Buildings

1 ~ 5Km

Field Position

Wireless Performance Test In Rural Area



KDDI Global Strategy

Global Strategy

グローバル戦略 <海外事業の拡張>

データセンター、クラウド、海外SI、ネットワークといったグローバルICT基盤を生かし、高付加価値のICTソリューションをワンストップで提供する体制を強化していきます。また、日本でのインターネット事業、WiMAX事業、コンテンツ事業でのノウハウを駆使し、コンシューマビジネス等の新規事業展開も推進しています。海外の重要市場で段階的に成長戦略を推進し、当面は、アジアにグループの総力を結集して、事業成長を図っていきます。

Global Strategy — Expanding Global Business —

By taking advantage of such global ICT platforms as data centers, clouds, overseas system integration, and networks, we are strengthening our framework as a one-stop provider of high-value-added ICT solutions. By leveraging the expertise we have cultivated in Japan in the Internet, WiMAX, and content businesses, we plan to make inroads into consumer and other new businesses, as well. Our growth strategy calls for a gradual move into key markets. At present, we are working to consolidate our Group strength and focusing on business growth in Asia.

グローバル戦略
Global Strategy

重要市場で段階的に推進
まずはアジアでグループの総力を結集

Gradually moving into key markets
First consolidating overall Group strength in Asia

グローバルICT事業
Global ICT Business

グローバルコンシューマ事業
Global Consumer Business

クラウド/SI
Cloud/SI

DMX TECHNOLOGIES

ネットワーク
Networks

データセンター
Data centers

TELEHOUSE

新興国での新事業
Business in emerging markets

MVNO

KDDI MOBILE

LOCUS

Total Call INTERNATIONAL

Mobile Operator in Mongolia

MobiCom

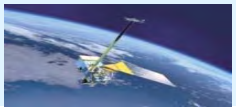
MobiCom Corporation is the largest telecommunication service provider in Mongolia

CORPORATE PROFILE	
Company Name	MobiCom Corporation LLC
Establishment	March 18, 1996
Headquarter	Ulaanbaatar, Mongolia
Shareholders	Newcom Group Sumitomo Corporation **KDDI Corporation**
Services	GSM/3G Mobile, Handset, Broadband, Satellite, Infrastructure, Enterprise solutions, Contents, Mobile payment, Call center, etc.
Mobile Subscribers	1.3 million (About 50% Market Share)
Number of employees	1,500 (MobiCom Group)
Website	http://www.mobicom.mn

HISTORY	
Mar. 1996	GSM Service (Post-Paid)
Oct. 1998	GSM Service (Pre-Paid)
Jan. 1999	WLL Service
Feb. 2001	ISP Service
Aug. 2002	International Call Service
Mar. 2004	GPRS/MMS Service
Dec. 2007	M-Commerce
Mar. 2009	3G Service







KDDI Business Vision

KDDIの事業ビジョン KDDI's Business Vision

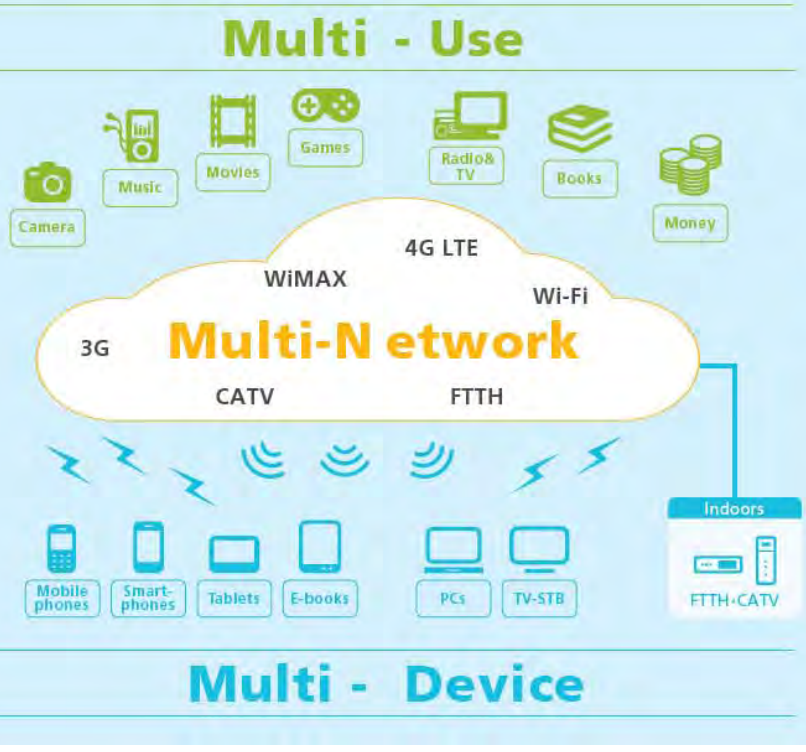
3M Strategy

3M戦略 <国内事業の成長>

KDDIは、「マルチユース」「マルチネットワーク」「マルチデバイス」の3つの頭文字からなる「3M戦略」を推進しています。スマートフォンやタブレット端末などお好みのデバイスで、つながりやすい、最適なネットワークを介し、魅力的で多彩なサービスやコンテンツをシームレスにご利用いただける通信環境をお届けします。

3M Strategy — Domestic Business Growth —

KDDI is pursuing a "3M Strategy," named after the initial letters of "Multi-use," "Multi-network," and "Multi-device." Through this strategy, we aim to provide a communications environment that gives customers seamless access via their devices of choice—such as smartphones, tablets or others—to attractive and diverse services and content, over optimized networks.



Multi-Use マルチユース

KDDIならではのオープンインターネットを自由にお楽しみいただくために、固定やモバイルといったネットワークや、デバイスの違いを気にせずに、ご利用いただけるコンテンツ・アプリケーションをご提供します。

Aiming to provide the open Internet in the way that only KDDI can, we will strive to provide a variety of content and applications that customers can enjoy via any device without a recognizable difference between networks, whether they be fixed-line or mobile.

Multi-Network マルチネットワーク

固定系ではFTTHやCATV、モバイルでは3GやWiMAX、LTEなどの複数のネットワークにWi-Fiを有機的に組み合わせ、シームレスな通信環境をご提供するとともに、急増するデータトラフィックを収容し、高品質な社会インフラを効率的につくり上げていきます。

We provide a seamless communications environment that combines multiple networks, including fixed-line access FTTH and CATV networks, and mobile 3G, WiMAX, and LTE networks, through Wi-Fi. This approach lets us provide a high-quality social infrastructure by efficiently containing the rapid expansion in mobile data traffic.

Multi-Device マルチデバイス

好きな機種がお選びいただける充実のスマートフォンラインアップに加え、タブレット端末、PC、TVなどの多様なデバイスで、同じコンテンツ・サービスをご利用いただけるビジネスモデルの構築を目指しています。

We aim to create a business model that allows customers to access the same content and services from our extensive smartphone lineup, from which customers can select their handset of choice, as well as from tablets, PCs, TVs, and a host of other devices.

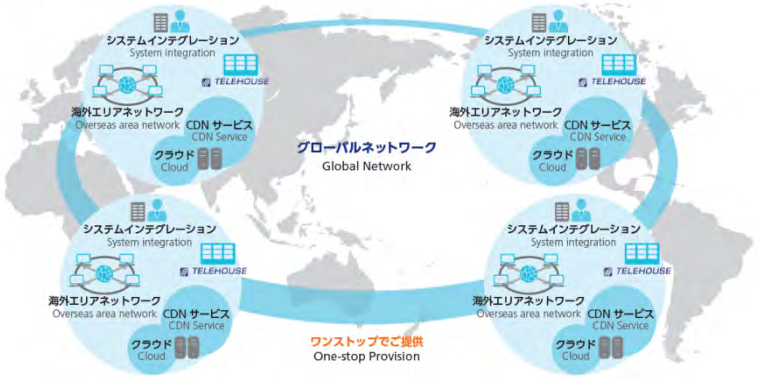
Solution Business

「もっとグローバルへ」—グローバルICTソリューション
"More Global!"—Global ICT Solutions

日本の国際通信のパイオニアとして蓄積してきた実績とノウハウ、
高品質なグローバルICTソリューションやグローバルコンシューマサービスを提供しています。

Leveraging the expertise we have accumulated as a pioneer in Japanese international telecommunications, we offer high-quality global ICT solutions and global consumer services.

KDDI のグローバルICT ソリューション　KDDI's Global ICT Solutions



KDDI's Global ICT Solutions

With a globe-spanning network of more than 100 locations, we provide total support for Japanese companies seeking to develop their businesses overseas, including such network services as IP-VPN and wide-area Ethernet services, "TELEHOUSE" brand data centers, cloud services, and global system integration. We operate some 60 sites in Asian countries, in cooperation with DMX Technologies and CDNetworks. We have also established an office in Myanmar, a vigorous market experiencing an influx of foreign firms, and are making other moves to steadily enhance our structures for providing global ICT solutions offering world-leading quality.

[Photo] KDDI Myanmar

"TELEHOUSE," Our Global Data Center Brand

"TELEHOUSE," KDDI's global data center brand, is regarded highly by customers around the world for its excellent reliability and service quality. Available at 46 locations in 24 cities in countries including Japan, through TELEHOUSE we provide corporate customers who are developing their businesses worldwide with ICT solutions designed to a global standard. We provide seamless bundled support, from constructing networks, purchasing servers, and delivering applications to maintaining operations and monitoring security. We have recently opened TELEHOUSE data centers in Germany and Russia, and are expanding our presence in Greater China, including Hong Kong.

Global Network Services that Deliver the Highest Domestic Quality Levels Overseas as Well

Using a backbone of high-capacity broadband optical fiber networks, KDDI provides high-quality seamless global network services to more than 150 countries and regions. We ensure network reliability by arranging optical communications channels in individual countries and regions, ensuring multiple routes, and providing dispersed equipment. Between Japan and Europe, we collaborate with Rostelecom, Russia's long-distance telecommunications provider, to provide a 10Gbps wavelength service that allows high-volume content and real-time bidirectional communications with low delay and at an inexpensive price. In the Asia-Pacific region, we have a state-of-the-art submarine cable network that includes the trans-Pacific 20Tbps capacity Unity cable and the South-East Asia Japan Cable that links Japan and Southeast Asia using a total capacity of 28Tbps to provide a high-quality, low-delay network.

Cultivating New Growth Markets ——Global Consumer Business

KDDI is cultivating new markets, based on the mobile phone and Internet expertise it has cultivated in Japan. We are commencing and developing business in the emerging markets and developing countries of Asia, which are expected to experience high growth going forward, and concentrating on the U.S. immigrant market. As one example of our activities, in 1996 we entered the mobile phone business in Mongolia through MobiCom—a local telecommunications company with an approximate 50% market share. We are also focusing on the immigrant market in the United States, which is growing every year, by rolling out easy-to-use services through Locus Telecommunications, an MVNO provider.

Thank you very much

Designing The Future

KDDI

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