Work of Study Group 3

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Seminar on cost and tariffs,
Mexico, 21 – 22 July 2003

Note: The views expressed in this presentation are those of the author and do not necessarily reflect the opinions of the ITU or its membership.

Agenda

- **Is SG3 different from other SGs?**
  - ⇨ **What is SG3 doing**
  - ⇨ **SG3 is unique**
  - ⇨ **But not different**
- **What are the hot issues studied in SG3?**
  - ⇨ **For Int'l Telephone services**
  - ⇨ **For INTERNET**
  - ⇨ **For Mobile Termination Service**
- **What are the concerns of administrations and how do they react?**

International Telecommunication Union

- **In the ITU there are 3 Sectors (Radiocommunication,Telecommunication and Development) + General Secretariat**
- **In the ITU-T, there are 14 Study Groups and TSB to support the works of SGs**
- **SG3 is in charge of developing tariff principles, including telecommunication related ecomomic and policy related issues**
- **SG3 has 4 Questions to study, has two Working Parties and several Rapporteur Groups**

ITU-T Activities

ITU-T Study Group 3 (Study Period 2001 - 2004)

- - Select an ITU-T Activity - -

Tariff and accounting principles including related telecommunication economic and policy issues

Contact for Study Group 3: tsbsg3@itu.int

TIES account required

Information

- Area of Responsibility
- Study Group Structure
- Study Group Management Team
- List of Rapporteurs
- List of Questions under Study
- Standardization Areas and Domains
- Work Programme
- Last meeting results concerning Recommendations

Meeting Information

- Schedule of Meetings
- Meeting Sessions Room Allocation
- Rapporteur Meetings
- Hotel booking at preferential ITU rates

Special Projects and Issues

- Position of countries on Call Back

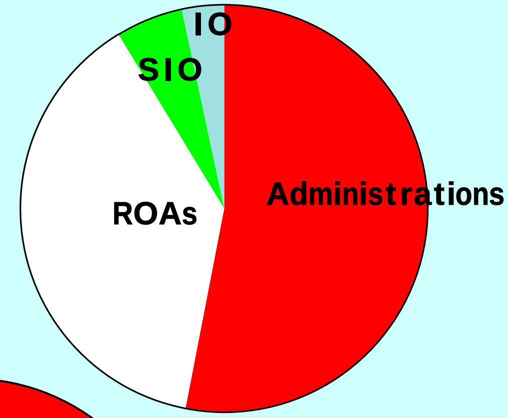
Documents

- Circulars related to SG 3
- Collective Letters
- Contributions
- Delayed Contributions
- Reports

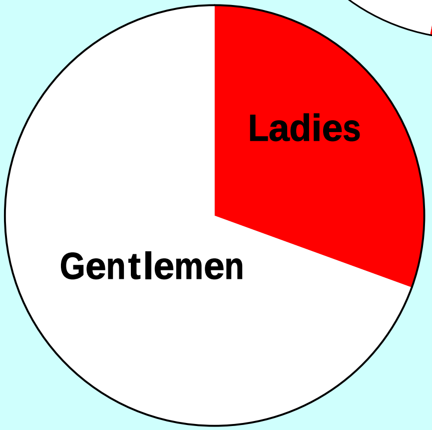
Documents by meetings

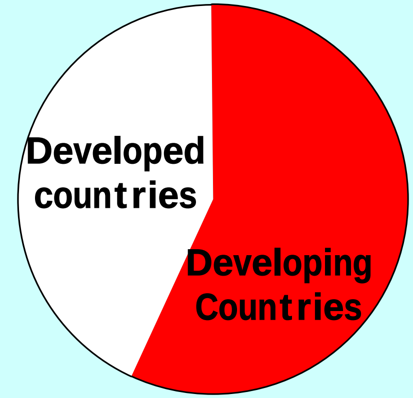
- Recently posted - Search Meeting Documents
- Next Meeting: Geneva, 17-21 November 2003 [All documents - Delayed Contributions - Temporary Documents]
- Last Meeting: Geneva, 16-20 June 2003 [All documents - Delayed Contributions - Temporary Documents]
- All Meetings...

SG3 is unique



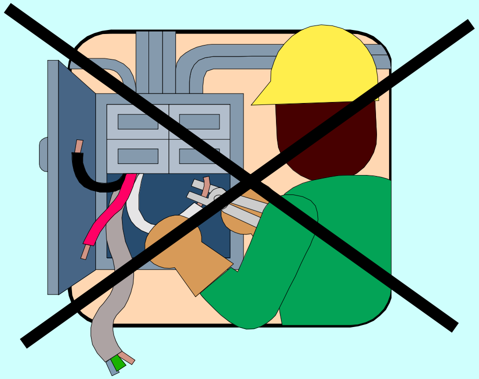
- Because of its composition





Dealing purely with non-technical standards and …

- Tariff/regulatory/Policy related issues

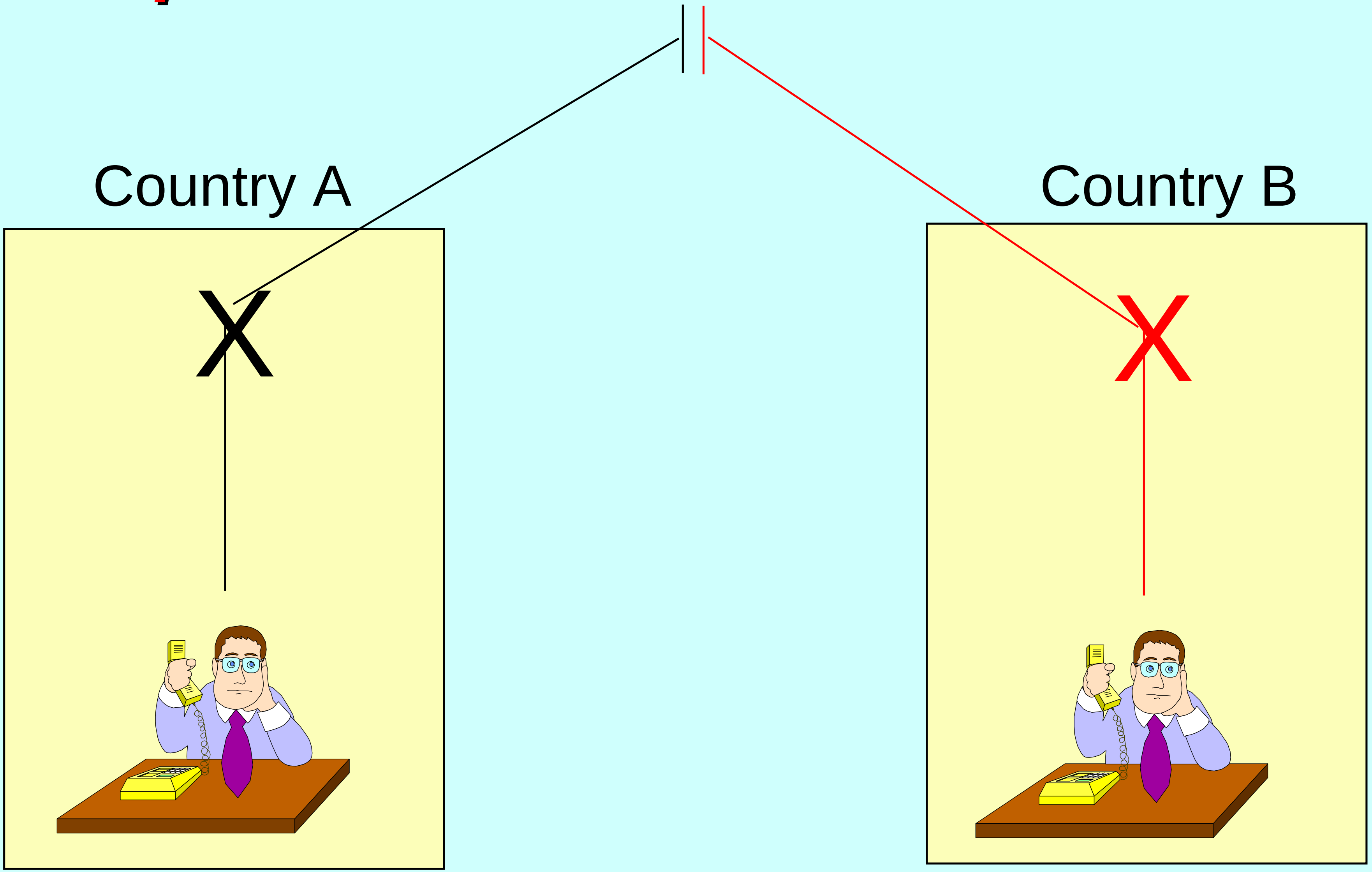


- There are 4 Regional Tariff Groups

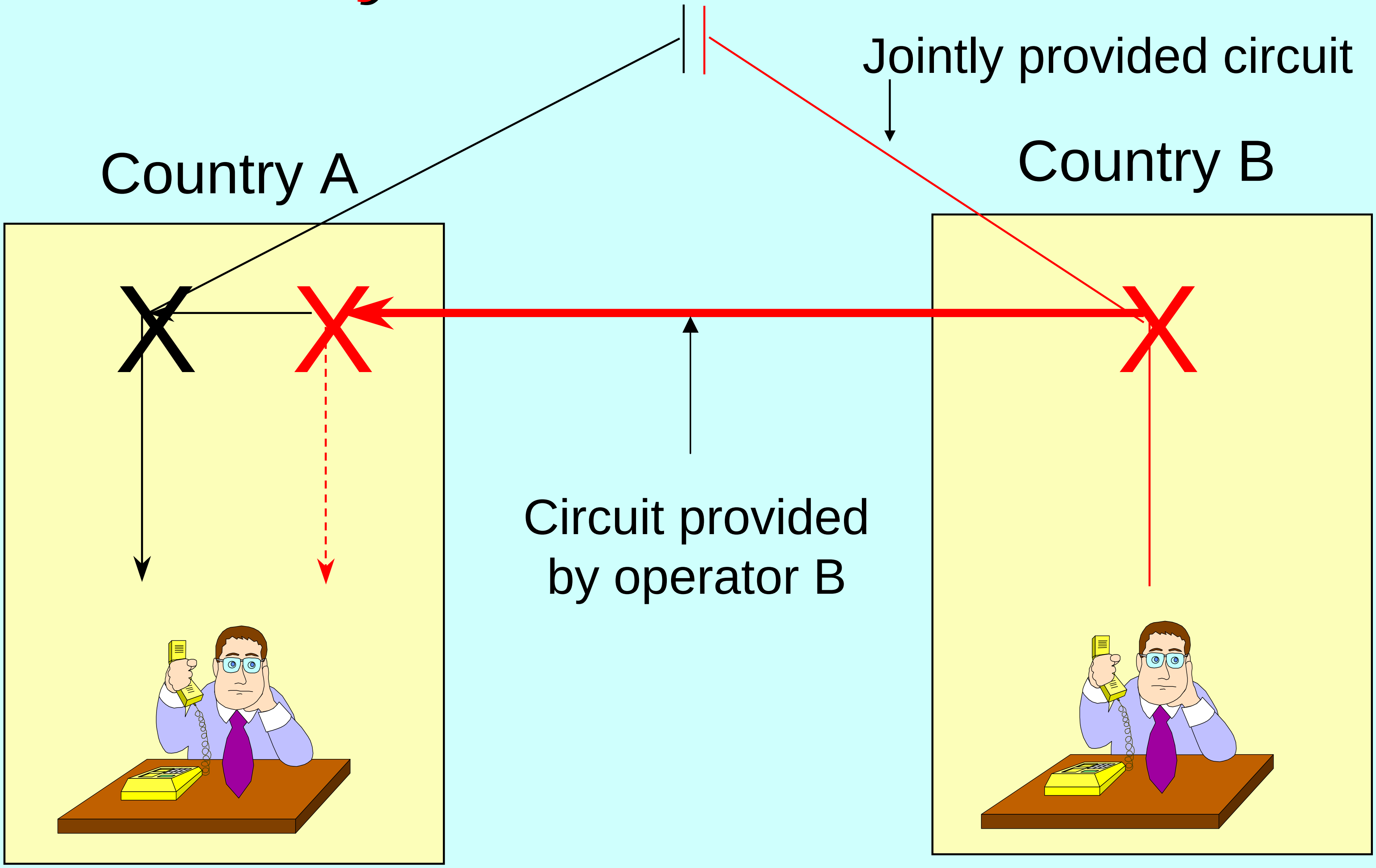
Main study items

- **Accounting rate reform**
  - Transitional arrangements
  - Action to facilitate negotiations
  - Network externalities
- **Mobile termination charge**
  - Cost elements
  - Level of termination charges
- **International Internet Connectivity**
  - Implementation of Recommendation D.50
  - Improving connectivity in LDCs
- **Other studies**
  - International Telecommunication Regulations

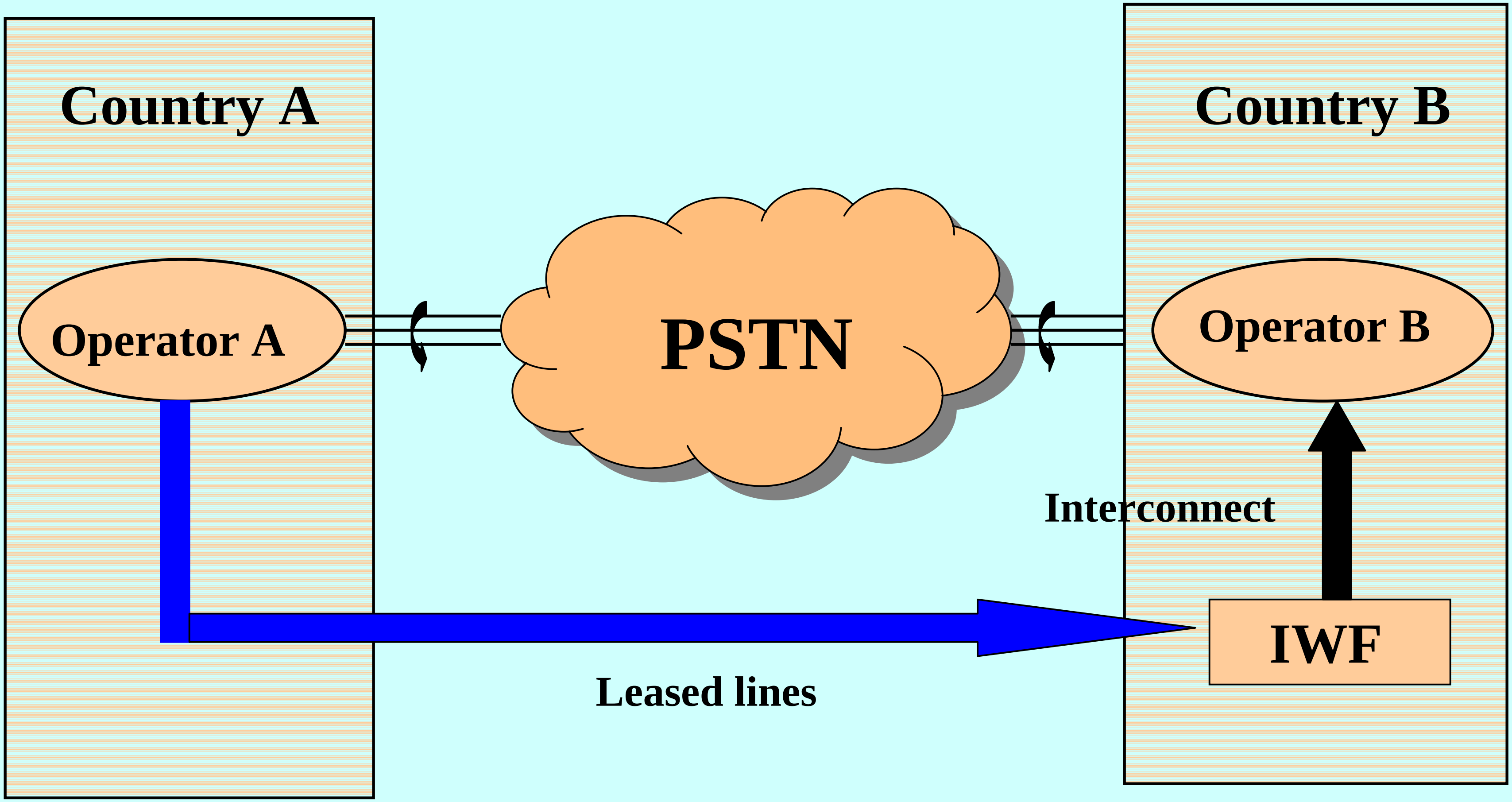
Traditional regime:
Joint provision of service



Emerging regime:
Market entry and interconnection



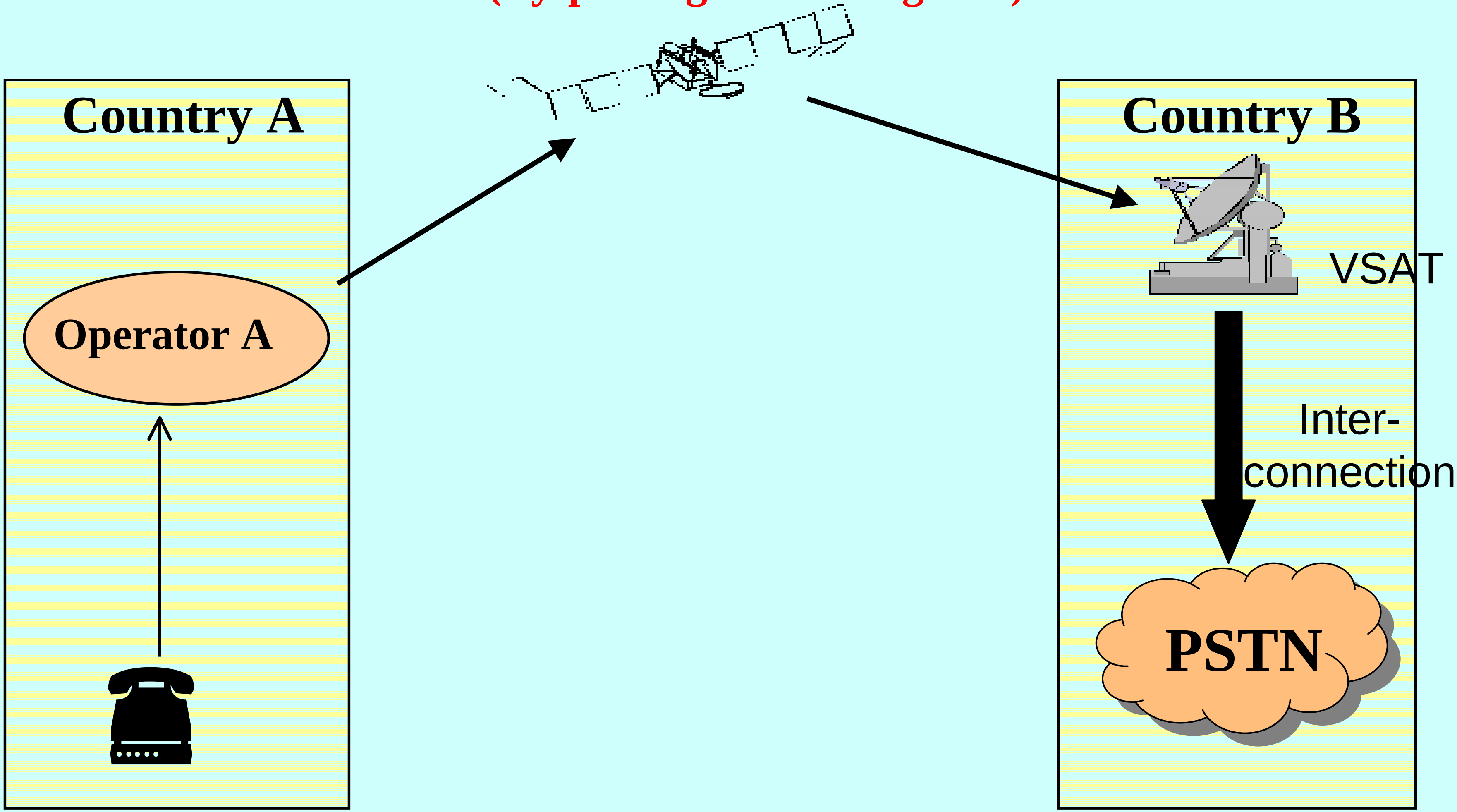
International simple resale (ISR)
(By-passing accounting rate)



Once a foreign carrier accepts the benchmark rate, it can negotiate ISR arrangements with US carriers

Telephone service using data transmission

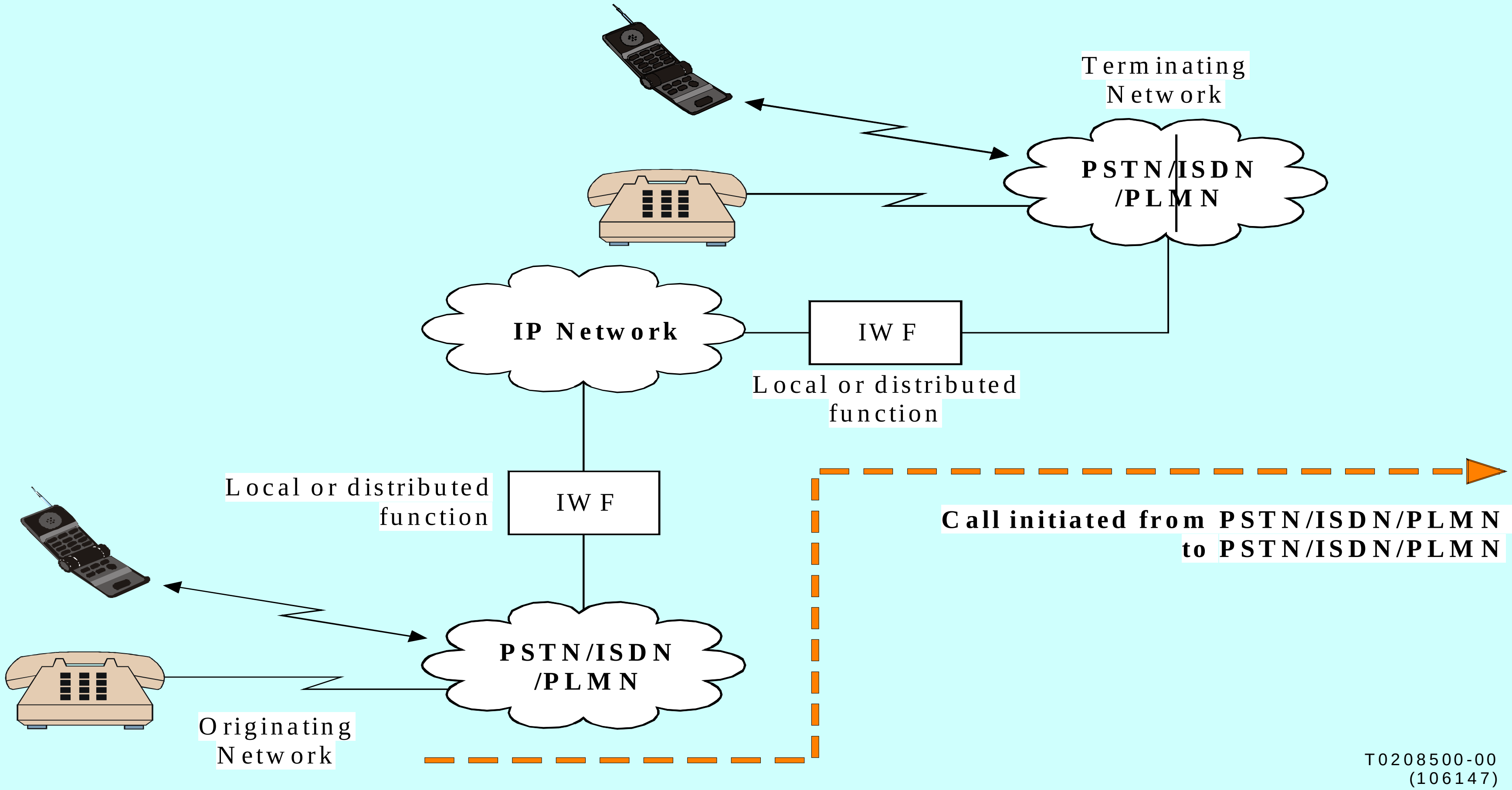
(By-passing accounting rate)



Voice is packetized = data transmission

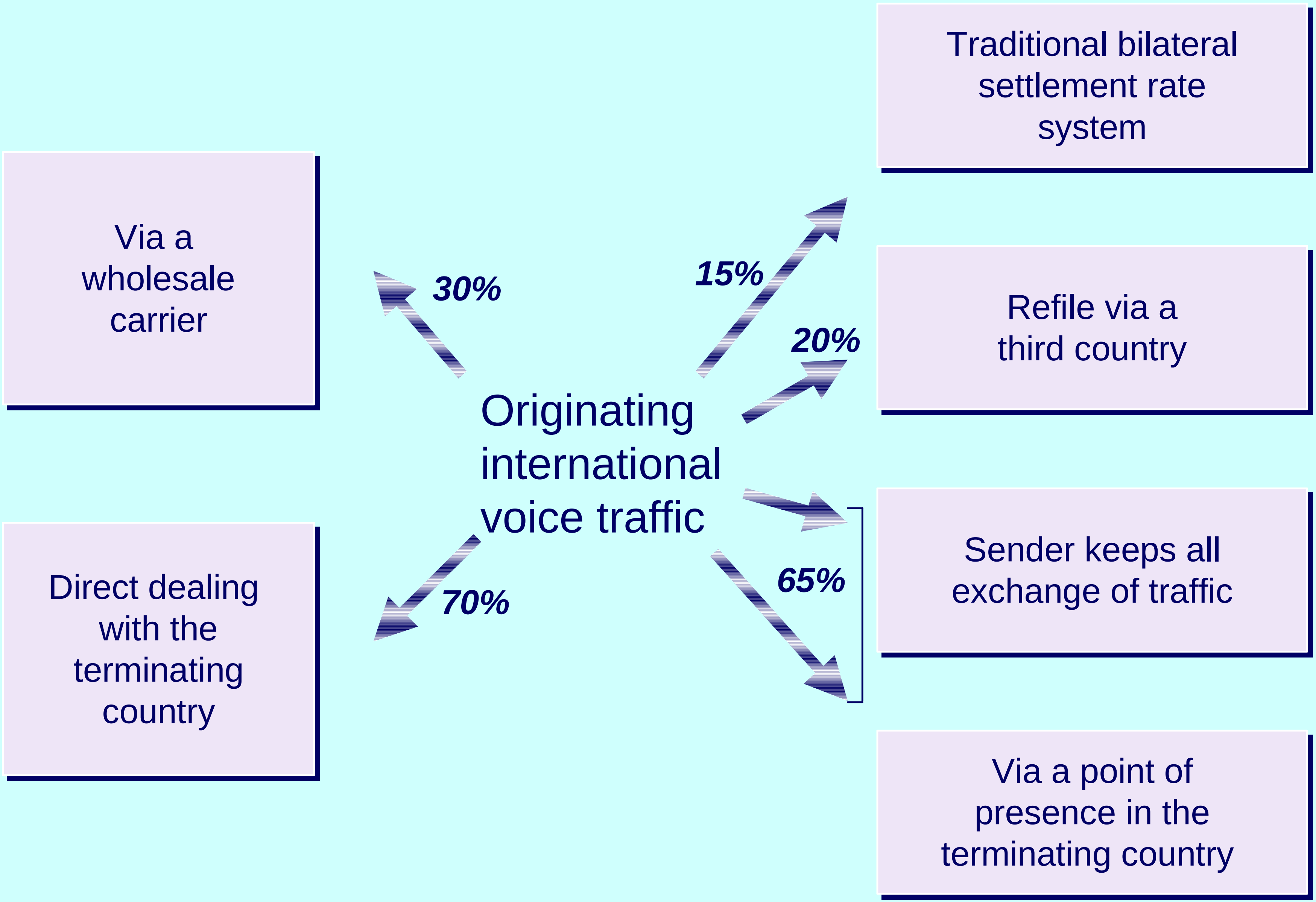
Telephone regulations do not apply

IP Telephony (by-passing accounting rate)



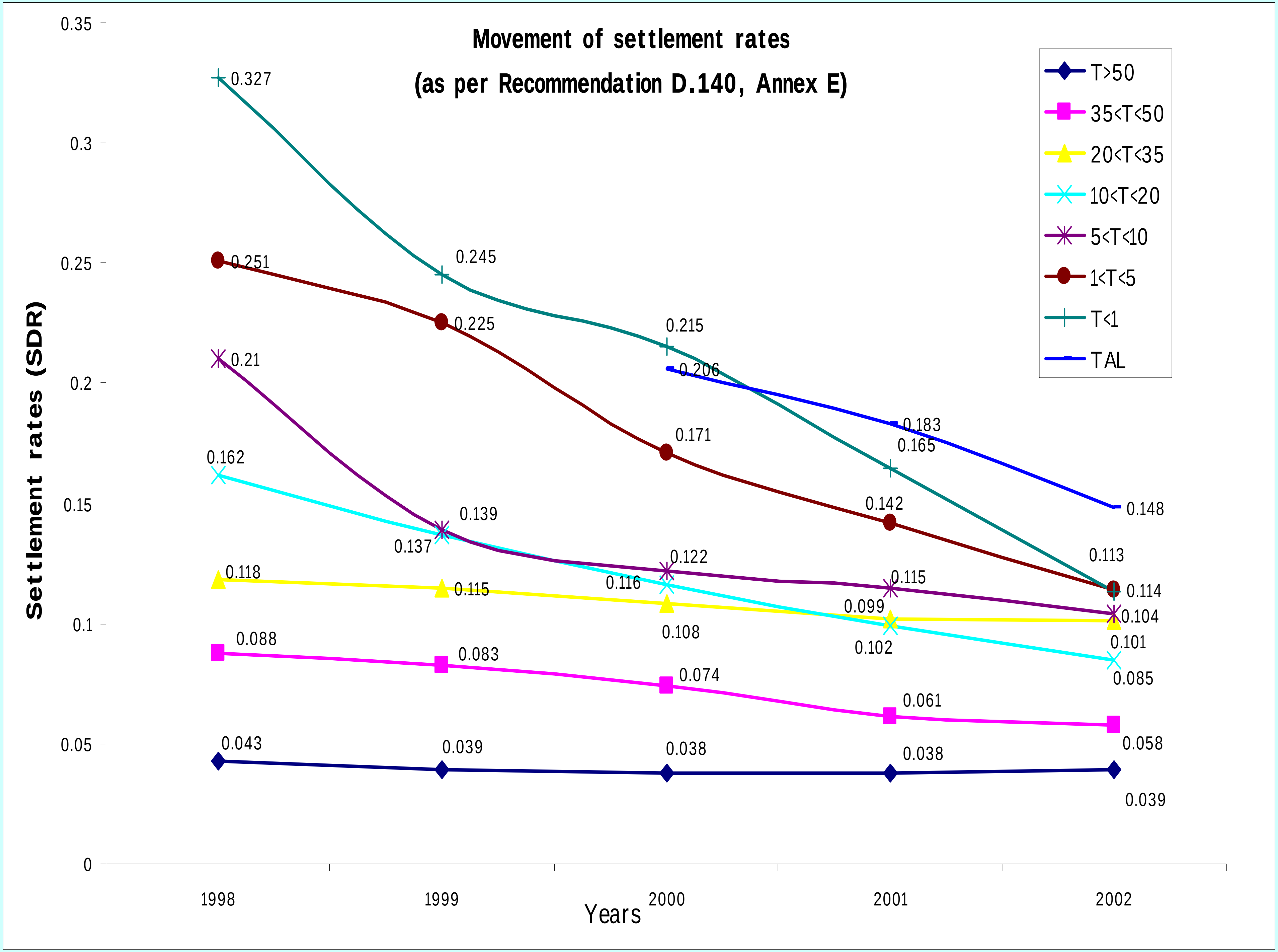
Call from International Telecommunication Network (ITN) to another ITN via IP-based Network

Delivering international voice traffic in 2002



So, what's the problem?

- **Accounting rates are the traditional way of sharing revenues from int'l services**
  - ⇨ **BUT, creates incentives among recipient countries to sustain rates at high level**
  - ⇨ **Accounting rate system not well-adapted to competitive market environment**
- **Strong pressure to move towards a cost-oriented system**
  - ⇨ **BUT, a cost-oriented system would be asymmetric**
  - ⇨ **US want cost-oriented but reject asymmetric charges for call termination**


Movement of settlement rates
(as per Recommendation D.140, Annex E)
Settlement rates (SDR)
Years
T>50
35<T<50
20<T<35
10<T<20
5<T<10
1<T<5
T<1
TAL
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
1998
1999
2000
2001
2002
0.327
0.245
0.215
0.165
0.113
0.251
0.225
0.171
0.142
0.114
0.21
0.139
0.122
0.115
0.104
0.162
0.137
0.116
0.099
0.085
0.118
0.115
0.108
0.102
0.101
0.088
0.083
0.074
0.061
0.058
0.043
0.039
0.038
0.038
0.039
0.206
0.183
0.148

Solutions & difficulties

- New Remuneration system (adopted)
  - ⇨ Termination charge system
  - ⇨ Settlement rate system
  - ⇨ Special arrangement
- Difficulty to quickly implement those systems
  - ⇨ Condition is to reach cost-oriented rate, but
  - ⇨ No cost data or model for some administrations ⇒ SG3 developed principles and TAF, TAS, TAL cost models
- Transitional arrangements (review at WTSA)
  - ⇨ To facilitate staged reduction to cost based rate
  - ⇨ to avoid sudden fall of revenue (smooth transition)
- SG3 developed:
  - ⇨ Guidelines for negotiation

Annex E to Recommendation D.140 "indicative target rates" by Teledensity (T) Band, in SDR (and US cents) per minute.

T<1	1<T<5	5<T<10	10<T<20	20<T<35	35<T<50	T>50
0.327 SDR	**0.251 SDR**	**0.210 SDR**	**0.162 SDR**	**0.118 SDR**	**0.088 SDR**	**0.043 SDR**
43.7¢ (end 2001)	33.5¢ (end 2001)	28.0¢ (end 2001)	21.6¢ (end 2001)	15.8¢ end 2001)	11.8¢ (end 2001)	5.7¢ (end 2001)
Low income FCC : 23 ¢ (January 2002/2003)		*Lower middle* FCC : 19 ¢ (January 2001)		*Upper middle* 19 ¢(J.2000)	*High income* FCC : 15 ¢ (January 1999)	

Note: The correspondence between teledensity band and income group shown in the bottom row is intended to be approximate, not precise. Source: ITU-T SG3 Report. 1 SDR = US$1.39.

Guidelines to facilitate the negotiation

The following non-binding guidelines could be applied when negotiating accounting rates and accounting rates share in the international service:

1 Each party should ensure that; i.e., all information to be given to the other party should be credible in order to lead the negotiations into right direction.

2 The parties should negotiate freely and make agreements voluntary, any kind of coercion should be avoided.

Each party should act constructively, any offer, proposal, action, etc. should be directed towards reaching an agreement. Complex concepts should be simplified as much as possible.

4 Each party should act time-saving, any delay should be avoided.

5 Regular re-negotiations and future amendments should be possible.

6 Until such time as an appropriate dispute settlement arrangement may be approved by the ITU with respect to accounting rates, both parties should have the possibility to consult a person or institution for mediation.

Addition to Recommendation D.140

1 accountingnrates for international telephone services should be cost-orientated and should take into account relevant cost trends;

2 each Administration should apply the above principle to all relations on a non-discriminatory basis; ***Accordingly, international calls should not be treated any less favorably than comparable national calls.***

Alternative proposal from Vietnam:

Accordingly, under normal circumstances (where tariff rebalancing has been effectively achieved) international calls should be treated any less….

Proposed changes to Annex A of Recommendation D.140

A.1.3 National extension

….

- national transmission facilities;
- national switching facilities;
- the local delivery facilities to the extent that their costs vary depending on volume; and
- the local delivery facilities, in particular for developing countries and countries having a low teledensity rate, by bilateral or multilateral agreement to the extent that their costs do not vary depending on volume.

A.2.1 Direct costs

Direct costs derive from the provision of the relevant services and consist of

- …….

A.2.2 Indirect costs

These <u>are</u> costs, which could be identified as having a direct causal relationship to more than one service, which would normally require further analysis to determine each service's cost, and for which a general allocation mechanism is used instead. <u>These may include but are not limited to:</u>

- <u>costs of network management and planning;</u>
- <u>costs of relevant frequency spectrum, rights of way and operational licenses ;</u>
- <u>costs of interoperator billing and interoperator customer management.</u>

-

A.2.3 Common costs

… … . <u>These may include but are not limited to</u>: … …

Network Externality

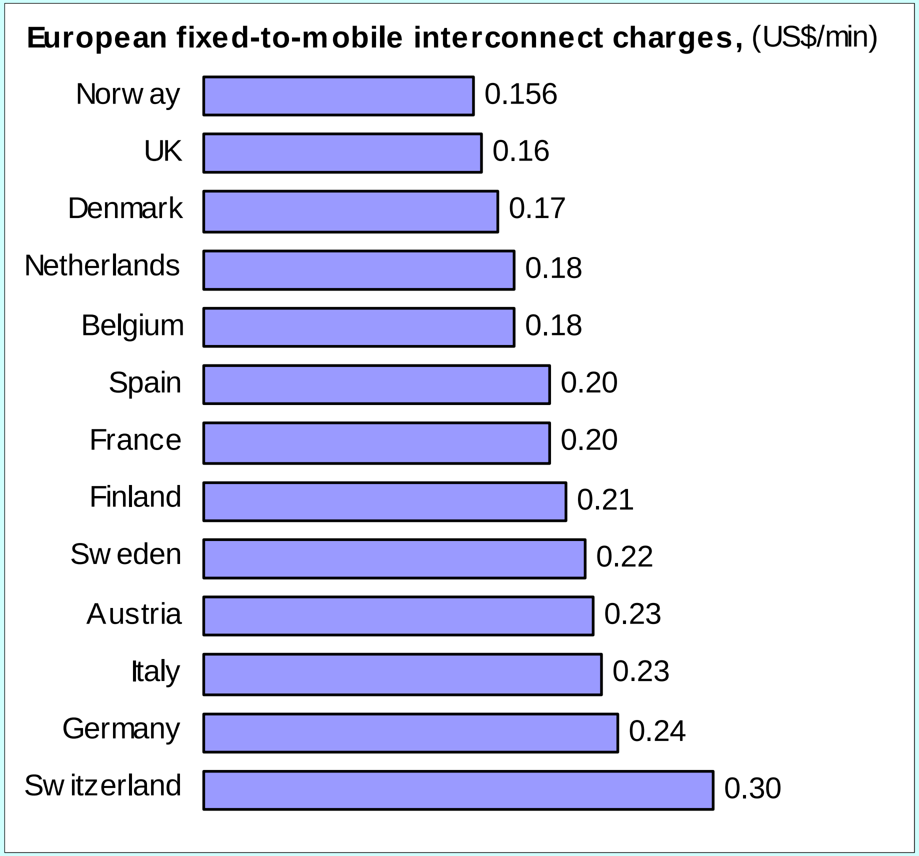
- Universal Obligation Fund = Cross Subsidy
  - ⇨ Not recognized as cost
- Network extremity = increase utility of a network to users
  - ⇨ operators to provide incentives for users to join the network = this can be added to the usage price or to the monthly subscription fee
- the network externality effect has a solid basis in economic analysis and had successfully – at least with some regulators – been brought to bear by mobile operators on their case for higher termination rates
  - ⇨ Can be used by the developing countries to enhancing take-up and roll-out of the network

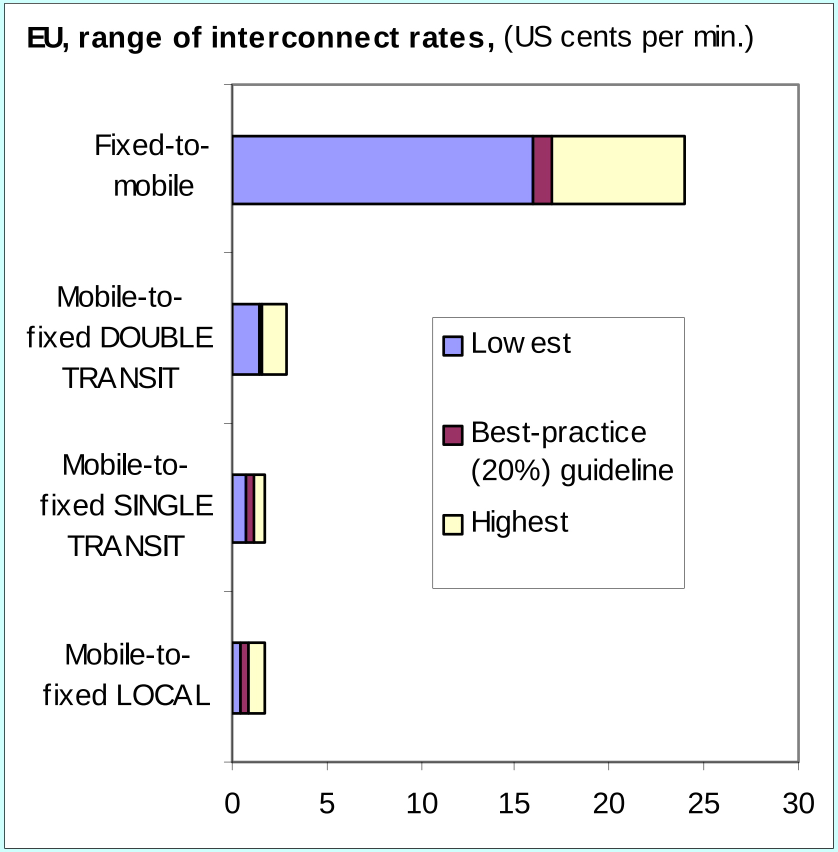
International calls terminating on the mobile network

- SG3 revised D.93 in 2000, allowing to negotiate
  - ⇨ a separate rate for traffic terminating on a mobile network
  - ⇨ however, this is by bilateral negotiation and when the rate is cost orientated
  - ⇨ The difference between the two rates should be as small as possible
- Many countries now request very high settlement rates (ten times)
  - ⇨ A review is now going on in SG3

Interconnection Rates in Selected European Countries

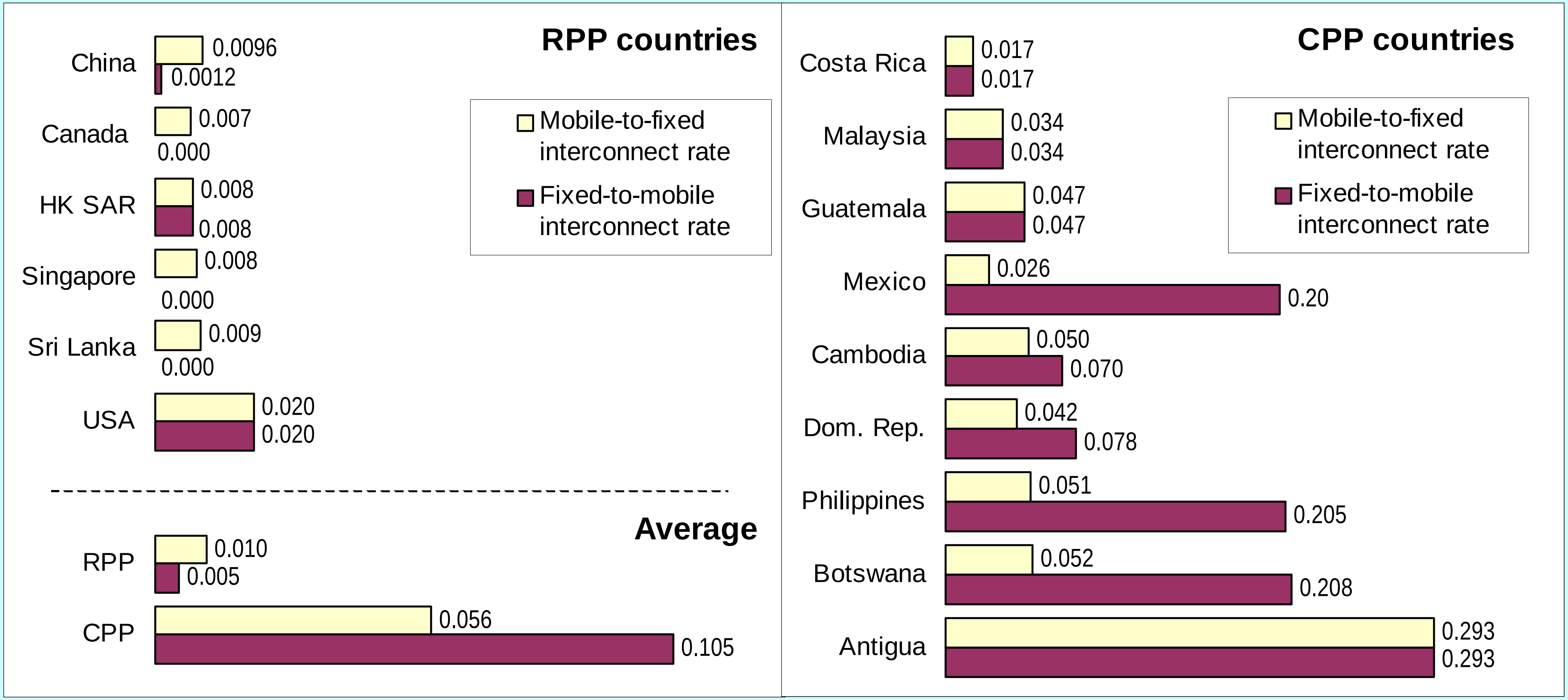
Calling Party Pays (CPP). In US $ per minute.





Interconnection rates in selected non-European countries

Calling Party Pays (CPP) vs. Receiving Party Pays (RPP). In US$ per minute.



TAL average interconnection charges

		Mobile-Mobile Interconnection charge	Fixed-Mobile Interconnection charge	Mobile-Fixed Interconnection charge	Fixed-Fixed Interconnection charge
Average	2001	0.155	0.1418	0.0546	0.0269
	2002	0.1406	0.13505	0.0461	0.0252

Modification to Recommendation D.93

3.2 The accounting rates for international traffic [originating or] terminating at a mobile station should be cost oriented and should be applied on a nondiscriminatory basis to all relations, and international calls should be treated no less favorably than comparable national calls.

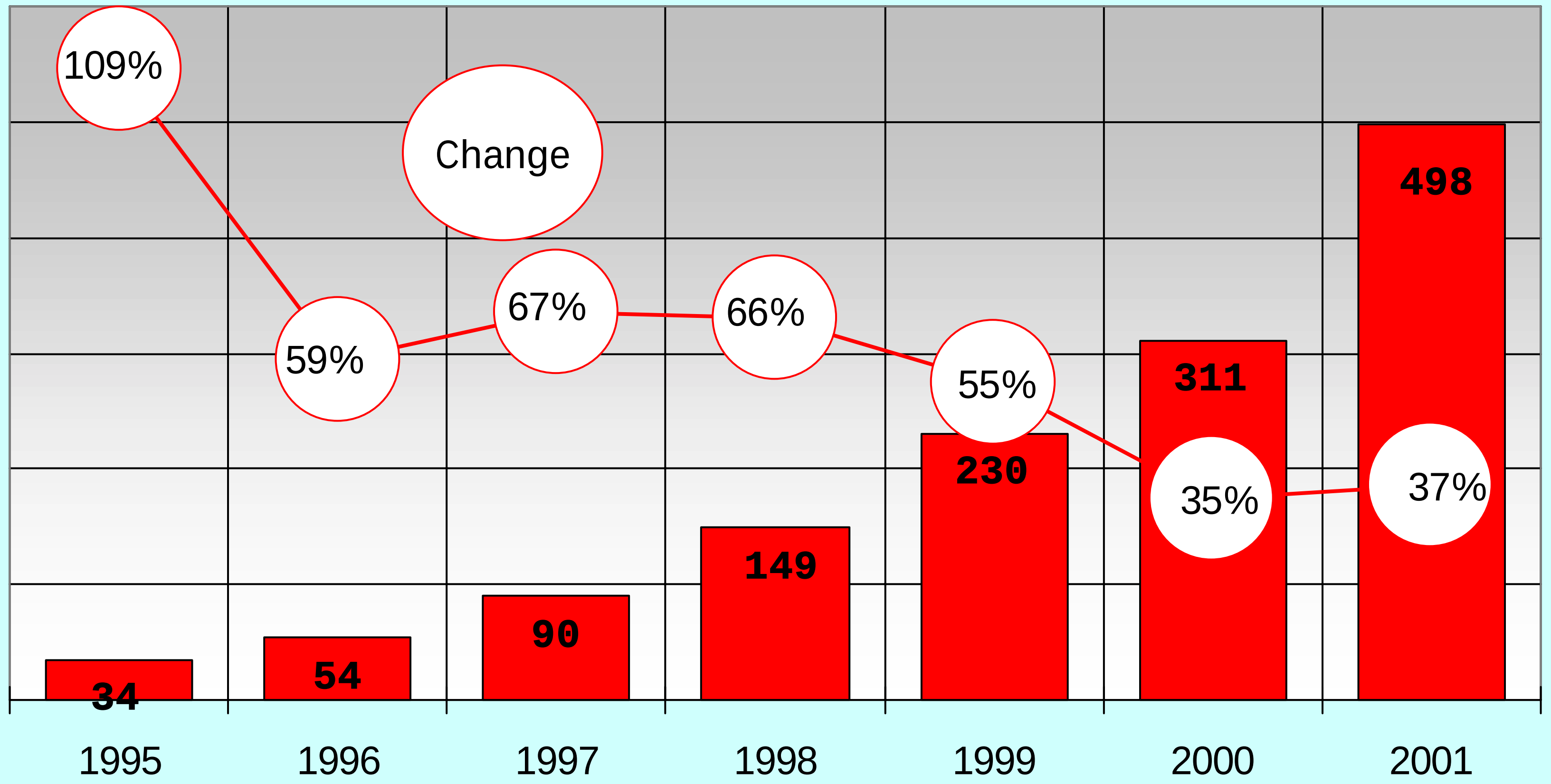
3.7 Where 3.3 b) applies but the difference between the two rates cannot objectively be justified on the basis of costs, the following could be considered:

a) The difference between the rates for calls terminating on fixed networks on the one hand and calls terminating on mobile networks on the other (arrived at by deducting the lower from the higher) should be no greater than the corresponding difference between the average of the available inter-operator rates for national fixed to fixed calls on the one hand and the average of available inter-operator rates for all national calls terminating on a mobile network on the other.

b) If such a comparison is not possible, the difference should be no greater than the corresponding difference between the average of retail rates for a national fixed to fixed call on the one hand and the average of retail rates for a national fixed to mobile call on the other hand.

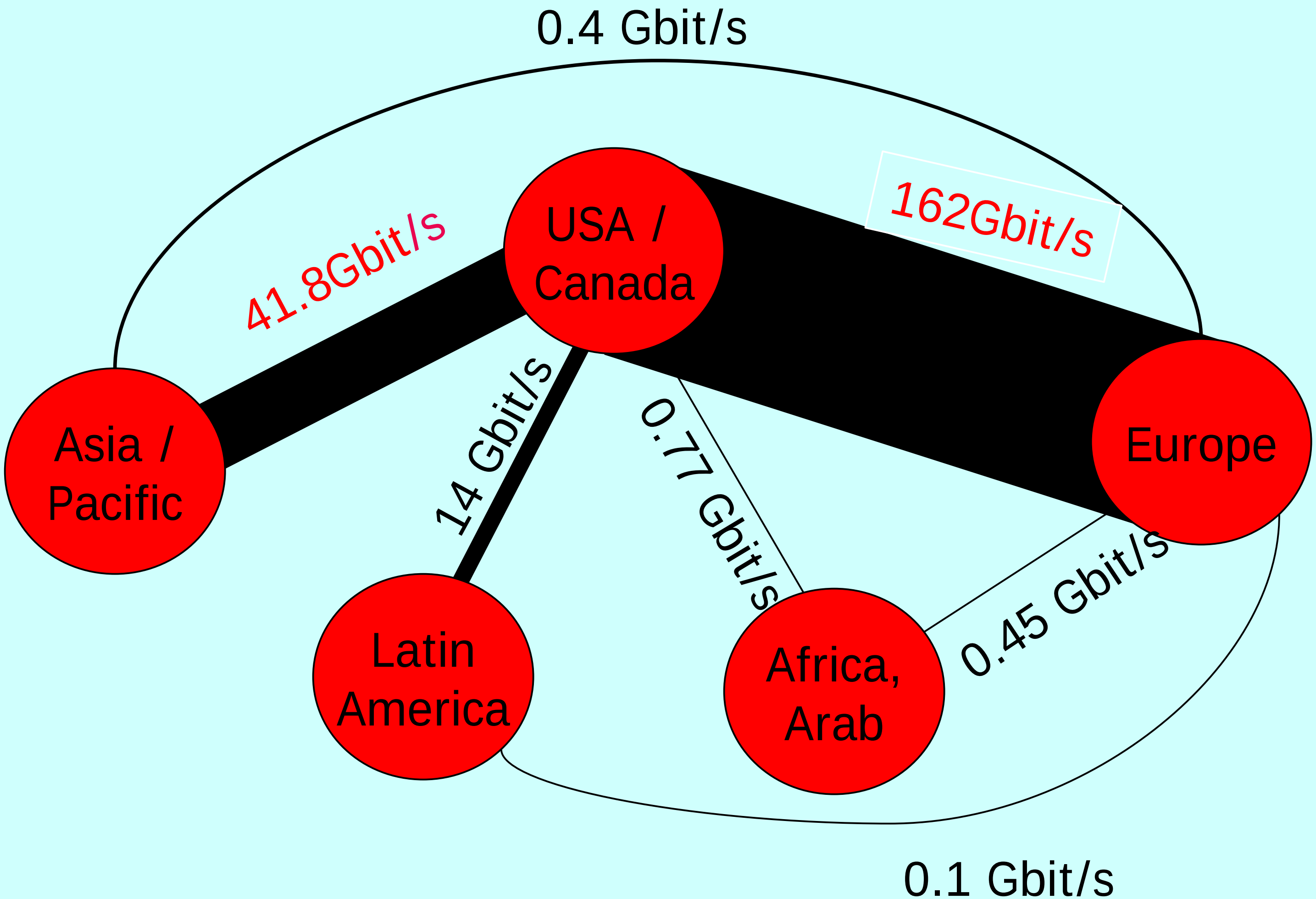
The Internet continues to grow ...

Internet users, million, and growth rate in %



Source: ITU.

Inter-regional Internet connectivity



Note: Gbit/s = Gigabits (1’000 Mb) per second.
Source: ITU adapted from TeleGeography.

ITU-T Recommendation D.50
International Internet Connection

The World Telecommunication Standardization Assembly (Montreal, 2000),

recognizing

the sovereign right of each State to regulate its telecommunications, as reflected in the Preamble to the Constitution,

noting

a) the rapid growth of Internet and Internet protocol-based international services;

b) that international Internet connections remain subject to commercial agreements between the parties concerned; and

c) that continuing technical and economic developments require ongoing studies in this area,

recommends

that Administrations involved in the provision of international Internet connections negotiate and agree to bilateral commercial arrangements enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as traffic flow, number of routes, geographical coverage and cost of international transmission amongst others.

Greece and the United States of America have expressed reservations and will not apply this Recommendation.

"Administration" means telecommunication administration or recognized operating agency

Rapporteur Groups meeting in Brussels (28 – 30 April 2003) and (20-21 October 2003)

① study of the effects of peering

② Self-help by smaller networks with limited traffic

③ development of general principles in Recommendation D.50

ANNEX A

GUIDELINES FOR INTERNATIONAL INTERNET INTERCONNECTION NEGOTIATIONS

When Parties involved in the provision of international Internet connections negotiate interconnection between their respective networks, interconnect prices and other commercial arrangements between two correspondent Parties should take account of the following:

1) Network connectivity:
2) Traffic flows and peak link capacity:
3) Cost of international link capacity and its apportionment:
4) Additional customer revenues:
5) Service support commitment:
6) Service performance:
7) Interconnect and other fees:
8) Legal liability:

International Telecommunication Regulations (ITRs)

- **ITRs elaborated in 1988**
  - ⇨ Monopoly situation
  - ⇨ Basic services only (Telephony)
- **New Market situation**
  - ⇨ Competition
  - ⇨ New services (Mobile, Internet)
- **Need for new ITRs?**
  - ⇨ Redraft ITRs
  - ⇨ Integrate into Constitution and Convention
- **Study Group 3 starts reviewing ITRs**
  - ⇨ Rapporteur Group on ITR review (tsg3itr)