ITU-T

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU **D.170**Supplement 2
(05/2010)

SERIES D: GENERAL TARIFF PRINCIPLES

General tariff principles – Drawing up and exchange of international telephone and telex accounts

Monthly telephone and telex accounts

Supplement 2 – Dispute process guidelines

Recommendation ITU-T D.170 - Supplement 2



ITU-T D-SERIES RECOMMENDATIONS

GENERAL TARIFF PRINCIPLES

TERMS AND DEFINITIONS	D.0
GENERAL TARIFF PRINCIPLES	
Private leased telecommunication facilities	D.1-D.9
Tariff principles applying to data communication services over dedicated public data networks	D.10-D.39
Charging and accounting in the international public telegram service	D.40-D.44
Charging and accounting in the international telemessage service	D.45-D.49
Principles applicable to GII-Internet	D.50-D.59
Charging and accounting in the international telex service	D.60-D.69
Charging and accounting in the international facsimile service	D.70-D.75
Charging and accounting in the international videotex service	D.76-D.79
Charging and accounting in the international phototelegraph service	D.80-D.89
Charging and accounting in the mobile services	D.90-D.99
Charging and accounting in the international telephone service	D.100-D.159
Drawing up and exchange of international telephone and telex accounts	D.160-D.179
International sound- and television-programme transmissions	D.180-D.184
Charging and accounting for international satellite services	D.185-D.189
Transmission of monthly international accounting information	D.190-D.191
Service and privilege telecommunications	D.192-D.195
Settlement of international telecommunication balances of accounts	D.196-D.209
Charging and accounting principles for international telecommunication services provided over the ISDN	D.210-D.269
Charging and accounting principles for next generation networks (NGN)	D.270-D.279
Charging and accounting principles for universal personal telecommunication	D.280-D.284
Charging and accounting principles for intelligent network supported services	D.285-D.299
RECOMMENDATIONS FOR REGIONAL APPLICATION	
Recommendations applicable in Europe and the Mediterranean Basin	D.300-D.399
Recommendations applicable in Latin America	D.400-D.499
Recommendations applicable in Asia and Oceania	D.500-D.599
Recommendations applicable to the African Region	D.600-D.699

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T D.170

Monthly telephone and telex accounts

Supplement 2

Dispute process guidelines

Summary

Supplement 2 to Recommendation ITU-T D.170 is intended to present guidelines for the process and proposition of dispute forms for international settlements. It may help to simplify and assist telecommunication carriers in proper and fast resolution of any kind of financial dispute. The exact nature of the dispute resolution should be agreed upon the bilateral arrangements between the carriers concerned.

This supplement describes the whole process, details possible reasons and sources of financial disputes and advises how to investigate and handle them.

This supplement is intended to provide carriers with information regarding possible procedures and example forms for use in the dispute resolution process. These processes may help save time and human labour, as well as improve bilateral business relations between partners.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.270	1972-12-15	
2.0	ITU-T E.270	1976-10-08	
3.0	ITU-T D.170/E.270	1980-11-21	
4.0	ITU-T D.170/E.270	1984-10-19	
5.0	ITU-T D.170/E.270	1988-11-25	
6.0	ITU-T D.170	1993-03-12	III
7.0	ITU-T D.170	1995-03-20	3
8.0	ITU-T D.170	1998-06-12	3
9.0	ITU-T D.170	2006-06-27	3
10.0	ITU-T D.170	2010-05-21	3
10.1	ITU-T D.170 Suppl.1	2010-05-21	3
10.2	ITU-T D.170 Suppl.2	2010-05-21	3

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this publication is voluntary. However, the publication may contain certain mandatory provisions (to ensure e.g., interoperability or applicability) and compliance with the publication is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the publication is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this publication may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the publication development process.

As of the date of approval of this publication, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this publication. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

© ITU 2010

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

CONTENTS

			Page
1	Scope		1
2	Refere	ences	1
3	Defini	tions	1
4	Abbre	viations and acronyms	1
5	What i	is a dispute?	1
	5.1	Benefits of agreeing on the dispute process	2
6	Disput	tes	2
	6.1	Incoming dispute process	2
	6.2	Dispute investigation	2
	6.3	Required dispute information	3
	6.4	Possible dispute causes	4
Anne	x A – E	xample 1: Volume/rate dispute form	5
Anne	x B – Ex	xample 2: Volume/rate dispute form	6
Anne	х С – Ех	xample 3: CDR file layout and example	7

Recommendation ITU-T D.170

Monthly telephone and telex accounts

Supplement 2

Dispute process guidelines

1 Scope

The scope of this supplement is to describe proposed format and data to provide that could be used between carriers who enter into a dispute related to a specific declaration or invoice.

In order to provide a level of consistency when submitting a dispute, the information contained in this supplement proposes the use of certain formats and information to be provided on the dispute form.

2 References

[ITU-T D.170] Recommendation ITU-T D.170 (2010), Monthly telephone and telex accounts.

3 Definitions

This supplement defines the following terms:

- **3.1 declaration**: A declaration is what Carrier "A" sends to Carrier "B" to declare what Carrier "A" owes Carrier "B".
- **3.2 dispute**: A dispute is what Carrier "A" receives from Carrier "B" to indicate there is a volume or rate discrepancy.
- **3.3 invoice**: An invoice is what Carrier "B" sends to Carrier "A" to bill Carrier "A" for what it owes Carrier "B".
- **3.4 dispute**: A dispute is what Carrier "A" sends to Carrier "B" to indicate they found a volume or rate discrepancy between the invoice and what Carrier "A" expected to see.

This supplement provides information on both kinds of disputes.

4 Abbreviations and acronyms

This supplement uses the following abbreviations and acronyms:

CDR Call Detail Record

EDI Electronic Data Interchange

5 What is a dispute?

For the purposes of this supplement, a dispute is defined as a discrepancy between what a carrier expects to receive from another carrier (per your system(s)) and the actual invoice or declaration.

NOTE – Volume discrepancies can include number of calls and/or minutes.

5.1 Benefits of agreeing on the dispute process

The following is a non-exhaustive list of benefits associated with using an agreed upon, common dispute form and process:

- Consistency amongst carriers when initiating a dispute;
- Ensuring all required information is provided for accurate investigation of dispute;
- Efficiency and timeliness when resolving a dispute.

6 Disputes

This clause concerns disputes, defined as: "A dispute indicates a rate or volume discrepancy between the invoice/declaration received and rates or volumes expected (per carriers systems) for a given traffic period".

6.1 Incoming dispute process

Upon receiving a volume or rate dispute, the following steps could be taken:

Step	Action
1	A dispute is received and passed on to the appropriate person (carrier account manager) responsible for settling that particular account.
2	The dispute is reviewed to ensure it contains the information required to investigate the dispute. (This should be the necessary information identified on the dispute form within the examples shown in Annexes A and B, or as listed in clause 6.3, with the associated rate advice, if the dispute is for a dial code or a rate issue.)
3	If the required information is contained in the form, follow normal dispute tracking and investigation process (see clauses below for the investigative procedures). If the required information is not supplied, go to step 4.
4	If the required information is not contained in the dispute form, send the carrier an e-mail indicating that their dispute has been received, but cannot be addressed without all the required information. Attach the incoming volume/rate dispute form to the e-mail. (One may not want to enter dispute tracking data until all the required information is received.)

6.2 Dispute investigation

The following are some activities that can be performed to ensure all areas for resolving a dispute have been investigated.

General investigation

Verify any previous dispute issues and their resolution (this may give a hint as to what the root cause could be) and check some standard questions that can be run through in order to hopefully prevent having to analyze the CDRs, typically contractual things such as checking that the time zone is as expected, the call rounding applied, the minimum call duration, whether a special swap deal is in place, etc.

For volume disputes

- For volume disputes, call detail records (CDRs) can be used to perform the dispute investigation, call by call. CDRs from the other carrier are also needed to perform comparisons. CDRs can be used to:
 - Produce sums of the call volume, actual minutes and billed minutes from the CDR and the invoice the carrier sent;

- Ensure that the carrier's CDRs match the expected volume as per the invoice they sent;
- Compare CDRs by date especially the first and the last day of the billing period;
- Verify that both parties' CDRs are expressed in the same time zone.

For rate and/or dial code disputes

- Validate contract terms and conditions (rates, time zones, minute increments/rounding, peak/off-peak pricing, etc.);
- Verify that the system reference data is up to date (i.e., dial code information, etc.);
- Confirm that the invoice totals match the data entry (manual, EDI or scanned);
- Re-validate volume commitments, thresholds and/or discounts;
- Check for any rate change notices that may be in effect, but are not on the invoice yet.

6.3 Required dispute information

In order to investigate and resolve a dispute, the following information could be sent by the carrier sending the dispute:

- Carrier's name, contact name/phone;
- Current date;
- Service type (bilateral-telephone, hubbing, refile, etc.);
- Original rate advice (in case of a rate or dial code discrepancy);
- For volume discrepancy:
 - Service date (traffic period);
 - Originating country/carrier;
 - Transit/via carrier (if applicable);
 - Terminating country/carrier;
 - Terminating region (city, mobile, etc.);
 - Product/traffic type:
 - Sending carrier per minute rate;
 - Receiving carrier per minute rate;
 - Sending carrier recorded minutes;
 - Receiving carrier billed/declared minutes;
 - Amount of minutes discrepancy;
 - Currency type (SDR, USD, etc.);
- For rate discrepancy:
 - Service date (traffic period);
 - Originating country/carrier;
 - Transit/via carrier (if applicable);
 - Terminating country/carrier;
 - Terminating region (city, mobile, etc.);
 - Product/traffic type;
 - Sending carrier per minute rate;
 - Receiving carrier per minute rate;
 - Amount of per minute rate discrepancy;

- Sending carrier per call rate;
- Receiving carrier per call rate;
- Amount of per call rate discrepancy;
- Currency type (SDRs, USD, etc.);
- For dial code:
 - Service date (traffic period);
 - Originating country/carrier;
 - Transit/via carrier (if applicable);
 - Terminating country/carrier;
 - Terminating region (city, mobile, etc.);
 - Product/traffic type;
 - Dial code.

6.4 Possible dispute causes

The following table lists some possible causes and descriptions for why disputes may arise. In the table below, the assumption is that Carrier "B" is the sender of the dispute, and Carrier "A" receives it.

Cause	Description
Rate discrepancy	Carrier "A" invoice shows a different rate than what Carrier "B" expected – rates may not have been updated in the system.
Dial codes	Carrier "A" charges for number ranges (dial codes) in a manner that does not match the dial code breakout previously advised to Carrier "B".
Billing time zone	The invoice covers a different time zone period than the one expected.
Duration rounding	Using a call duration rounding different to what was contracted.
Minimum duration	Using a minimum call duration different to what was contracted.
Missing data	Call data not recorded in the switch or captured in the billing system.
Long duration	Carrier "A" may record a transaction as two or more calls, while Carrier "B" records as 1. (Overall minutes should be the same but call counts may differ, and the multiple records may span billing periods.)
Answer status	Unanswered calls being treated as answered – this could be due to network signalling issues or a billing system error.
Route to wrong carrier	Route could be assigned to a wrong carrier in the system.
Looping	One call may be recorded as two because it has been sent twice on two different circuits, back through the originator.
Time handling	Possible billing system errors made with time duration conversions and subsequent use of that converted data.
Multiple switches	When working with multiple switches (same country or across countries), call matching must be accurate to ensure that one call is not interpreted as multiple individual calls.
Call end status (run-away duration)	For IP networks especially: Carrier "A" call duration is significantly longer than Carrier "B" expects, particularly as a result of Carrier "A" not receiving or not detecting a call-end signal.

Annex A

Example 1: Volume/rate dispute form

This form is to be used for all services (bilateral, hubbing, and transit)

From (country/c	carrier):								Date:			
Contact name/p	hone:								Service:			
VOLUME DISC	CREPANCY:											
Service date(s) (YYYYMM)	Originating country/ carrier	*Transit/ via carrier	Terminating country/ carrier	Terminating region (city, mobile, etc.)	Product/ traffic type	[Carrier A] per minute rate (A)	[Carrier B] per minute rate (B)	[Carrier A] recorded minutes (C)	[Carrier B] billed/ declared minutes (D)	Amount of minutes- discrepancy (C – D)	Curre	ncy
RATE DISCRE	PANCY:											
Service date(s) (YYYYMM)	Originating country/ carrier	*Transit/ via carrier	Terminating country/ carrier	Terminating region (city, mobile, etc.)	Product/ traffic type	[Carrier A] per minute rate (A)	[Carrier B] per minute rate (B)	Amount of per minute rate- discrepancy (A – B)	[Carrier A] per call rate (C)	[Carrier B] per call rate (D)	Amount of per call rate- discrepancy (C – D)	Currenc
* Column used	only for transit/	via traffic.										
Comments:												

Annex B

Example 2: Volume/rate dispute form

[Carrier in dispute]

Period in dispute [From/to date range]

Dispute details:

	Carrier A	Carrier A	Carrier A	Carrier B	Carrier B	Carrier B	Minutes			
Region	billed min.	billed rate	billed amt.	exp'd min	exp'd rate	amount	percentage	Disc	Discrepancy	Comment/issue
	<u> </u>	l			-	1	1			Enter reason for
	73'377.0	0.0120	USD 4'549.37	64'097.9	0.0120	USD 3'974.09	102.2%	USD	(575.28)	dispute
	225'084.4	0.0130	USD 14'180.32	217'560.5	0.0130	USD 13'706.17	102.9%	USD	(474.15)	
City X	21'465.7	0.0180	USD 1'245.01	19'542.2	0.0180	USD 1'133.42	109.8%	USD	(111.59)	
City Y	21.1	0.0121	USD 1.31				#DIV/0!	USD	(1.31)	
City Z	82'143.7	0.0120	USD 5'092.91	75'633.9	0.0120	USD 4'689.16	108.6%	USD	(403.75)	
	402'091.9		USD 25'068.92	376'834.6		USD 23'502.84	106.7%	USD	(1'566.08)	-
										Enter reason for
	44'801.3	0.0145	USD 10'976.32	43'173.6	0.0145	USD 10'577.72	103.8%	USD	(398.60)	dispute
	44'801.3		USD 10'976.32	43'173.6		USD 10'577.72	103.8%	USD	(398.60)	
	521676.2	0.5005	1100 101700 67	501001.0	0.5005	1100 101422 00	102.10/	LICD	(27.5.70)	Enter reason for
		0.5995			0.5995					dispute -
	53'676.3		USD 10'708.67	52'291.2		USD 10'432.88	102.6%	USD	(275.79)	
										_
						Total		USD	(2'240.47)	_
	City Y	Region billed min. 73'377.0 225'084.4 City X 21'465.7 City Y 21.1 City Z 82'143.7 402'091.9	Region billed min. billed rate 73'377.0 0.0120 225'084.4 0.0130 City X 21'465.7 0.0180 City Y 21.1 0.0121 City Z 82'143.7 0.0120 402'091.9 44'801.3 0.0145 44'801.3 53'676.3 0.5995	Region billed min. billed rate billed amt. 73'377.0 0.0120 USD 4'549.37 225'084.4 0.0130 USD 14'180.32 City X 21'465.7 0.0180 USD 1'245.01 City Y 21.1 0.0121 USD 1.31 City Z 82'143.7 0.0120 USD 5'092.91 402'091.9 USD 25'068.92 44'801.3 0.0145 USD 10'976.32 44'801.3 USD 10'976.32	Region billed min. billed rate billed amt. exp'd min 73'377.0 0.0120 USD 4'549.37 64'097.9 225'084.4 0.0130 USD 14'180.32 217'560.5 City X 21'465.7 0.0180 USD 1'245.01 19'542.2 City Y 21.1 0.0121 USD 1.31 1.31 City Z 82'143.7 0.0120 USD 5'092.91 75'633.9 402'091.9 USD 25'068.92 376'834.6 44'801.3 0.0145 USD 10'976.32 43'173.6 44'801.3 USD 10'976.32 43'173.6 53'676.3 0.5995 USD 10'708.67 52'291.2	Region billed min. billed rate billed amt. exp'd min exp'd rate 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 City Y 21.1 0.0121 USD 1.31	Region billed min. billed rate billed amt. exp'd min exp'd rate amount 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 USD 3'974.09 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 USD 13'706.17 City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 USD 1'133.42 City Y 21.1 0.0121 USD 1.31	Region billed min. billed rate billed amt. exp'd min exp'd rate amount percentage 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 USD 3'974.09 102.2% 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 USD 13'706.17 102.9% City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 USD 1'133.42 109.8% City Y 21.1 0.0121 USD 1.31 TOTAL TOTAL #DIV/0! City Z 82'143.7 0.0120 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% 402'091.9 USD 25'068.92 376'834.6 USD 10'577.72 103.8% 44'801.3 0.0145 USD 10'976.32 43'173.6 0.0145 USD 10'577.72 103.8% 44'801.3 0.5995 USD 10'976.32 43'173.6 0.5995 USD 10'577.72 103.8% 53'676.3 0.5995 USD 10'708.67 52'291.2 0.5995 USD 10'432.88 103.1	Region billed min. billed rate billed amt. exp'd min exp'd rate amount percentage Disc 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 USD 3'974.09 102.2% USD 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 USD 13'706.17 102.9% USD City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 USD 1'133.42 109.8% USD City Y 21.1 0.0121 USD 1.31 #DIV/0! USD #DIV/0! USD City Z 82'143.7 0.0120 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% USD 402'091.9 USD 25'068.92 376'834.6 USD 23'502.84 106.7% USD 44'801.3 0.0145 USD 10'976.32 43'173.6 0.0145 USD 10'577.72 103.8% USD 53'676.3 0.5995 USD 10'708.67 52'291.2 0.5995 USD 10'432.88 103.1% USD <td>Region billed min. billed rate billed amt. exp'd min exp'd rate amount percentage Discrepancy 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 USD 3'974.09 102.2% USD (575.28) 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 USD 13'706.17 102.9% USD (474.15) City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 USD 1'133.42 109.8% USD (111.59) City X 21.1 0.0121 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% USD (131) City Z 82'143.7 0.0120 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% USD (403.75) 402'091.9 USD 25'068.92 376'834.6 USD 23'502.84 106.7% USD (1'566.08) 44'801.3 0.0145 USD 10'976.32 43'173.6 0.0145 USD 10'577.72 103.8% USD (398.60) 44'801.3 0.5995 USD 10'708.67 52'291.2</td>	Region billed min. billed rate billed amt. exp'd min exp'd rate amount percentage Discrepancy 73'377.0 0.0120 USD 4'549.37 64'097.9 0.0120 USD 3'974.09 102.2% USD (575.28) 225'084.4 0.0130 USD 14'180.32 217'560.5 0.0130 USD 13'706.17 102.9% USD (474.15) City X 21'465.7 0.0180 USD 1'245.01 19'542.2 0.0180 USD 1'133.42 109.8% USD (111.59) City X 21.1 0.0121 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% USD (131) City Z 82'143.7 0.0120 USD 5'092.91 75'633.9 0.0120 USD 4'689.16 108.6% USD (403.75) 402'091.9 USD 25'068.92 376'834.6 USD 23'502.84 106.7% USD (1'566.08) 44'801.3 0.0145 USD 10'976.32 43'173.6 0.0145 USD 10'577.72 103.8% USD (398.60) 44'801.3 0.5995 USD 10'708.67 52'291.2

Annex C

Example 3: CDR file layout and example

IOLE. A CONTI	ile is a fixed-width ASC	CII format with o	one CDR per line	. Each line is fo	ollowed by a ca	rriage return a	and a line-feed.						
tart	1	9	15	35	55	61	67	75	83	91	99	105	
osition:	8	6	20	20	6	6	8	8	8	8	6	2	
Name:	Answer date	Answer time		Called number	Actual duration	Billed duration	Incoming route name	Incoming circuit	Sequence number	UTC answer date	UTC answer		
ormat:	YYYYMMDD	HHMMSS	Char 20	Char 20	SSSSSS	SSSSS	Char 8	00000000	00000000	YYYYMMDD	HHMMSS	Char 2	
Description:	Date call was answered in time zone used to generate invoice.	time zone	Destination country.	Telephone number called. Full number including country code.	Unrounded call duration in seconds. Right justified, padded with zeros.	Rounded billable call duration in seconds. Right justified, padded with zeros.	Incoming character label of route.	Incoming Circuit number.	Exchange sequence number.	Date call was answered in UTC (GMT).	UTC (GMT).	Standard call (DD) or reverse class call (80, 8B, 8T).	
		'	'	•					'		Total = 106 c	har + CR + LF	
DR file exam	ple:												
0050621092355	5BRAZIL Sao Paulo	555122256000		BLABABI000242									
0050621092355 0050621215856	5BRAZIL Sao Paulo 6BRAZIL Sao Paulo	555122267113	000046000046	LABABI000242	4720050621215	856DD							
0050621092355 0050621215856 0050622184350	5BRAZIL Sao Paulo 6BRAZIL Sao Paulo 0PHILLIPINES Mobile (555122267113	000046000046 000135000135		4720050621215 6120050622005	350DD							
0050621092355 0050621215856 0050622184350	5BRAZIL Sao Paulo 6BRAZIL Sao Paulo 0PHILLIPINES Mobile (555122267113 630358763288	000046000046 000135000135	LABABI000242 LABABI000645	4720050621215 6120050622005	350DD							
0050621092355 0050621215856 0050622184350	5BRAZIL Sao Paulo 6BRAZIL Sao Paulo 0PHILLIPINES Mobile (555122267113 630358763288	000046000046 000135000135	LABABI000242 LABABI000645	4720050621215 6120050622005	350DD							
0050621215856 0050622184350	5BRAZIL Sao Paulo 6BRAZIL Sao Paulo 0PHILLIPINES Mobile (555122267113 630358763288	000046000046 000135000135	LABABI000242 LABABI000645	4720050621215 6120050622005	350DD							

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems