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Committed to connecting the world





### **Connecting the World**

Information and Communication Technologies (ICTs) are increasingly being recognized by governments around the world as the key engine for economic growth and social development.

As the United Nations specialized agency for Information and Communication Technology (ICT), furthering development of ICTs around the world has long been at the core of our work, but has become even more vital over recent years when technological developments have given ICTs an essential role in every aspect of our lives. ICTs are not just an end in themselves, but are the key enablers of the other Sectors. That is why we believe that access to ICTs is essential in order to achieve the Millennium Development Goals (MDG) by 2015.

We can take heart from the incredible boom in mobile telephony over recent years, bringing us to a situation today where 90 per cent of the world population has mobile telephone coverage. We now need to push ahead and match this outstanding success with broadband access. Making broadband available and affordable across the world has become a pressing issue for economic development to boost markets, create jobs and provide services such as telemedicine and e-banking.

The International Telecommunication Union's (ITU's) Development Sector (ITU-D) is addressing the many aspects of expanding ICT access and bridging the digital divide. Governments, private sector and industry are coming together through ITU-D to develop good policy, to create partnerships for ICT investment or to build human capacity for ICT development. The ITU-D is working with Member States through its cybersecurity programme to ensure that access to ICTs is safe. Emergency Telecommunications are also a key part of the ITU-D's agenda in view of the role of ICTs in disaster preparedness.

We look forward to working with you to bring the benefits of ICT access to all.

Dr Hamadoun I. Touré Secretary-General International Telecommunication Union



### Welcome to ITU-D The future begins today

The great strength of information and communication technologies (ICT) is their ability to empower, producing innovative and sometimes surprising results. Throughout history we have seen humanity's ability to adapt to novelties and flourish when the conditions are right. This is all the more true in this era of rapidly evolving ICTs. Imagine how much richer society will be if every individual is given the opportunity of shaping its future!

Let us take heart from the progress that has been made since the establishment of the Millennium Development Goals in 2000 and of the ICT connectivity targets set by the World Summit on the Information Society in 2003 and 2005. Providing the right conditions will be key to fully meeting these goals. We must push ahead in the development of infrastructure, in particular for broadband communications, and in the provision of ICT applications and services. The enhancement of human capacity building and a robust, predictable, enabling regulatory environment will ensure that technological development is sustainable. Among those standing to derive the greatest benefit from ICTs are least developed countries (LDC), small island developing states (SIDS), landlocked countries and emerging economies, all of which deserve special attention. I also consider emergency telecommunications and gender issues to be priority areas in our work.

Given the magnitude of the task, success will depend on working closely with our members and mobilizing resources through public-private partnerships.

As Director of the Telecommunication Development Bureau (BDT), it is my sincere wish that all potential partners will join us in fulfilling this vision and implementing our common goals to connect the world.

Brahima Sanou Director ITU Telecommunication Development Bureau.



### Our mandate

The Telecommunication Development Bureau (BDT), the development arm of the International Telecommunication Union (ITU), is mandated to foster international cooperation and solidarity in the delivery of technical assistance, and to support the roll out and upgrade of telecommunication/ICT infrastructure and services in developing countries.

The World Summit on the Information Society (WSIS) called upon ITU to play a key role in building

a global information society where the benefits of ICTs are shared by all.

To this end, BDT promotes an enabling environment conducive to investment and the development and use of ICT infrastructures and applications. In particular, BDT, in cooperation with public and private stakeholders:

- assists Member States in developing and implementing appropriate and transparent legal and regulatory frameworks that promote access to ICTs
- provides the world community with authoritative analysis on the latest ICT trends and comparable ICT data worldwide
- facilitates access and use of Internet resources
- · works to build trust and confidence in the use of ICTs
- builds human capacity in all ICT-related areas
- · provides concentrated assistance to least developed countries and countries in special need
- assists Member States in disaster-preparedness and relief and provides technical, policy, regulatory and legal support in the area of emergency telecommunications
- provides support in climate change adaptation, e-waste reduction and e-disposal
- implements projects that foster digital inclusion by promoting ICT access and accessibility to disadvantaged groups and to rural and remote areas
- offers a global platform for the discussion of development priorities and strategies and for the adoption of action plans to guide the development work worldwide

Through its multi-pronged programmes, projects and activities, BDT supports the efforts of our membership to bridge the digital divide and extend the benefits of the information society to all.

### Membership

ITU-D has more than 300 sector members around the world, made up of telecommunication policy-makers and regulators, network operators, service providers, equipment manufacturers, hardware and software

developers, regional and international development organizations, research and training institutes and financing institutions.

#### **ITU-D Sector Members Portal**

The portal's aim is to showcase information on ITU-D Sector members and to strengthen communication between them and BDT. It provides them with an invaluable means to enhance their visibility and take advantage of networking opportunities, at no cost.

ITU-D offers excellent opportunities to network with policy makers, regulators and potential partners from industry as well as keep abreast of new opportunities for collaboration.

For more information: www.itu.int/ITU-D/membership/index.html

How much does it cost to be an ITU-D Sector Member? ITU Sector Members may choose their annual membership contribution, ranging from a maximum of 63'000 Swiss francs to a minimum of: CHF 7,950 Swiss francs

CHF 3,975 Swiss francs (for entities based in developing countries only)

ITU-D is fully committed to promoting ICT infrastructures, and services, supported by strong national backbones, to be universally available to all citizens in order to develop networked economies and information societies

### **ICT Infrastructure**

#### **Enhancing ICT infrastructure development**

ICT infrastructure plays an essential role in achieving the WSIS goals on development and connectivity. BDT assists the membership in maximizing the use of appropriate new technologies for the development of information and communication infrastructures. Its work covers:

- Broadband deployment
- Transition from analogue to digital broadcasting
- Assessment of traffic and demand
- Spectrum management and radio monitoring
- Interconnectivity, interoperability, network management, security, and quality of service standards for wired and wireless networks
- Mobile telecommunications
- Next-generation networks
- Rural and satellite telecommunications

### **ICT Applications**

#### e-applications for socio-economic development

ICTs provide an opportunity for developing countries to facilitate trade and economic development in general, as well as business development and job creation, especially for poor and marginalized populations, including women, indigenous peoples and persons with disabilities. ICT applications are also an important demand-side driver that can encourage the adoption of broadband services. BDT helps developing countries:

- To devise national strategic planning frameworks and associated toolkits for ICT applications and services
- To promote the development of a cross-domain mobile application framework to improve the delivery of valueadded services using mobile communications, such as mobile health and mobile banking
- To facilitate access to ICT-based government services
- To improve education and healthcare
- To enhance access to quality education and manage the environment (including the effects of climate change)
- To develop and implement, in collaboration with relevant stakeholders, the implementation of large-scale ICT applications and services

For more information: www.itu.int/ITU-D/cyb/app/index.html

BDT facilitates the development and the use of ICT applications to support sustainable development, in the fields of public administration, business, education and training, health, employment, environment, agriculture and science within the framework of national e-strategies BDT is assisting Member States and national regulatory authorities in developing an enabling environment that fosters a transparent legal and regulatory framework, to stimulate investment and promote universal, ubiquitous and affordable access to ICTs.

### **Enabling Environment** Designing sound policy and regulatory frameworks for the digital economy

A sustainable Information Society that ensures affordable and universal access to ICTs as well as creating and maintaining investment incentives for all market participants, rests on the creation and maintenance of an enabling environment. ITU-D assists Member States in developing an enabling environment including the development and implementation of national ICT policies and plans, the creation and adaptation of legal and regulatory frameworks, and the promotion of investment through effective financial mechanisms in the telecommunication/ICT sector.

- The annual Trends in Telecommunication Reform publication is a key part of our effort to explore and amplify the knowledge and experience of policy-makers and regulators in the ICT sector
- The annual Global Symposium for Regulators (GSR) provides a unique venue for regulators and policymakers to meet and exchange views and experiences
- The ICT Regulation Toolkit, an ITU and infoDev joint initiative, offers an online resource designed to address complex regulatory challenges emerging from a rapidly evolving ICT industry
- The Global Regulators' Exchange (G-REX) is a unique password-protected online forum for regulators and policy-makers to exchange information and share experiences and best practices
- The ITU ICT Eye portal is a unique one-stop shop for telecommunication/ICT data collection and dissemination, giving access to the latest trends in regulation and tariff policies as well as in the development of the ICT sector

### ICT Statistics Measuring the Information Society

With the growing recognition of ICTs as a driver for social development and economic growth, there is a need for reliable, comprehensive and comparable statistics to support government and industry decisions. ITU is recognized all over the world as the main source of internationally comparable data and statistics on telecommunication/ICT.

- BDT collects more than 100 statistical indicators from over 200 economies worldwide. The data are maintained in the World Telecommunication/ICT Indicators (WTI) database, which includes time series dating back to 1960. They are disseminated through the website (ICT Eye), printed publications (such as the Yearbook of Statistics), CD-ROM, and by electronic download
- Key flagship reports include the Measuring the Information Society Report and the World Telecommunication/ ICT Development Report; they feature the latest global and regional ICT trends and measure the magnitude of the digital divide through tools such as the ICT Development Index (IDI) and the ICT Price Basket
- International standards and methodologies on ICT statistics are being developed in close cooperation with other regional and international organizations, including the United Nations, Eurostat, the OECD, and the Partnership on Measuring ICT for Development. BDT contributes actively to the monitoring of internationally agreed development goals and targets, such as the Millennium Development Goals and the targets agreed at the World Summit on the Information Society
- BDT provides capacity building and technical assistance to Member States in the area of ICT measurement through training courses and hands-on manuals. The World Telecommunication/ICT Indicators Meeting (WTIM) is the main forum to discuss information society statistics at the global level

BUT plays a key role in enhancing the availability of comparable ICT data worldwide and in analyzing the latest ICT trends and sector developments, which enables policy makers and business leaders to make informed and strategic decisions.

For more information: www.itu.int/ict

BDT considers international public policy issues on internet as an important issue of ICT for Development, and is making available its solid expertise in capacity building and technical cooperation at the global level.

### **Internet related issues**

#### Facilitating access and use of Internet resources

Access to Internet and its resources has become a basic need for everyone, and developing countries risk being left behind due to lack of financial resources and human capacity.

Through its various programmes and activities BDT facilitates the development of international public policies and projects aimed at assisting Member States in making the best use of internet resources,

such as IP-based networks, including IPv6 as well as Top Level Domain Names.

The proper use of these key resources that can greatly contribute to enhancing social and economic development, allowing countries to exploit the potential of national and international exposure offered by Internet

### Cybersecurity

With the ever-expanding use of the Internet and the

through a holistic approach taking into account international cooperation principles and national and regional needs, within the framework of the ITU Global Cybersecurity Agenda (GCA)

essential step towards building national capabilities for dealing with cyberthreats, including:

- Supporting Member States' national and regional efforts to build capacity to protect against cyber threats/
- Facilitating the establishment of Cybersecurity capabilities and services in Member States through the strategic partnership with the International Multistakeholder Partnership Against Cyber Threats (IMPACT)
- Establishing organizational structures, such as Computer Incident Response Teams (CIRTs), to identify, manage and respond to cyber threats and cooperation mechanisms at the regional and international levels
- Contributing to the implementation of ITU's Child Online Protection initiative, with the cooperation and support of the membership as active partners/contributors

ITU-D considers the promotion of cybersecurity, and of international key priority, and is strongly committed, together with relevant partners worldwide. to achieving global

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For more information: www.itu.int/ITU-D/cyb/cybersecurity

#### ITU-D plays a pivotal role in providing assistance in human and institutional capacity building that improves skills to support the development and use of ICTs, taking advantage of the most current methods and means of delivery that leverage the use of ICTs.

### **Capacity building** Empowering Minds

Decision-makers need to make sure that the digital divide, which remains a key concern for developing countries, does not also become a knowledge divide.

Training and education delivered through ITU and its partners address a very wide scope of ICT-related topics — ranging from training for government policy makers and regulators, to professional business-focused curricula for senior ICT executives and managers, to specialized programmes for technical and operational staff.

The ITU Academy initiative pulls together the diverse education, training and information efforts of the ITU-D in order to develop a harmonized and

streamlined approach to capacity building, and to ensure that what gets delivered to the end-user is fully evaluated as to its quality and relevance. It includes a web-based portal that allows for a single access point to all ITU training activities, whether delivered face-to-face — or through instructor-led and self-paced e-learning.

Supporting the ITU Academy initiative are a number of front-line training partners including the ITU Centres of Excellence and Internet Training Centres — all key players in delivering education, training and information in the regions.

### Integrating Least Developed Countries (LDC) and Countries in Special Need in the World Economy

Least Developed Countries (LDCs), Small Island Developing States (SIDs), and Landlocked Developing Countries (LLDCs) face particular development challenges and require focused assistance from the international community that will lead to their integration into the world economy and hasten their pace towards achieving the Millennium Development Goals. BDT provides concentrated assistance to LDCs, SIDS, LLDCs to help them in the general development of their telecommunications sector. Assistance is provided to a small group of these countries on a biennial basis, while the rest of the countries in this group receive ad hoc assistance.

At the end of the two years, another group of countries are selected to benefit from this concentrated assistance. The priority areas include:

- The introduction of new technologies
- Rural telecommunication development
- Sector reform
- Cybersecurity and e-strategies
- human capacity development
- Emergency telecommunications and climate change adaptation
- Assistance in the reconstruction of telecommunications infrastructure in the aftermath of natural disasters and war

ITU-D is committed to integrating least developed countries and countries in special need into the world economy by providing focused, timely, and quality concentrated assistance in all areas of ICT development.

For more information: www.itu.int/ITU-D/ldc/index.phtml

BDT provides technical, policy, legal, and regulatory assistance to countries through the use of ICTs to save lives before, during, and after disasters strike.

### Emergency Telecommunications

#### **Saving Lives**

Emergency telecommunications play a critical role before, during, and after disasters strike. BDT provides assistance to Member States in:

- monitoring, detecting and predicting disasters
- designing National emergency telecommunications plans
- developing standard operating procedures
- · designing and setting up early warning systems
- developing business continuity and disaster recovery plans
- · setting up telemedicine systems for delivering healthcare in emergencies through interactive video
- using geographical information systems to produce high-resolution maps
- · deploying wireless based telecommunications systems in the immediate aftermath of disasters
- · rehabilitation of telecommunication networks when networks are disrupted or destroyed

When a country is hit by a disaster, BDT is ready to provide immediate assistance through the deployment of hybrid of information and communication technologies at no expense to the beneficiary country.

## Climate change and the Environment

Climate change is one of the biggest challenges of our time and holds the key to the sustainable socio economic development of countries.

BDT assists countries to use information and communication technologies to:

- Monitor, mitigate and adapt to climate change
- Design adaptation frameworks or national climate adaptation plans
- Mobilize resources under the ongoing global effort of the Climate Change Fund
- Design tools and databases for handling the challenges of e-waste. The aim is to reduce e-waste through smart procurement, re-use of still functioning electronic equipment, and recycling those components that cannot be repaired
- Assist countries to develop and implement legal and regulatory instruments in e-climate change and e-waste
  management

BDT is contributing to the global efforts to assist countries adapt to climate change, mitigate its effects and to protect the environment through appropriate handling and disposal of e-waste.

For more information: www.itu.int/itu-d/climatechange

BDT has initiated, during the period 2007-2010, 70 new projects amounting to over 40 million US dollars

### **Project Management** Responding to Country Needs

BDT has long-standing years of experience in the implementation of small and large scale ICT projects. These projects cover the domains of communication infrastructure development, capacity building, policies and regulation, e-services, emergency telecommunications, etc.

BDT has in-house expertise in the development of relevant project, building of innovative partnerships for effective resource mobilization, project implementation, monitoring and evaluation. With a worldwide network of dedicated experts, BDT is well-positioned to deliver ICT for development projects at national, regional and global levels to help bridge the digital gap.

BDT current portfolio includes regional initiatives endorsed by the World Telecommunication Development Conference (WTDC) and other largescale initiatives.

BDT welcomes the opportunity to work with all stakeholders to deploy sustainable projects.



### Providing a global platform on CI Development Issues World Telecommunication Development Conferences

Held every four years, the World Telecommunication Development Conference (WTDC) is a high-level platform for Member States to development priorities, strategies and action plans to guide the work of ITU-D over the next four-year period. Before every WTDC, preparatory conferences are held in each of the ITU-D Regions. The last WTDC was held in Hyderabad, India, in 2010 and established the Hyderabad Action Plan. In between World Conferences the Telecommunication Development Advisory Group (TDAG) advises the Director of the BDT on the implementation of the Action Plan.

#### **Study Groups**

ITU-D constitutes one of the most important global platforms on ICT development which contribute to the achievement of the WSIS goals and the Information Society

ITU-D study groups deal with specific task-oriented telecommunication questions of priority to developing countries, taking into consideration the ITU strategic plan and goals for 2012-2015, and

prepare relevant outputs in the form of reports, guidelines and/or Recommendations for the development of telecommunications/information and communication technologies (ICTs).

- ITU-D has two Study Groups, providing a neutral forum for governments and industry to address priority issues for the ICT Sector.
- Study Group 1 addresses issues related to the enabling environment, cybersecurity, ICT applications and Internet-related issues
- Study Group 2 addresses issues related to information and communication infrastructure and technology development, emergency telecommunications and climate change adaptation

Each study group considers all aspects related to the issue and directly links their work to the various ITU-D programmes to create synergies that benefit the membership both in terms of activities, resources and expertise.

### Responding to Country Needs

With a global membership of governments, industry, international and regional organizations, and academic and financial institutions, ITU is a catalyst for ICTrelated public-private partnerships.

BDT engages industry along with governments and other partners to implement important projects. These public-private partnerships yield innovative solutions, demonstrating that new technologies, sound business models and private sector expertise and financial capacities can make a major contribution towards global development goals.

Each year, BDT also organizes the Global Industry Leaders Forum along with the Global Symposium for Regulators to provide a neutral platform for ITU-D Sector Members to share their views with policy makers and regulators on major issues facing the ICT sector.

### **Fostering Innovation**

We believe in encouraging a culture of innovation in the ITU-D. Constantly examining the BDT's activities under the lense of how we can innovate our products and services forces us to critically consider our competitive position amongst ICT development agencies and motivates us to pursue new opportunities for improvement.

The growing importance of innovation is recognized worldwide. Innovation is essential if countries and firms are to recover from the global economic downturn and thrive in today's highly competitive and connected global economy. Innovation is a powerful engine for development and for addressing social and economic challenges.

We believe in the power of innovation because we are passionate about tackling the challenges that matter most to our members and, more broadly, to the world. Innovative broadband-fueled services such as m payments, m-health and m education can be literally "life-changing" to individuals, communities and societies at large. We consider that access to ICTs can empower hundreds of millions of people in developing countries to directly enhance their own social and economic well-being.

So our mission is not just about connectivity for connectivity's sake. Rather, we want to see innovative uses of ICTs that fundamentally improve people's lives for the better. That's why we're working with our public and private sector partners to promote the important role of innovation in national development activities.

**Office of the Director Telecommunication Development Bureau (BDT)** Place des Nations CH-1211 Geneva 20 Email: bdtdirector@itu.int Tel.: +41 22 730 5035/5435

Infrastructure Enabling **Environmnet and E-Applications Department (IEE)** Email: bdtiee@itu.int Tel.: +41 22 730 5421 Fax: +41 22 730 5484

Fax.: +41 22 730 5484

#### **Africa**

#### **Ethiopia**

#### International Telecommunication Union (ITU)

**Regional Office** P.O. Box 60 005 Gambia Rd. Leghar ETC Bldg 3rd Floor Addis Ababa - Ethiopia E-mail: itu-addis@itu.int +251 11 551 49 77 Tel ·

Tel.: +251 11 551 48 55 +251 11 551 83 28 Tel.: Fax.: +251 11 551 72 99

#### Americas

#### Brazil

#### **International Telecommunication** Union (ITU) **Regional Office**

SAUS Quadra 06 Bloco "E" 11 andar – Ala Sul Ed. Luis Eduardo Magalhães (AnaTel.) -CEP 70070-940 - Brasilia - DF - Brasil E-mail: itubrasilia@itu.int +55 61 2312 2730 Tel.: +55 61 2312 2733

Tel.:  $+55\,61\,2312\,2735$ Tel· Tel.: +55 61 2312 2736 +55 61 2312 2738 Fax ·

#### Arab States

#### Egypt

#### International Telecommunication Union (ITU) **Regional Office**

c/o National Telecommunications Institute Bldg (B 147) Smart Village – Km 28 Cairo – Alexandria Desert Road 6th October Governorate - Egypt E-mail: itucairo@itu.int +20 2 35 37 17 77 Tel · +20 2 35 37 18 88 Fax.:

#### Europe

Switzerland International Telecommunication Union (ITU) **Europe Unit EUR Telecommunication Development Bureau BDT** Place des Nations CH-1211 Geneva 20 - Switzerland E-mail: eurregion@itu.int +41 22 730 5111 Tel.:

**Deputy to the Director** and Administration and Operations **Coordination Department (DDR)** Email: bdtddr@itu.int Tel.: +41 22 730 5784 Fax: +41 22 730 5484

#### Cameroon

#### Union internationale des télécommunications (UIT) Bureau de zone Immeuble CAMPOST, 3ème étage Boulevard du 20 mai Boîte postale 11017 Yaoundé – Cameroun

E-mail: itu-yaounde@itu.int Tel.: + 237 22 22 92 92 + 237 22 22 92 91 Tel.: Fax.: + 237 22 22 92 97

#### **Barbados**

#### International Telecommunication Union (ITU) **Area Office** United Nations House Marine Gardens Hastings - Christ Church P.O. Box 1047 Bridgetown - Barbados E-mail: itubridgetown@itu.int Tel · +1 246 431 0343/4 +1 246 437 7403 Fax ·

Asia and the Pacific

89/2 Chaengwattana Road, Laksi

Bangkok 10210 - Thailand

Bangkok 10210, Thailand

P.O. Box 178, Laksi Post Office

E-mail: itubangkok@itu.int

+66 2 574 8565/9

+6625749326/7

+66 2 574 9328

International Telecommunication

Thailand

Union (ITU)

**Regional Office** 

3rd Floor Building 6,

TOT Public Co., Ltd

Mailing address:

Tel ·

Tel ·

Fax.:

+41 22 730 5484 Fax:

#### **Senegal**

#### Union internationale des télécommunications (UIT) Bureau de zone Immeuble Fayçal, 4ème Etage 19, Rue Parchappe x Amadou Assane Ndove

Boîte postale 50202 Dakar RP Dakar – Sénégal E-mail: itu-dakar@itu.int +221 33 849 77 20 Tel.: +221 33 822 80 13 Fax.:

#### Chile

Unión Internacional de **Telecomunicaciones (UIT)** Oficina de Representación de Área Merced 753, Piso 4 Casilla 50484 - Plaza de Armas Santiago de Chile - Chile E-mail: itusantiago@itu.int Tel.: +56 2 632 6134/6147 Fax.: +56 2 632 6154

#### Indonesia

#### International Telecommunication Union (ITU) **Area Office** Sapta Pesona Building, 13th floor JI. Merdeka Barat No. 17 Jakarta 10110 – Indonesia Mailing address: c/o UNDP - P.O. Box 2338 Jakarta - Indonesia E-mail: itujakarta@itu.int +62 21 381 35 72 Tel · +62 21 380 23 22 Tel · +62213802324Tel · +62 21 389 05 521 Fax.:

#### Innovation and Partnership **Department (IP)** Email: bdtip@itu.int +41 22 730 5900 Tel.: Fax: +41 22 730 5484

#### Zimbabwe

**International Telecommunication** Union (ITU) **Area Office** TelOne Centre for Learning Corner Samora Machel and Hampton Road P.O. Box BE 792 Belvedere Harare, Zimbabwe E-mail: itu-harare@itu.int +263 4 77 59 41 Tel· Tel.: +263 4 77 59 39Fax. +263 4 77 12 57

#### **Honduras**

Unión Internacional de **Telecomunicaciones (UIT)** Oficina de Representación de Área Colonia Palmira, Avenida Brasil Edificio COMTELCA/UIT 4 Piso P.O. Box 976 Tegucigalpa - Honduras E-mail: itutegucigalpa@itu.int +504 2 201 074 Tel.: +504 2 201 075 Fax.

#### **CIS** countries

#### **Russian Federation** International Telecommunication Union (ITU) Area Office

4, building 1 Sergiy Radonezhsky Str. Moscow 105120 **Russian Federation** Mailing address: P.O. Box 25 - Moscow 105120 **Russian Federation** E-mail: itumoskow@itu.int Tel.: +7 495 926 60 70 +7 495 926 60 73 Fax.

#### Project Support and Knowledge Management Department (PKM) Email: bdtpkm@itu.int +41 22 730 5447 Tel.:



International Telecommunication Union (ITU) Place des Nations 1211 Geneva 20 - Switzerland www.itu.int/itu-d

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