

Note: The attached text is being proposed as a new Annex E to ITU-T Recommendation D.140.



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.140

**CHARGING AND ACCOUNTING
IN INTERNATIONAL TELECOMMUNICATION
SERVICES**

**ACCOUNTING RATE PRINCIPLES
FOR INTERNATIONAL TELEPHONE
SERVICES**

ITU-T Recommendation D.140

(Previously "CCITT Recommendation")

Annex E

TRANSITIONAL ARRANGEMENTS TOWARDS COST-ORIENTATION, BEYOND 1998

E.1 Preamble

This Annex E to ITU-T Recommendation D.140 sets out the multilaterally-agreed transitional arrangements, to be applied bilaterally, in cases where it has not proved possible to achieve cost-oriented accounting rates and transit shares, as described in Annex C of this Recommendation, to the satisfaction of all parties in a correspondent relationship. The transitional arrangements proposed here, if implemented successfully, will represent a significant step in the direction of cost-orientation, which is the ultimate goal.

E.2 General

Recognizing the change in the international telecommunications environment and the agreement to expand the menu of remuneration arrangements to be incorporated into D.150, it is recommended that Administrations/ROAs take into account the transitional arrangements towards cost-orientation, detailed below.

E.3 Indicative target rates for direct relations

E.3.1 Rates for remuneration for the use of telecommunication facilities should be established by mutual agreement among origin and destination Administration/ROAs in correspondent relationships, on the basis of cost data and mutually-agreed cost models. As a transitional measure, it is recommended that each Administration/ROA move towards the indicative target rates (upper limits) set out in Table 1. The target rates are shown in SDRs per minute, for countries / territories grouped according to their level of teledensity (telephone lines per 100 inhabitants) at 1st January 1998.

Table 1: Indicative target rates for direct relations (settlement rates)

Based on the average of the lowest 20 per cent of current published settlement rates in each teledensity group, and measured in SDRs per minute (T = telephone lines per 100 inhabitants)

Teledensity $T \leq 1$	$1 < T \leq 5$	$5 < T \leq 10$	$10 < T \leq 20$	$20 < T \leq 35$	$35 < T \leq 50$	$T > 50$
0.327 SDR	0.251 SDR	0.210 SDR	0.162 SDR	0.118 SDR	0.088 SDR	0.043 SDR

Source: ITU-T Study Group 3 Focus Group.

E.3.2 For small island states, which are defined as having a population of less than 200'000 inhabitants, distant from a continental mainland, off the main cable routes and therefore reliant on satellite communications, a separate category is proposed for which the indicative target rate is 0.292 SDR per minute. The 30 countries / territories within this category (see Tables A to G) may choose to adhere to this target or the one relevant to its teledensity.

E3.3 For the Least Developed Countries, which are recognised by the United Nations General Assembly, a separate category is proposed for which the indicative target rate is 0.312 SDR per minute. The 48 LDCs, plus the 3 "as if" LDCs, eligible within category (see Tables A to G) may choose to adhere to this target or the one relevant to its teledensity.

E.3.4 Where the indicative target rates proposed in Table 1 differ from the results obtained by applying a regional cost model which has been recognised by ITU-T Study Group 3, the results of the cost model could be applied within the region and, by bilateral agreement, in relations with Administrations/ROAs outside the region, as described in Approach 1 of Annex C of this Recommendation. It is recognised that where this is not possible, the indicative target rates proposed in Table 1 could be used as the basis for the cost and/or accounting rate trends described in Approach 2 of Annex C of this Recommendation.

E.3.5 It is recommended that Administrations/ROAs should utilise an appropriate costing methodology as soon as possible to determine their relevant costs.

E.3.6 Where the indicative target rates proposed in Table 1 differ from the cost elements identified in a country case study, which has been validated by the region concerned and endorsed by ITU-T Study Group 3, the cost elements from the case study could be applied within the region and, by bilateral agreement, in relations with Administrations/ROAs outside the region.

E.3.7 The indicative target rates proposed in Table 1 show upper limits and should not be interpreted as providing any guidance for establishing lower limits for direct relations, nor should they be taken as cost-orientated levels. It is recognised that, between competitive markets, rates for market access may be considerably below these target rates.

E.4 Indicative target rates for transit shares

E.4.1 Rates for the provision of transit service should be established by mutual agreement among the Administration/ROA originating the traffic, the transit service provider(s) and the Administration/ROA terminating the traffic. The indicative target rates for direct relations proposed in Table 1 exclude additional charges payable to transit service providers. In order to provide guidance on cost trends, particularly on routes where an origin or destination Administration/ROA lacks choice among transit routes and service providers, indicative target rates for transit shares (upper limits) are proposed in Table 2, in SDRs per minute, according to the volume of traffic on a particular route.

Table 2: Indicative target rates for transit shares

In SDRs per minute, according to annual traffic flows (corresponding to typical circuit capacities) on different routes

<i>Route minutes</i>	<i>Routes with up to 350'000 minutes per year</i>	<i>Routes with between 350'000 and 1.5 million minutes per year</i>	<i>Routes with >1.5 million minutes per year</i>
<i>Typical circuit</i>	<i>64 kbit/s</i>	<i>256 kbit/s</i>	<i>1.5/2 Mbit/s</i>
Target rate (upper limit) for transit share, in SDRs per minute	0.06 SDR	0.05 SDR	0.03 SDR

Note: Estimates of line capacity are based on a 4:1 compression ratio (e.g., a 64 kbit/s line provides four voice circuits) and an 18% capacity utilisation.

Source: ITU Study Group 3 Focus Group.

E.4.2 The indicative target rates proposed in Table 2 show upper limits and should not be interpreted as providing any guidance for establishing lower limits for transit shares, nor should they be taken as cost-oriented levels. It is recognised that, on competitive routes, transit shares may be considerably below these target rates.

E.5 Transition period

E5.1 The transitional arrangements towards cost-orientation should be negotiated through bilateral agreement in one of two possible ways:

1. On the principle of a 50/50 division of accounting revenue from traffic exchanged (symmetry), with both Administrations/ROAs applying the same rate (settlement rate) which is at or below the indicative target rate of the Administration/ROA in the lower teledensity category.
2. In an asymmetric manner, with both Administrations/ROAs applying different rates for call termination, both of which are below the indicative target rate of the Administration/ROA in the lower teledensity

category. In this case the Administration/ROA in the higher teledensity category would apply a lower rate for call termination than the Administration/ROA in the lower teledensity category.

E.5.2 It is recommended that the indicative target rates for direct relations proposed in Table 1 be attained by staged reductions over a three year period (i.e., by year-end 2001), taking fully into account those Administrations/ROAs likely to encounter serious financial difficulties as a result of a sudden fall in net settlement payments, for which a smoother transition path could be negotiated by bilateral agreement. Additionally, for those Administrations/ROAs in LDCs or in countries / territories with low teledensity, a longer transition period is recommended, as a function of the level of dependency of the country / territory on net settlement payments, as proposed in Table 3.

E.5.3 The starting point for the transition would be the current settlement rate level. Administrations / ROAs which have already achieved the target rate should continue to move towards cost-orientation.

E.5.4 It is recommended that the indicative target rates for transit shares shown in Table 2 be attained within two years (i.e., by year-end 2000).

Table 3: Transition period as a function of dependence on net settlement payments (NSP)

For the Least Developed Countries, and countries / territories with low teledensity

<i>Net settlement payments (NSP) as a percentage of total telecommunication revenue (TTR)</i>	<i>Target year for achieving target rate</i>
NSP < 10 per cent of TTR	year-end 2001
NSP between 10 - 20 per cent of TTR	year-end 2002
NSP between 20 - 30 per cent of TTR	year-end 2003
NSP greater than 30 per cent of TTR	year-end 2004

Note: 1. Calculations should be based on published data, from company accounts, on net settlement payments and total telecommunication revenue, valid for 1997 or most recent.
2. Data for net settlement payments and total telecommunication revenue should be valid for the country / territory as a whole, not just an individual Administration/ROA.

Source: ITU-T Study Group 3 Focus Group.

E.6 Level of contributions to Universal Service Obligations

E.6.1 Any Member State has the right to define the kind of Universal Service Obligation it wishes to maintain. However, such Obligations should be administered in a transparent, non-discriminatory and competitively neutral manner which is not more burdensome than necessary for the kind of universal service defined by the Member.

E.6.2 It is recognised that Member States have traditionally used net settlement payments to finance, in part, Universal Access. In order to enhance Universal Access to telecommunications in countries / territories with low teledensity, Administrations/ROAs in a higher teledensity category may give favourable consideration to terminating incoming calls at their own cost-oriented rate without requiring reciprocal treatment. Such favourable consideration would be voluntary and based on mutual agreement.

Annex Table 1: Summary of settlement rates, and indicative target rates, for different teledensity groups.

Annex Table 2: Summary of settlement rates and indicative target rates for small island states and Least Developed Countries

Groups A to G: Listing of countries / territories by teledensity, and relevant data.

Annex Table 1: Summary of settlement rates, and indicative target rates, for different teledensity groups

Expressed in SDRs per minute. Teledensity (T) is telephone lines per 100 inhabitants

	Group A	Group B	Group C	Group D	Group E	Group F	Group G
Definition	Teledensity $T \leq 1$	Teledensity $1 < T \leq 5$	Teledensity $5 < T \leq 10$	Teledensity $10 < T \leq 20$	Teledensity $20 < T \leq 35$	Teledensity $35 < T \leq 50$	Teledensity $T > 50$
No. of countries/ territories	42	31	33	30	27	29	32
Average settlement rate	0.528	0.438	0.394	0.363	0.284	0.208	0.155
Median settlement rate	0.487	0.400	0.375	0.317	0.225	0.200	0.100
Lowest settlement rate Country / Territory	0.250 Ghana	0.150 Albania	0.160 Tunisia	0.150 Libya	0.100 Puerto Rico	0.060 Belgium	0.040 Netherlands
Average, lowest 20 % Settlement rate (Target rates)	0.327	0.251	0.210	0.162	0.118	0.088	0.043
Countries / Territories	Ghana, DPR Congo, Lesotho, Uganda, Malawi, Liberia, Benin, Equator. Guinea	Albania, Algeria, Bhutan, Zimbabwe, Solomon Islands, Vanuatu	Tunisia, Bosnia, Mexico, Azerbaijan, Morocco, Mayotte, Brazil	Libya, TFYR Macedonia, South Africa, Poland, Yugoslavia, FR, Romania	Puerto Rico, Hungary, Slovak Republic, Czech Republic, Bulgaria,	Belgium, Italy, Guam, Ireland, Slovenia, Spain	Netherlands, France, United States, Sweden, Norway, Switzerland
Highest settlement rate Country / Territory	1.307 Afghanistan	0.815 D.P.R Korea	0.65 Syria	0.735 Iran	0.650 St-Helena	0.500 Ascension	0.500 Falklands/ (Malvinas)
Standard deviation	0.203	0.160	0.139	0.178	0.143	0.118	0.126

- Note:
1. Target rates are based on the average of the lowest 20 per cent of published settlement rates in each category.
 2. The data used to define teledensity groups is valid for 1st January 1998. The cut-off date for settlement rate data used for establishing target rates was 28th September 1998.
 3. Each country/ territory is treated as single data item. Where there are multiple operators, the average is taken.
 4. For small island states and Least Developed Countries, separate categories are proposed in Annex Table 2.

Source: ITU-T Study Group 3 Focus Group. Teledensity data is from ITU World Telecommunication Indicators Database. Published settlement rate data is from TCNZ, OFTEL and FCC. In addition, 12 other Administrations / ROAs submitted settlement rate data to the Focus Group.

Annex Table 2: Summary of settlement rates, and indicative target rates, for small island states and Least Developed Countries

Expressed in SDRs per minute. Teledensity (T) is telephone lines per 100 inhabitants

	Small island states	Least Developed Countries
Definition	Population of less than 200'000 inhabitants, distant from a continental mainland, off the main cable routes and therefore reliant on satellite communications	The Least Developed Countries recognised by the United Nations General Assembly, together with those countries treated by the international community "as if" they were Least Developed Countries
No. of countries/territories	30	51
Average settlement rate	0.394	0.502
Median settlement rate	0.375	0.450
Lowest settlement rate Country / Territory	0.245 Mayotte	0.280 Bhutan
Average, lowest 20 % settlement rate (Target rates)	0.292	0.312
Countries / Territories	Mayotte, Samoa, New Caledonia, Vanuatu, St Vincent, Dominica	Bhutan, DPR Congo, Lesotho, Solomon Islands, Samoa, Vanuatu, Nicaragua, Uganda, Malawi, Liberia
Highest settlement rate Country / Territory	0.650 St. Helena	1.307 Afghanistan
Standard deviation	0.107	0.190

- Note:
1. Target rates are based on the average of the lowest 20 per cent of published settlement rates in each category.
 2. The data used to define teledensity groups is valid for 1st January 1998. The cut-off date for settlement rate data used for establishing target rates was 28th September 1998.
 3. Each country/territory is treated as single data item. Where there are multiple operators, the average is taken.

Source: ITU-T Study Group 3 Focus Group. Teledensity data is from ITU World Telecommunication Indicators Database. Published settlement rate data is from TCNZ, OFTEL and FCC. In addition, 12 other Administrations / ROAs submitted settlement rate data to the Focus Group.

Notes:**LDC:** Least Developed Country**Low:** Low income**Lower-Mid:** Lower-mid income**Small island state:** see definition in Annex Table 2.**Group A:** $T \leq 1$ **Upper-mid:** Upper-middle income**High:** High income**OECD:** Member country of Organisation for Economic Co-operation and Development

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Afghanistan	0.14	29.0	LDC	2.614 SDR	N.Z
Angola	0.48	55.8	LDC	0.8 SDR	U.K
Bangladesh	0.26	316.1	LDC	1.02 SDR	N.Z
Benin	0.64	36.5	LDC	0.749 SDR	U.S
Burkina Faso	0.33	36.3	LDC	0.8 SDR	U.K
Burundi	0.25	15.2	LDC	0.8 SDR	N.Z
Cambodia	0.12	19.0	LDC	1.8 SDR	U.S
Cameroon	0.52	70.6	Low	0.8 SDR	U.K
Central African Rep.	0.290	9.7	LDC	1.6 SDR	U.S
Chad	0.111	7.5	LDC	1.71 SDR	U.K
Comoros	0.84	5.5	LDC	1 SDR	N.Z
Congo	0.82	22.0	Low	1.2 SDR	U.S
DPR Congo (average)	0.08	36.0	LDC	0.599 SDR	U.S
<i>Congo Telecel</i>				<i>0.599 SDR</i>	U.S
<i>Congo ONPTZ</i>				<i>0.599 SDR</i>	U.S
<i>Congo SpaceTel</i>				<i>0.599 SDR</i>	U.S
Côte d'Ivoire	0.878	129.8	Low	1.475 SDR	U.S
Equatorial Guinea	0.89	3.7	LDC	0.749 SDR	U.S
Eritrea	0.514	18.9	LDC	1.497 SDR	U.S
Ethiopia	0.26	157.0	LDC	1.347 SDR	U.S
Ghana	0.44	77.9	Low	0.5 SDR	Italy
Guinea	0.26	19.8	LDC	0.8 SDR	U.S
Guinea-Bissau	0.686	7.6	LDC	1.6 SDR	U.S
Haiti	0.80	60.0	LDC	0.898 SDR	U.S
Kenya	0.81	269.8	Low	0.823 SDR	U.S
Lao P.D.R.	0.47	24.5	LDC	1.3 SDR	N.Z
Lesotho	0.96	20.4	LDC	0.6 SDR	U.K
Liberia	0.16	4.5	LDC	0.69 SDR	U.K
Madagascar	0.27	43.2	LDC	0.8 SDR	U.K
Malawi	0.35	35.5	LDC	0.674 SDR	U.S
Mali	0.20	23.5	LDC	0.8 SDR	U.K
Mauritania	0.55	13.1	LDC	1.243 SDR	U.S
Mozambique	0.36	66.1	LDC	1 SDR	U.K/U.S
Myanmar	0.460	213.5	LDC	1.46 SDR	U.K
Nepal	0.77	160.2	LDC	1 SDR	U.K
Niger	0.17	16.4	LDC	0.973 SDR	U.S
Nigeria	0.36	412.8	Low	1.048 SDR	U.S
Rwanda	0.28	15.0	LDC	1.1 SDR	N.Z
Sierra Leone	0.39	17.4	LDC	1.1 SDR	U.K
Somalia	0.15	15.0	LDC	0.973 SDR	U.S
Sudan	0.54	151.0	LDC	0.973 SDR	U.S
Tanzania	0.30	92.8	LDC	0.823 SDR	U.S
Togo	0.58	25.1	LDC	1.1 SDR	N.Z
Uganda	0.25	51.8	LDC	0.674 SDR	U.S
Zambia	0.94	77.9	LDC	0.8 SDR	U.K

Group B: $1 < T \leq 5$

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Albania	2.33	86.8	Low	0.3 SDR	U.K
Algeria	4.75	1'400.3	Lower-mid	0.35 SDR	U.K
Bhutan	1.01	6.1	LDC	0.56 SDR	U.K
Cuba	3.35	370.8	Lower-mid	0.83 SDR	n.a
D.P.R. Korea	4.90	1'100.0	Lower-mid	1.63 SDR	N.Z
Djibouti	1.32	8.3	LDC	1 SDR	U.K
Gabon	3.27	37.3	Upper-mid	0.8 SDR	U.K
Gambia	1.89	21.3	LDC	0.749 SDR	U.S
Guatemala	4.08	429.7	Lower-mid	0.606 SDR	U.S
Honduras	3.68	233.6	Low	0.8 SDR	U.K
India	1.86	17'801.7	Low	1.183 SDR	U.S
Indonesia (average)	2.47	4'982.5	Lower-mid	0.786 SDR	U.S
<i>Indonesia INDOSAT</i>				0.786 SDR	U.S
<i>Indonesia SATELINDO</i>				0.786 SDR	U.S
Iraq	3.28	675.0	Lower-mid	1.1 SDR	N.Z
Kiribati	2.57	2.0	Small Island State / LDC	0.9 SDR	N.Z
Mongolia	3.33	87.3	Low	1.47 SDR	U.K
Nicaragua	2.94	127.8	"As if" LDC	0.644 SDR	U.S
Pakistan	1.77	2'557.0	Low	1.02 SDR	N.Z
Papua New Guinea	1.07	47.0	Lower-mid	0.7 SDR	N.Z
Paraguay	3.56	176.3	Lower-mid	0.748 SDR	U.S
Philippines (average)	2.83	2'078.0	Lower-mid	0.635 SDR	U.S
<i>Philippines Capwire</i>				0.614 SDR	U.S
<i>Philippines Digital</i>				0.614 SDR	U.S
<i>Philippines ETPI</i>				0.614 SDR)	U.S
<i>Philippines Globe Telecom</i>				0.898 SDR	U.S
<i>Philippines GMCR</i>				0.614 SDR	U.S
<i>Philippines ICC Telecoms</i>				0.614 SDR	U.S
<i>Philippines Islacom</i>				0.614 SDR	U.S
<i>Philippines Philcom</i>				0.614 SDR	U.S
<i>Philippines PLDT</i>				0.539 SDR	U.S
<i>Philippines SMART</i>				0.614 SDR	U.S
S. Tomé & Príncipe	1.97	2.5	Small Island State / LDC	1.13 SDR	U.K
Senegal	1.32	115.9	"As if" LDC	1.265 SDR	U.S
Solomon Islands	1.84	7.2	LDC	0.6 SDR	N.Z
Sri Lanka	1.70	315.2	Low	1.1 SDR	U.K
Swaziland	2.41	22.6	Lower-mid	0.898 SDR	U.S
Tajikistan	3.77	227.6	Low	0.8 SDR	N.Z
Vanuatu	2.57	4.5	Small Island State / LDC	0.6 SDR	N.Z
Viet Nam	2.07	1'587.3	Low	1.498 SDR	U.S
West Bank and Gaza	4.35	120.0	Lower-mid	n.a.	n.a
Yemen	1.34	220.3	LDC	1 SDR	N.Z
Zimbabwe	1.72	212.0	Low	0.6 SDR	N.Z

Group C: 5 < T ≤ 10

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Azerbaijan	8.52	645.1	Low	0.4 SDR	U.K
Bolivia	6.88	535.0	Lower-mid	0.599 SDR	U.S
Bosnia	8.41	326.0	Low	0.34 SDR	U.K
Botswana	5.50	83.7	Lower-mid	0.599 SDR	U.S
Brazil	9.57	15'105.9	Upper-mid	0.524 SDR	U.S
Cape Verde	8.19	33.2	LDC	0.749 SDR	U.S
China	5.57	70'310.0	Low	1.017 SDR	U.S
Dominican Rep. (average)	8.02	709.2	Lower-mid	0.549 SDR	U.S
<i>Dominican Rep. ITC</i>				<i>0.974 SDR</i>	U.S
<i>Dominican Rep. WorldCom</i>				<i>0.524 SDR</i>	U.S
<i>Dominican Rep. AT&T</i>				<i>0.599 SDR</i>	U.S
<i>Dominican Rep. MCI</i>				<i>0.449 SDR</i>	U.S
<i>Dominican Rep. Sprint</i>				<i>0.599 SDR</i>	U.S
<i>Dominican Rep. AAC&R-Dominican Rep.</i>				<i>0.180 SDR</i>	U.S
<i>Dominican Rep. CODETEL with: (ave)</i>				<i>0.543 SDR</i>	U.S
<i>Dominican Rep. TRICOM</i>				<i>0.524 SDR</i>	U.S
Ecuador	7.53	898.6	Lower-mid	0.749 SDR	U.S
Egypt	5.57	3'452.7	Lower-mid	0.898 SDR	U.S
El Salvador	5.61	325.3	Lower-mid	0.629 SDR	N.Z
Fiji	8.87	71.8	Lower-mid	0.75 SDR	N.Z
Guyana	5.99	50.2	Low	1.1 SDR	U.K
Jordan	6.97	402.6	Lower-mid	1.123 SDR	U.S
Kyrgyzstan	7.47	350.9	Low	1 SDR	U.K
Maldives	6.58	18.0	LDC	1.2 SDR	N.Z
Marshall Islands	5.92	3.4	Small Island State	0.898 SDR	N.Z
Mayotte	8.97	9.3	Small Island State	0.49 SDR	U.S
Mexico	9.61	9'263.6	OECD	0.375 SDR	n.a
Micronesia	7.56	8.2	Small Island State	0.749 SDR	U.S
Morocco	5.01	1'375.0	Lower-mid	0.49 SDR	U.K
Namibia	6.25	100.8	"As if" LDC	0.861 SDR	U.S
Oman	8.35	200.6	Upper-mid	1 SDR	U.K
Peru	6.75	1'645.9	Lower-mid	0.636 SDR	U.S
Samoa	5.06	8.5	Small Island State / LDC	0.6 SDR	N.Z
Syria	8.78	1'312.0	Lower-mid	1.3 SDR	U.K
Thailand	7.95	4'815.0	Lower-mid	0.786 SDR	U.S
Tonga	7.90	7.8	Small Island State	0.85 SDR	N.Z
Tunisia	7.02	654.2	Lower-mid	0.32 SDR	U.K
Turkmenistan	7.40	338.2	Lower-mid	1.21 SDR	U.K
Tuvalu	5.04	0.5	Small Island State / LDC	0.9 SDR	N.Z
Uzbekistan	6.68	1'531.3	Lower-mid	1.1 SDR	N.Z
Wallis and Futuna	9.72	1.46	Small Island State	1.2 SDR	N.Z

Group D: $10 < T \leq 20$

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Argentina	18.90	6'750.0	Upper-mid	0.561 SDR	U.S
Armenia	18.90	579.5	Low	1.123 SDR	U.S
Belize	13.69	30.7	Lower-mid	0.898 SDR	U.S
Chile (average)	15.59	2'600.0	Upper-mid	0.711 SDR	U.S
<i>Chile Bell South</i>				0.673 SDR	U.S
<i>Chile Chilesat</i>				0.673 SDR	U.S
<i>Chile CIDCOM Larga Distancia</i>				0.749 SDR	U.S
<i>Chile CTC</i>				0.673 SDR	U.S
<i>Chile ENTEL</i>				0.823 SDR	U.S
<i>Chile VTR Telecomunicaciones</i>				0.673 SDR	U.S
Colombia	14.80	4'645.5	Lower-mid	0.749 SDR	U.S
Costa Rica	16.86	584.5	Lower-mid	0.524 SDR	U.S
Georgia	10.49	567.4	Low	0.823 SDR	U.S
Iran (I.R.)	10.73	6'513.0	Lower-mid	1.47 SDR	U.K
Jamaica (average)	14.03	353.0	Lower-mid	0.661 SDR	U.S/n.a
<i>Jamaica Jamaica Communications</i>				0.861 SDR	U.S
<i>Jamaica C & W of Jamaica</i>				0.46 SDR	n.a
Kazakhstan	11.59	1'916.6	Lower-mid	1 SDR	U.S
Lebanon	14.93	460.6	Lower-mid	1.3 SDR	U.K
Libya	13.52	380.0	Upper-mid	0.3 SDR	U.K
Malaysia (average)	19.55	4'223.0	Upper-mid	0.522 SDR	U.S
<i>CELCOM</i>				0.524 SDR	U.S
<i>MAXIS</i>				0.524 SDR	U.S
<i>Mutiara</i>				0.449 SDR	U.S
<i>Surikat Telekom</i>				0.591 SDR	U.S
Mauritius	19.52	222.7	Upper-mid	1.123 SDR	U.S
Moldova	14.55	627.1	Lower-mid	0.36 SDR	U.K
Nauru	20.00	2.2	Small Island State	0.9 SDR	N.Z
Panama	12.16	325.3	Lower-mid	0.763 SDR	U.S
Poland	19.43	7'510.0	OECD	0.34 SDR	U.K
Romania	13.98	3'161.2	Lower-mid	0.35 SDR	U.K
Russia (average)	18.19	26'874.6	Lower-mid	0.585 SDR	US/UK
<i>Russia Aerocom, Ltd.</i>				0.53 SDR	U.K
<i>Russia Astelit</i>				0.72 SDR	U.K
<i>Russia Baltic Communications Ltd.</i>				0.60 SDR	U.K
<i>Russia Comstar Telecom</i>				0.29 SDR	U.K
<i>Russia Komet</i>				0.52 SDR	U.K
<i>Russia Kotelcom</i>				0.35 SDR	U.K
<i>Russia Moscow 543</i>				0.57 SDR	U.K
<i>Russia Rostelcom</i>				0.52 SDR	U.K
<i>Russia S P I</i>				0.53 SDR	U.K
<i>Russia Sovintel</i>				0.52 SDR	U.S
<i>Russia Teleport-TP</i>				0.70 SDR	U.K
Saudi Arabia	11.72	2'285.4	Upper-mid	1.31 SDR	N.Z
Seychelles	19.56	14.9	Small Island State	1.123 SDR	U.S
South Africa	10.72	4'646.1	Upper-mid	0.31 SDR	U.K
St. Vincent	17.93	20.5	Small Island State	0.606 SDR	U.S
Suriname	14.62	63.9	Lower-mid	1.31 SDR	U.K
TFYR Macedonia	17.44	367.3	Lower-mid	0.3 SDR	U.K
Trinidad & Tobago	19.01	243.4	Upper-mid	0.44 SDR	Venezuela
Ukraine	18.56	9'410.0	Lower-mid	0.38 SDR	U.K
Venezuela	12.08	2'804.0	Lower-mid	0.44 SDR	Trin & Tob.
Yugoslavia FR	19.69	2'081.6	Lower-mid	0.34 SDR	U.K

Group E: 20 < T < 35

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Bahamas	33.33	96.3	High	0.45 SDR	U.S
Bahrain	24.12	152.3	Upper-mid	1 SDR	N.Z
Belarus	22.63	2'312.6	Lower-mid	0.43 SDR	U.K
Brunei Darussalam(av)	25.83	78.8	High	0.412 SDR	U.S
<i>Brunei DSTCom</i>				<i>0.224 SDR</i>	U.S
<i>Brunei Jabatan Telekom</i>				<i>0.6 SDR</i>	U.S
Bulgaria	32.26	2'681.1	Lower-mid	0.27 SDR	U.K
Cook Islands	24.77	5.1	Small Island State	0.774 SDR	N.Z
Croatia	33.53	1'488.1	Upper-mid	0.4 SDR	U.S
Czech Republic	31.80	3'275.2	OECD	0.25 SDR	U.K
Dominica	25.23	18.7	Small Island State	0.606 SDR	U.S
Estonia	32.10	469.0	Lower-mid	0.33 SDR	U.K
French Guyana	28.87	44.2	High	0.4 SDR	U.S
French Polynesia	21.59	52.3	High	0.7 SDR	N.Z
Grenada	26.10	26.5	Small Island State	0.606 SDR	U.S
Hungary	26.06	2'661.6	OECD	0.22 SDR	U.K
Kuwait	22.74	411.6	High	1 SDR	U.K
Latvia	30.16	748.0	Lower-mid	0.28 SDR	U.K
Lithuania	28.29	1'048.2	Lower-mid	0.34 SDR	U.K
New Caledonia	24.58	47.5	Small Island State	0.6 SDR	N.Z
Niue	25.00	0.5	Small Island State	0.9 SDR	U.K
Puerto Rico	33.57	1'254.1	Upper-mid	0.2 SDR	N.Z
Qatar	24.94	141.9	High	1 SDR	U.K
Slovak Republic	25.87	1'391.9	Lower-mid	0.24 SDR	U.K
St. Helena	29.83	1.79	Small Island State	1.3 SDR	U.K
St. Lucia	25.39	37.0	Small Island State	0.606 SDR	U.S
Turkey	24.11	15'744.0	OECD	0.39 SDR	U.K
Turks & Caicos	27.01	4.05	Small Island State	0.606 SDR	U.S
Uruguay	23.07	761.1	Upper-mid	0.674 SDR	U.S

Group F: 35 < T ≤ 50

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Andorra	43.17	32.0	High	0.2 SDR	U.K
Antigua & Barbuda	40.81	28.0	Small Island State	0.78 SDR	U.K
Aruba	36.69	33.2	High	0.569 SDR	U.S
Ascension	37.37	0.44	Small Island State	1 SDR	U.K
Austria	48.41	3'969.4	OECD	0.2 SDR	U.S
Barbados	36.49	96.5	Upper-mid	0.786 SDR	U.S
Belgium	46.81	4'768.9	OECD	0.12 SDR	U.K
Greenland	41.66	23.4	High	0.4 SDR	U.K
Guadeloupe	39.62	170.7	Upper-mid	0.4 SDR	U.S
Guam	45.31	71.1	High	0.187 SDR	U.S
Ireland	41.10	1'500.0	OECD	0.19 SDR	U.K
Israel (average)	44.98	2'656.0	High	0.3 SDR	U.K
<i>Israel Bezeq</i>				0.3 SDR	U.K
<i>Israel Golden Lines</i>				0.3 SDR	U.K
Italy	44.02	25'698.0	OECD	0.16 SDR	U.S
Japan (average)	48.80	60'380.9	OECD	0.21 SDR	U.S
<i>Japan International Digital</i>				0.21 SDR	U.S
<i>Japan Japan Telecom</i>				0.22 SDR	U.S
<i>Japan KDD-America</i>				0.21 SDR	U.S
<i>Japan Kokusai Denshin Denwa</i>				0.21 SDR	U.S
Korea (Rep.) (average)	44.40	20'421.9	OECD	0.636 SDR	U.S
<i>Korea DACOM</i>				0.636 SDR	U.S
<i>Korea Korea Telecom</i>				0.636 SDR	U.S
<i>Korea ONSE</i>				0.636 SDR	U.S
Macao	40.48	169.6	High	0.64 SDR	U.K
Malta	49.76	187.0	Upper-mid	0.2 SDR	U.K
Martinique	41.62	163.3	High	0.4 SDR	U.S
Montserrat	43.02	4.73	Small Island State	0.606 SDR	U.S
Neth. Antilles	36.59	75.9	High	0.569 SDR	U.S
New Zealand (average)	48.57	1'840.0	OECD	0.2 SDR	U.S
<i>New Zealand CLEAR</i>				0.2 SDR	U.S
<i>New Zealand TNZI</i>				0.2 SDR	U.S
Northern Marianas	42.81	21.0	Small Island State	0.82 SDR	n.a
Portugal	38.40	3'819.0	OECD	0.28 SDR	U.K
Réunion	35.13	236.5	High	0.49 SDR	U.S
Singapore	44.77	1'684.9	High	0.54 SDR	U.S
Slovenia	36.40	722.5	Upper-mid	0.2 SDR	U.K
Spain	40.32	15'854.4	OECD	0.2 SDR	U.K
St. Kitts and Nevis	38.16	15.6	Small Island State	0.606 SDR	U.S
United Arab Emirates	35.09	835.1	High	0.6 SDR	U.K

Group G: T > 50

Administration	Teledensity	Main lines (000), 1998	Income Group	Lowest Accounting rate	To
Anguilla	55.20	4.42	Small Island State	0.681 SDR	U.S
Australia (average)	51.37	9'350.0	OECD	0.156 SDR	U.S
<i>Australia AAP Telecom PTY</i>				<i>0.225 SDR</i>	U.S
<i>Australia AxiCorp-Primus</i>				<i>0.150 SDR</i>	U.S
<i>Australia OPTUS</i>				<i>0.112 SDR</i>	U.S
<i>Australia Telstra</i>				<i>0.22 SDR</i>	U.S
<i>Australia TNS-Telegroup</i>				<i>0.075 SDR</i>	U.S
Bermuda	80.68	37.3	High	0.524 SDR	U.S
British Virgin Island	50.63	9.62	Small Island State	0.606 SDR	U.S
Canada	60.23	18'459.5	OECD	0.09 SDR	n.a
Cayman Islands	60.66	19.41	Small Island State	0.606 SDR	U.S
Cyprus	56.97	385.0	High	0.3 SDR	U.K
Denmark	63.30	3'339.0	OECD	0.12 SDR	U.K
Falkland (Malvinas) Is.	76.50	1.53	Small Island State	1 SDR	N.Z
Faroe Islands	52.68	22.9	High	0.12 SDR	(Denmark)
Finland	55.68	2'866.0	OECD	0.12 SDR	U.K
France	57.42	33'700.0	OECD	0.08 SDR	n.a
Germany	54.98	45'200.0	OECD	0.1 SDR	U.K
Gibraltar	64.61	18.63	High	0.34 SDR	U.K
Greece	50.87	5'328.8	OECD	0.35 SDR	U.K
Guernsey	71.60	44.0	High	0.17 SDR	(U.K)
Hong Kong China	56.08	3'646.5	High	0.52 SDR	n.a
Iceland	61.69	167.6	OECD	0.28 SDR	U.K
Jersey	73.39	64.5	High	0.17 SDR	(U.K)
Liechtenstein	64.25	19.92	High	0.22 SDR	U.S
Luxembourg	66.87	245.4	OECD	0.2 SDR	U.S
Monaco	99.00	31.68	High	0.1 SDR	U.K
Netherlands	54.04	8'860.0	OECD	0.08 SDR	U.K
Norway	52.79	2'440.0	OECD	0.09 SDR	U.K
San Marino	68.25	17.06	High	0.33 SDR	U.K
St.Pierre & Miquelon	56.60	3.96	High	0.49 SDR	U.S
Sweden (average)	67.93	6'032.0	OECD	0.088 SDR	US/UK
<i>Sweden Tele2</i>				<i>0.08 SDR</i>	U.S
<i>Sweden Tele8</i>				<i>0.09 SDR</i>	U.S
<i>Sweden Telia AB</i>				<i>0.09 SDR</i>	U.S
<i>Sweden Telenordia AB</i>				<i>0.09 SDR</i>	US/UK
Switzerland	64.21	4'688.0	OECD	0.09 SDR	U.K
Taiwan-China	50.10	10'010.6	High	0.7 SDR	U.K
United Kingdom (aver.)	52.23	30'677.8	OECD	0.17 SDR	U.S
<i>United Kingdom British Telecom</i>				<i>0.15 SDR</i>	U.S
<i>United Kingdom Energis</i>				<i>0.1 SDR</i>	U.S
<i>United Kingdom FaciliCom</i>				<i>0.1 SDR</i>	U.S
<i>United Kingdom Global One</i>				<i>0.1 SDR</i>	U.S
<i>United Kingdom Mercury</i>				<i>0.4 SDR</i>	U.S
United States	64.26	170'568.2	OECD	0.088 SDR	Swed
Virgin Islands (US)	58.07	62.1	High	0.78 SDR	U.K