

# Strengthening ITU - CLMV Subregion Cooperation on Telecommunication/ICT Development

*Subregional Telecommunication Ministerial Forum for CLMV*  
11-12 December 2009, Nha Trang, Vietnam

Eun-Ju Kim Ph.D.  
Head, ITU Regional Office for Asia and the Pacific

- ✓ Overview of ICT Policy & Regulatory Environment
- ✓ ITU Development Platforms in Asia-Pacific Region
- ✓ ITU Activities in the CLMV Sub-region
- ✓ ITU Proposals to the CLMV on Focused Areas
- ✓ Ways Forward: Challenges and Recommendations

# Overview of ICT Policy & Regulatory Environment

# Paradigm Shifts in ICT: Interdependence !

## Policy & Regulatory Drivers

- Introduction of competition
- Lowering barriers to entry and operation
- Fostering business innovation and converged services
- Promoting ubiquity of services
- Recognizing telecommunication networks as a backbone for e-economy
- Increasing interests from governments to capitalize on the benefits of telecom networks

## **INTERDEPENDENCE**

## Technology Drivers

- Switch from copper to wireless and optical fibre
- Increasing role of software
- Increasing capacity to accommodate multiple services
- Centralized to distributed network architectures
- Operator-centric to User-centric
- Standardized to customized
- PSTN/PLMN to IP enabled NGN

Technology  
&  
Service  
Neutral  
Policy/  
Regulatory  
Regime

## Business Drivers

- Ability to provide triple & quadruple play
- Internet becoming the common delivery platform for all types of content services
- Increasing capacity to accommodate multiple services
- Ability of ISPs to provide services closely competing with Telcos
- Unlicensed spectrum & spectrum trading
- Peer-to-peer arrangements
- Grey-markets created by disruptive technologies"

# Key Regulatory Issues in the converged ICT

- 1 **VoIP classification**
  - **Classification of VoIP** as a traditional Voice line service or different treatment
- 2 **Unbundling**
  - Policies regulating **unbundling** and infrastructure sharing (e.g., collocation)
  - **Service level** obligations between operators
- 3 **Numbering**
  - Policies on **numbering** availability, nature (i.e., geographic vs non-geographic) and portability
  - Regulatory environment around broadband
- 4 **Interconnection**
  - Treatment of **interconnection** (single tandem termination prices) (originating and terminating)
  - Policies on pricing of leased lines, equipment building sharing, etc
- 5 **Retail pricing**
  - Policies on retail pricing for **VoIP providers**
  - Pricing / bundling flexibilities for **incumbents**
- 6 **"Service obligations"**
  - Policies on **emergency calls** to police / fire (i.e., tracking call localization)
  - Obligation to ensure **wiretapping** possibility

Clearly impacts attractiveness for/of

- Consumers for instance through numbering, access to emergency calls, arbitrage margins
- Economics of attacker through unbundling options and fees, interconnection charges, VoIP classification

## 9<sup>th</sup> GSR on Hands-on or Hands-off? :

## Stimulating growth through effective ICT regulation

### Themes

1. Effective regulation in a converged world: New challenges for regulators
2. Impact of the financial crisis on regulation
3. Consumer protection: Meeting the expectations of the connected
4. Universal access policies in the 21st century
5. IP and traditional interconnection: A world of divergence?
6. Mobile termination: To regulate or not to regulate?
7. Market entry in a converged world
8. A VoIP world

### Best Practice Guidelines

#### Addressing four main areas:

- ✓ Promoting convergence to further develop ICT and broadcasting markets;
- ✓ Building effective regulatory institutions;
- ✓ Using regulatory tools to stimulate investment in a converged world;
- ✓ Stimulating growth in innovative services, applications and devices towards connecting the unconnected and for the benefit of consumers;

#### New topics:

- ✓ Cyberthreats, climate change, consumer focus, converged regulators (broadcasting content other facilities)

[www.itu](http://www.itu)



# **ITU Development Platforms in the Asia-Pacific Region**

## World Telecommunication Development Conference (2007-2010)

ing the world

### Six Operational Programmes

- Programme 1: Regulatory reform
- Programme 2: Information and communication infrastructure and technology development
- Programme 3: E-strategies and ICT applications
- Programme 4: Economics & financing, including costs and tariffs
- Programme 5: Human Capacity Building
- Programme 6: Least developed countries (LDC) and Small Islands Developing States (SIDS), and emergency telecommunications

### Special Initiatives

Gender, Children and Youth, Indigenous people and communities, Persons with disabilities, Communities living in Remote/Underserved areas

5 Asia-Pacific Regional Initiatives

Various projects & actions



Japan



European Commission



NTC

Thailand



iDA

Singapore

Delivery Mechanisms

Seminars & Workshops

Country Specific Actions

Human Capacity Building Trainings / Fellowships

Deployment of Infrastructure

Through PPP

# ITU Asia-Pacific Regional Initiatives (2007-2010)

## ASP Regional Initiative 1

Telecommunication/ICT policy and regulatory cooperation in the Asia-Pacific region

## ASP Regional Initiative 2

Rural Communications - Infrastructure development

## ASP Regional Initiative 3

Next Generation Networks (NGN) planning

## ASP Regional Initiative 4

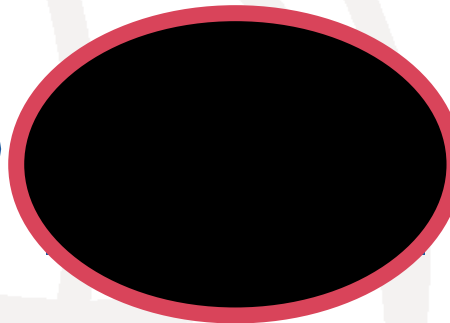
The unique telecommunication/ICT needs of Pacific islands and small island developing states (SIDS) in the Asia-Pacific region

## ASP Regional Initiative 5

Strengthening the collaboration between ITU-T and ITU-D

## Funding

*Doha Action Plan (DAP)  
ITU-D Annual Operational Plan*



*ICT Development Fund*

Through  
PPP

## Delivery Method

*Seminars & Workshops*

*Country Specific Actions  
Human Capacity Building  
Trainings / Fellowships*

*Deployment of Infrastructure*

*Study Questions*

# ITU Asia-Pacific Projects & Partners

## (2008-9)

- Regulatory Training Programme for Thailand;
- International Telecom Regulatory Program in Australia;
- Executive Training Programme for ICT Development in Singapore;
- Universal Service Obligations;
- Rural ICT Policy Advocacy, Capacity Building and Knowledge Sharing;
- New Technology and Applications;
- Next Generation Network Planning;
- ICT Development in Asia-Pacific;
- Reconstruction of telecom infrastructure & early warning system
- Rehabilitation of the ICTI in Afghanistan
- Licensing 3rd Mobile Operator in Iran etc.



National Telecommunications Commission (NTC), Thailand



Asian Development Bank



Servei de Telecomunicacions d'Andorra



IDA

Singapore



MICT  
I.R. Iran



Ministry of Internal Affairs and Communications, Japan



Ministry of Information and Communications, VietNam



Australian Government

Department of Broadband, Communications and the Digital Economy



European Commission

# ITU Activities in Sub-Region - CLMV -

# ITU Actions/Cooperation in the CLMV Subregion (1)

## Cambodia

- Radio Frequency Management (2009)
- SMS4DC License and Training (2007)
- MIS Project (2007)
- Draft Universal Access Program (2006)
- Draft National Telecommunication Development Plan (2006)
- Hosting of the following events:
  - *Regional Training on SMS4DC (2007)*
  - *Regional Training on COSITU (2005)*
  - *Subregional Telecommunication Meetings for CLMV*

## Lao PDR

- Assistance on the Draft National ICT Law (2009).
- Expert Assistance on Licensing (2008)
- Assistance on Spectrum Fees Regulation (2007)
- Establishment of ITU-CISCO Internet Training Center (2003)
- Hosting of the following events:
  - *Workshop for Newly Established Telecommunication Regulators (2007)*
  - *SMS4DC Train the Trainers Workshop (2006)*
  - *Subregional Telecommunication Meetings for CLMV*

# ITU Actions/Cooperation in the CLMV Subregion (2)

## Myanmar

- Dispatch of 100 satellite phones with free airtime in the aftermath of cyclone Nargis (2008)
- Assistance on Licensing Authorization (2008)
- Assistance on Drafting Implementing Rules and Regulations for Myanmar's Certification Authority (2007)
- Capacity Building Program (2007)
- Hosting of Subregional Telecommunication Meeting for CLMV (2006)
- Pilot MCTs in Phaunggyi Area (2004-2005)

## Vietnam

- Expert Assistance: Drafting of National Spectrum Law and Framework of Telecommunication Law (2007)
- CIIP Assessment Toolkit Test (2007)
- Establishment of Pilot MCTs in Dak Lak and Former Ha Bac (2002-2003)
- Hosting of the following ITU events:
  - *Subregional Telecommunication Ministerial Forum for CLMV (hosted 5 meetings including the CLMV Ministerial Forum, 2009)*
  - *Regional Workshop on Policy and Regulations for Newly Established Regulators(2009)*
  - *ITU Regional Development Forum: Bridging the ICT Standardization Gap (2008)*
  - *Regional Workshop on Cybersecurity and CIIP (2007)*
  - *RPM for WTDC 2006 (2006)*

# ITU Cooperation with Subregion involving CLMV

## Greater Mekong Subregion

- GMS Pavilion/Exhibition at TELECOM ASIA (Sept 2008; Bangkok, Thailand)
- GMS Telecommunication Ministerial Forum: “Digital Bridge Over Mekong River” (Sept 2008; Bangkok, Thailand)

## ASEAN

- ITU-ASEAN Mobile Commerce Forum (Aug 2009, Jakarta)
- Study on the Dynamics of Women in the ICT Sector in ASEAN countries (2008)

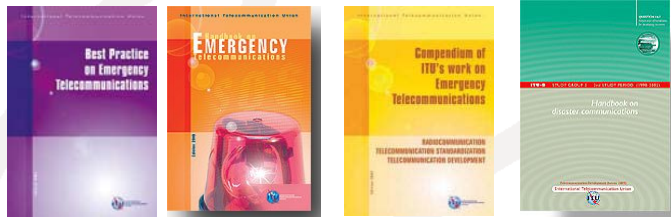


# **ITU Proposals to CLMV on Focused Areas**

# ITU Proposal to CLMV (1): Emergency Telecommunications I

## Events, Training, and Workshops

### Production of Guidelines



## ITU Framework for Cooperation in Emergencies (IFCE)

### Eminent Industry Champion

#### Technology Cluster

- Satellite operators and Land Earth station operators
- Telecom Operators
- GIS/Remote sensing service providers
- Radiocommunications Equipment Providers

### Eminent Corporate Champion

#### Finance Cluster

- Governments
- Private Sector
- Development Banks
- Regional Economic Groups

### Eminent Corporate Champion

#### Logistics Cluster

- Air Transport operators
- International Couriers

*CLMV Countries are disaster-prone, e.g.*



## Recent Disasters: Typhoon Ketsana

- Hit the Philippines and later crossed to **Vietnam & Cambodia** (26-28 Sept 2009).
- More than 500 people are known to have been killed.
- Damage estimates reaching more than USD 100 million.

## Recent Disasters: Cyclone Nargis

- ITU deployed 100 satellite terminals to help restore vital communication links in the aftermath of Cyclone Nargis which hit Myanmar on 2 May 2008.
- ITU was one of the first agencies to arrive and deploy telecommunications resources in Myanmar.





## **When disaster strikes... ...telecommunications save lives**

Call our Emergency Telecommunications Team at +41 22 730 5222

Send an e-mail message to [emergencytelecom-deployments@itu.int](mailto:emergencytelecom-deployments@itu.int)

Send a fax message to +41 22 730 5484

The International Telecommunication Union (ITU) and its partners deploy satellite terminals and other emergency telecommunication equipment to affected countries within the first 24 to 48 hours of a disaster to help restore vital communication links. The equipment is critical in:

- coordinating rescue and relief operations;
- setting up telemedicine links between hospitals and medics in the field;
- providing call centres where disaster victims can contact their loved ones.

ITU pays for the delivery of the equipment, and for its use. The calls are free. ITU also offers training.

**More information is available at [www.itu.int/itu-d/emergencytelecoms](http://www.itu.int/itu-d/emergencytelecoms)**



## **Immediate Information/Action Needed from Disaster-Affected Administrations:**

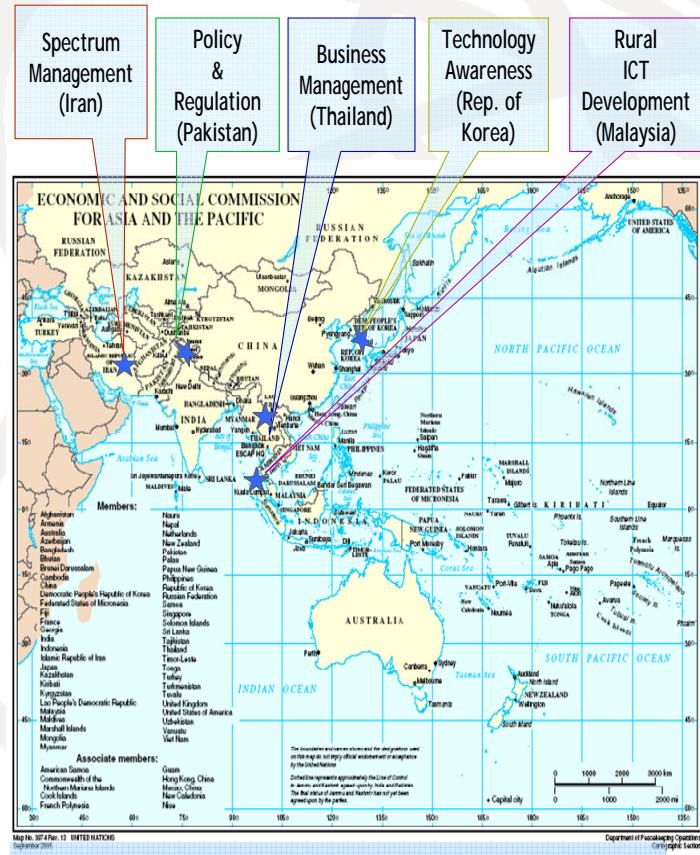
- Contact Emergency Telecommunication Team and/or ITU RO/AO.
- Indication as to number of satellite phones and/or other emergency telecom equipment needed to restore vital communication links
- Arrangements for customs clearance
- Designated Focal Point and contact details
- Exact Address where equipment will be delivered
- Advise ITU RO/AO designated focal point to call in times of emergency.

# ITU Proposal to CLMV (2):

## Capacity Building

### Utilizing the Center of Excellence for Capacity Building

ITU  
Asia-Pacific  
Centres of  
Excellence  
(ASP CoE)  
-  
5 Hosts  
&  
Partners



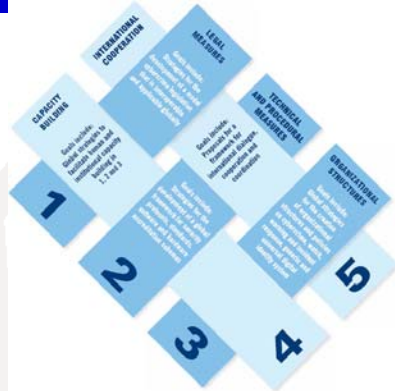
- ✓ Participation in face to face and online CoE trainings
- ✓ Customized training on focused subjects for CLMV Subregion
- ✓ Partnership with any of the 5 CoE nodes
- ✓ Developing joint training courses
- ✓ Co-branding

Invitation to the ITU Regional Human Capacity Development Forum for Asia Pacific and ITU ASP CoE Management Committee Meeting, 14 -17 December, Brunei Darussalam

# ITU Proposal to CLMV (3):

## Cybersecurity

*In line with WSIS C 5: Building confidence and security in the use of ICTs*



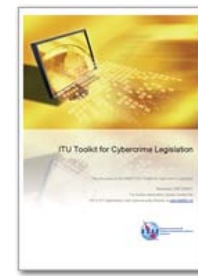
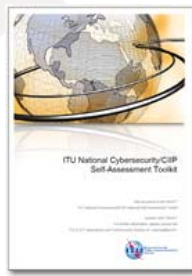
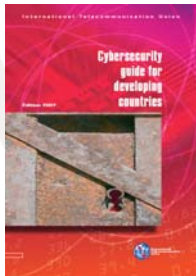
### Global Cybersecurity Agenda

✓ Five Pillars: Legal Measures, Technical and Procedural Measures, Organizational Structure, International Cooperation, and Capacity Building

✓ High Level Expert Group

✓ Regional Workshops

✓ Handbooks and Knowledge Tools



▪ **Direct Country Assistance** to enhance Cybersecurity e.g. developing Public Key Infrastructure, Cyber-legislation and related policies etc.

▪ **Partnership with International Multilateral Partnership Against Cyber Threats (IMPACT)**



# ITU Proposal to CLMV (4):

## ITU Flagship Initiative on Connecting Villages

### The Concept

- Utilize innovative low-cost solutions, while leveraging flexible bottom-up business models and PPP
- Aims to build practical, affordable and sustainable networks and services for rural and remote communities.
- Engage all relevant partners, including network operators and service providers, equipment manufacturers, governments (at all levels), regulators, local entrepreneurs and the communities involved.
- Responsibility for the community-level network and business functions will be managed locally for cost-effective connectivity

### Expected Outcomes

- Establishment of several trial sites to provide proof of concept;
- Improvement of policy and regulation to accelerate the development of rural communications and provide business opportunities for local entrepreneurs;
- Development of locally-relevant mobile applications and content; and
- Extensive roll out of rural communications in selected countries, following successful trial results.



# ITU Proposal to CLMV (5):

## Contributions to Partnership

### ITU Contribution

- ✓ Seed funds
- ✓ Extensive reference materials and other resources
- ✓ Services of ITU internal experts
  - expert advice
  - assistance in drafting TOR, recruitment and review of outputs
- ✓ Possible additional funding from donors responding to ITU Call for Partners
- ✓ ITU's various actions and activities in individual CLMV Countries

### CLMV Contribution

- ✓ Sourcing Funding from other External Partners, e.g. ASEAN ICT Fund and/or other development partners for CLMV-specific actions
- ✓ Development Partners' Seminar/Forum where ITU can be a seminar/forum partner
- ✓ Follow on Implementation to ITU Country Specific Actions



# Ways Forward: Challenges & Recommendations

## ■ National Levels:

- Leadership with political-will
- Governance with efficiency & transparency
- Current economic and financial crisis/recession
- Enabling policy and regulatory environment
- Geography
- Human and Financial Resources Capacity
- Monitoring, evaluation and documentation etc.

## ■ Regional and Subregional Levels:

- Inadequate coordination and cooperation among development agencies, international organizations
- Weak (if not none) of cooperation mechanism
- Duplicated work, wasteful resources
- Project management

- **National Levels:**
  - Ensure political stability and will
  - Equipped with good governance with transparency
  - Formulate vision and national ICT policy & strategies
  - Utilize ICTs as enabler for the national development
  - Provide enabling policy and regulatory environment
  - Strengthen human capacity etc.
  
- **Regional and Subregional Levels:**
  - Strengthen coordination platform
  - Enhance and strengthen (if not develop) cooperation mechanism including resource and knowledge sharing, co-planning
  - Strengthen (sub)-regional organizations

# References

# Major ITU Asia-Pacific /Global Events Planned (2010)

| <b>.N.</b> | <b>Title of the Meeting</b>                              | <b>Venue</b>                 | <b>Date</b>                 |
|------------|--|------------------------------|-----------------------------|
| <b>1</b>   | <b>ITU-TDAG</b>  | <b>Geneva</b>                | <b>24-26 February 2010</b>  |
| <b>2</b>   | <b>ITU-Council</b>                                       | <b>Geneva</b>                | <b>13 - 22 April 2010</b>   |
| <b>3</b>   | <b>ITU-T Study Group 3 (TAS Meeting )</b>                | <b>China</b>                 | <b>April 2010</b>           |
| <b>4</b>   | <b>ITU Study Group 3 Meeting</b>                         | <b>Seoul ,<br/>R.O.Korea</b> | <b>17-21 May 2010</b>       |
| <b>5</b>   | <b>ITU-AIBD Asia Media Summit</b>                        | <b>Beijing,<br/>China</b>    | <b>25-26 May 2010</b>       |
| <b>6</b>   | <b>ITU WTDC 2010</b>                                     | <b>Hyderabad,<br/>India</b>  | <b>24 May – 4 June 2010</b> |
| <b>7</b>   | <b>ITU-ABU Workshop on Digital Broadcasting</b>          | <b>TBC</b>                   | <b>June / July 2010</b>     |
| <b>8</b>   | <b>ITU-D/R WP5D on IMT Advanced (4th Generation)</b>     | <b>Vietnam</b>               | <b>June 2010</b>            |
| <b>9</b>   | <b>ITU-ABBMN High-Level Meeting</b>                      | <b>Bangladesh</b>            | <b>August 2010</b>          |
| <b>10</b>  | <b>ITU-ACMA International Regulatory Training</b>        | <b>Australia</b>             | <b>September 2010</b>       |
| <b>11</b>  | <b>ITU Plenipotentiary Conference 2010 (PP-10)</b>       | <b>Veracruz,<br/>Mexico</b>  | <b>4 -22 October 2010</b>   |
| <b>12</b>  | <b>Global Symposium for Regulators</b>                   | <b>TBC</b>                   | <b>November 2010</b>        |
| <b>13</b>  | <b>ITU Global Forum on Human Capacity Development</b>    | <b>R.O.Korea</b>             | <b>November 2010</b>        |
| <b>14</b>  | <b>ITU/ADB Regional Seminar on Rural ICT Development</b> | <b>TBC</b>                   | <b>TBC</b>                  |

*15 Training Courses under ITU Asia Pacific Centre of Excellence Network also planned in 2010*

For updated information on ITU Activities in Asia Pacific Region,  
please visit <http://www.itu.int/ITU-D/asp/CMS/index.asp>

## Country Specific Actions Planned 1: (2010)

| Country Specific Action                       | Beneficiary                               |
|---|---|
| Numbering Plan                                | Cambodia, Tonga, Solomon Islands          |
| <b>Assistance on Establishment of TRA</b>     | <b>Vietnam</b>                            |
| Universal Service Obligation                  | Tonga                                     |
| Assistance in Telecom/ICT Regulations         | Solomon Islands                           |
| Pilot project on broadband over power lines   | Bhutan                                    |
| Broadband Infrastructure Master Plan          | DPR Korea                                 |
| IPTV Services                                 | Nepal                                     |
| Spectrum Management                           | Nepal, Tonga, Solomon Islands             |
| E-Government Network and Applications         | Vanuatu, F.S. Micronesia, Solomon Islands |
| Cybersecurity Legislation                     | Thailand                                  |
| Capacity Building in ICT                      | Afghanistan, <b>Myanmar</b> , Maldives    |
| <b>National ICT Strategic Plan</b>            | <b>Lao PDR</b>                            |
| Disaster Mitigation e.g. Tsunami alert system | Tonga                                     |
| Conducive and Enabling ICT Legal Framework    | Kiribati                                  |
| Rural Internet Connectivity Systems (RICS)    | Pacific Countries                         |

## Country Specific Actions Planned 2: (2010)

| Country Specific Action                                       | Beneficiary  |
|---|--|
| Establishment and Maintenance of ICT Indicators Database      | Philippines  |
| ICT Policy Roadmap for Persons with Disabilities              | Thailand   |
| Rural Communication Development (2009-2010)                   | <b>Cambodia</b> , Mongolia, India, the Philippines, P.R. China, Rep. of Korea, Sri Lanka |
| Universal Service Obligation (2009-2010)                      | Thailand   |
| NGN Planning and Migration                                    | Sri Lanka<br>India   |
| Interconnection Framework, Cost Modelling and Tariff Policies | Bangladesh   |
| Pacific CERT  | Pacific  |
| Pacific Regional Resource Centre                              | Pacific  |

# ITU Development Plan

(2011-2014)

Proposals at the ITU Asia-Pacific Regional Meeting for WTDC-2010  
At Kuala Lumpur, May 5-7 2009

## Global Development Programmes

1. Information & Communication Infrastructure
2. Cybersecurity & ICT Applications
3. Enabling Environment
4. Capacity Building & Other Initiatives

## Asia-Pacific Regional Initiatives

1. Unique ICT Needs of LDCs, SIDSs, & Landlocked Countries
2. Emergency Communication
3. Digital Broadcasting
4. Broadband Access & Adoption in Urban & Rural Areas
5. Telecom/ICT Policy & Regulation in Asia-Pacific Region

# ITU Asia-Pacific Sector Members

1. Afghan Wireless Communication co.- Afghanistan
2. Asia Pacific Network Information Centre - Australia
3. Bhutan Telecom - Bhutan
4. China Telecommunications Corporation - China
5. China Unicom (Hong Kong) Ltd. - China
6. Huawei Technologies Co. Ltd.- China
7. ZTE Corporation - China
8. Pacific Islands Forum Secretariat - Fiji
9. Bharat Sanchar Nigam Ltd. - India
10. Bharti Airtel Limited - India
11. Cellular Operators Association of India
12. Mahanagar Telephone Nigam Ltd. - India
13. RailTel Corporation of India Limited, India
14. Reliance Infocomm Ltd. - India
15. Telecom Disputes Settlement & Appellate Tribunal - India
16. Telecom Regulatory Authority of India
17. ITU-APT Foundation of India
18. Vihaan Networks Limited (VNL), India
19. Shyam Telecom Limited, India
20. PT. INDOSAT Tbk. - Indonesia
21. PT. Telekomunikasi Indonesia Tbk - Indonesia
22. Telecommunication Company of Iran
23. Fujitsu Limited - Japan
24. Hitachi, Ltd. - Japan
25. KDDI Corporation - Japan
26. National Institute of Information and Communications Technology - Japan
27. NEC Corporation - Japan
28. Nippon Telegraph and Telephone East Corporation - Japan
29. Nippon Telegraph and Telephone West Corporation - Japan
30. Nomura Research Institute Ltd.- Japan
31. The ITU Association of Japan
32. Tokai University - Japan
33. KT Corporation - R.O. Korea
34. Korea Agency for Digital Opportunity & Promotion
35. National Internet Development Agency of Korea
36. Samsung Networks Inc., R.O. Korea
37. Korea Information Society Development Institute (KISDI)
38. Asia-Pacific Broadcasting Union - Malaysia
39. Asia-Pacific Institute for Broadcasting Development - Malaysia
40. Allied Digital Infonety Berhad, Malaysia
41. CyberSecurity, Malaysia
42. Global Knowledge Partnership, Malaysia
43. Green Packet Berhad - Malaysia
44. Maxis Mobile Sdn Bhd. - Malaysia
45. Telekom Malaysia Berhad - Malaysia
46. TM International Berhad - Malaysia
47. U Mobile - Malaysia
48. Communications Regulatory Commission of Mongolia
49. Information Communication Network Company - Mongolia
50. MobiCom Corporation - Mongolia
51. Nepal Telecom, Nepal
52. Nepal Telecommunications Authority - Nepal
53. e Worldwide Group - Pakistan
54. National Telecommunication Corporation - Pakistan
55. Pakistan Mobile Communications Limited - Pakistan
56. Pakistan Telecommunication Company Limited - Pakistan
57. Philippine Global Communications, Inc. - Philippines
58. Smart Communications, Inc. - Philippines
59. Dialog Telekom Limited - Sri Lanka
60. Sri Lanka Telecom Ltd. - Sri Lanka
61. Asia-Pacific Telecommunity - Thailand
62. Advanced Info Service Public Company Ltd. - Thailand
63. Total Access Communication PLC - Thailand
64. True Corporation Public Co., Ltd. - Thailand
65. Viettel Corporation, VietNam

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ITU : <http://www.itu.int>

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