

CCITT

THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE

**D.1** (11/1988)

SERIES D: GENERAL TARIFF PRINCIPLES –
CHARGING AND ACCOUNTING IN INTERNATIONAL
TELECOMMUNICATIONS SERVICES
PRIVATE LEASED TELECOMMUNICATIONS
FACILITIES

GENERAL PRINCIPLES FOR THE LEASE OF INTERNATIONAL (CONTINENTAL AND INTERCONTINENTAL) PRIVATE TELECOMMUNICATION CIRCUITS

Reedition of CCITT Recommendation D.1 published in the Blue Book, Fascicle II.1 (1988)

#### **NOTES**

- 1 CCITT Recommendation D.1 was published in Fascicle II.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).
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#### **Recommendation D.1**

# GENERAL PRINCIPLES FOR THE LEASE OF INTERNATIONAL (CONTINENTAL AND INTERCONTINENTAL) PRIVATE TELECOMMUNICATION CIRCUITS

#### **Preamble**

This Recommendation sets out the general principles and conditions applicable to all international (continental and intercontinental) private leased telecommunication circuits. The charging in the terminal countries for the national extensions of an international private leased circuit is subject to any regulations that may be applied by the Administrations of those countries. The diagram included as Annex A to this Recommendation, extracted from Recommendation M.1010 [1] relating to the constitution and nomenclature of international private leased circuits and supplemented for tariff requirements, indicates what is to be understood by the terms international private leased circuit and national extension.

# 1 General principles

1.1 The international telecommunication private leased circuit service consists of making one or more international telecommunication circuits available to a customer<sup>1)</sup> for his dedicated use on the terms and conditions which may be set out in a lease agreement between the customer and the Administration of the country at each terminal of the circuit.

In providing this service, account should be taken of:

- a) the provisions of this Recommendation,
- b) such other terms and conditions as may be mutually agreed upon between the Administrations participating in the provision of the particular service arrangement,
- c) the desirability of facilitating the advance of technology and the use of modern methods of operation and management,
- d) the need to meet the specific requirements of customers.
- 1.2 An international private leased circuit transiting one or more countries shall be charged for as if it were one circuit if no intermediate station exists in any transit country to which a customer or user<sup>2)</sup> may have access.
- If, however, a customer or user station is connected to the circuit in any transit country, normally the circuit shall be divided into separate sections for charging purposes, each station being charged for as a separate circuit. Exceptionally, Administrations may agree among themselves to apply a different basis of charging taking into account the provisions of § 3.3 below.
- 1.3 When a private leased circuit has been established, the connection between the terminal stations is set up for the period of the lease in such a way that the international centres at the extremities of the leased circuit do not need to intervene. However, arrangements must be such as to enable the appropriate staff at these centres to perform necessary supervision and maintenance.
- Administrations may temporarily withdraw a private leased circuit from operation in order to perform such tests, adjustments and routine maintenance as is necessary to ensure that the circuit is kept in proper working condition. Administrations shall endeavour to make such a withdrawal only after consultation with the customer and at a time mutually agreeable to all parties.
- 1.5 The leased circuit service is normally authorized in international relations where telecommunication circuits remain available after the needs of the public telecommunication services have been satisfied. However, Administrations should recognize the requirements for leased circuits in their planning.
- 1.6 Administrations reserve the right to withdraw a private leased telecommunication circuit if, in their opinion, this is required in the public interest (for example, because of force majeure or threat of imminent technical harm from the continued operation of the circuit involved). If necessary, because of such conditions, withdrawal may be made at very short notice, without Administrations having to observe the period of notice prescribed in § 2.2 below.

The **customer** is the individual or entity who, or which, leases an international circuit from an Administration and is responsible for payment of all charges or rentals due to that Administration.

The **user** is the individual or entity designated by the customer, individually or by class, as having access to the leased circuit and having such authorization, individually or by class, as may be required by the Administrations concerned.

- 1.7 With the limits fixed by Administrations in each case, private leased circuits may be used only to exchange communications relating to the business of the customer. When the circuit is used to route communications from (to) one or more users other than the customer, these communications must be concerned exclusively with the activity for which the circuit is leased.
- 1.8 Within the limits fixed by Administrations, the customer may derive telecommunication channels from a private leased telephone-type circuit. These channels, or some of them, may be extended by means of other circuits leased by the same customer. The channels so derived must not be sub-leased. The equipment for such sub-division shall be provided, installed and maintained by or at the expense of the customer.
- 1.9 Equipment connected to a private leased circuit must meet the technical conditions laid down by each Administration concerned. Where consultation would assist in expediting type-approval of equipment, Administrations should consult with each other. Moreover, the equipment in customer or user premises should not allow the circuits to be used in conditions other than those authorized.
- 1.10 Administrations shall refuse to provide an international private leased circuit when the customer's proposed activity would be regarded as an infringement of the functions of an Administration in providing telecommunication services to others.
- 1.11 Administrations shall be entitled to take all steps, appropriate in the circumstances, to ensure that the provisions governing the lease of international circuits are respected.
- 1.12 In the event of a violation of these provisions, Administrations reserve the right to cancel the lease of the telecommunication circuit concerned; they must, however, give the customer immediate and adequate notice of their intention to take such action and sufficient opportunity to respond thereto.

#### 2 Duration of the lease, charging, cancellation

- 2.1 Except as provided in § 2.5 below for temporary services, the lease shall last for a minimum of one month.
- 2.2 The lease shall be continued thereafter by tacit agreement until cancelled by either party. Notice of cancellation must normally be given seven days in advance of the effective date of cancellation. However, an Administration may require a different period of notice. The charges for fractional parts of a month beyond the first month shall be in accordance with §§ 2.4.1 and 2.4.2 below.
- 2.3 The lease should normally be payable one month in advance.
- 2.4 In calculating the duration of the lease, one month shall mean one calendar month. Moreover, the day on which the circuit is made available ready for service to the customer, shall not be reckoned. The day on which the circuit is withdrawn shall be reckoned as a full day. However, in cases where customer-provided equipment is necessary for operation of the circuit and the customer equipment is not ready for use, Administrations should take into consideration particular circumstances in determining the date of start of service. Thus, a period of lease covering one month or more is calculated as follows:
  - a) count the number of days beginning on the day following the day on which the circuit was made available until the end of the month;
  - b) thereafter count the number of full calendar months, if any; and
  - c) count the number of service days in the last month, including the day on which the circuit was withdrawn.

# 2.4.1 As regards charging:

- full calendar months are subject to the monthly rental;
- fractions of a month shall be subject to a daily charge equal to 1/30th of the monthly rental.

#### TABLEAU 1/D.1

Life of a lease from the day of availability until the day of withdrawal	Chargeable time	Charge	
30 October - 15 December 30 October not counted 31 October = 1 day November = 1 month 1 - 15 December = 15 days	1 month 16 days	1 monthly rental + 16/30th of this rental	
30 November - 15 January 30 November not counted December = 1 month 1 - 15 January = 15 days	1 month 15 days	1 monthly rental + 15/30th of this rental	
4 January - 10 February 4 January not counted 5 January - 31 January = 27 days 1 February - 10 February = 10 days	37 days	37/30th of monthly rental	

- 2.5 By agreement between the Administrations concerned, a temporary lease service may be granted for a period of less than one month.
- 2.5.1 In calculating the life of a temporary lease, one day shall mean a period of 24 consecutive hours.

The life of a lease should be calculated in multiples of 24 hours, the period starting from the time at which the circuit is made available until the time at which it is withdrawn. If the number of days thus obtained contains a fraction of 24 hours, it should be rounded up to the next whole number.

#### Examples:

Circuit made available on 1 June, at 09.00 hours, cleared on 5 June at 09.00 hours:

 $4 \times 24$  hours, i.e. 4 chargeable days.

Circuit made available on 1 June at 09.00 hours, cleared on 5 June at 11.00 hours:

(4 days + 2/24 day) i.e. 5 chargeable days.

- 2.5.2 In this case (temporary lease), the charges shall be calculated as follows:
  - a) for the first day of lease: 20% of the monthly rental;
  - b) for each subsequent day from the second day: 3.33% (1/30) of the monthly rental, the total amount per month paid by the customer in no case being more than the monthly rental.
- 2.6 The leases considered in §§ 2.1 and 2.5 above are full-time leases, i.e. for 24 hours per day.
- 2.6.1 However the Administrations concerned may in some cases permit part-time leases.
- 2.6.2 The conditions of lease and the charges shall then be fixed by agreement between the Administrations.

## 3 Collection of charges; accounting

- 3.1 When the private leased circuit does not pass through a transit country, two methods are generally recognized:
- 3.1.1 Each Administration of the two terminal countries collects its own share of the international private leased circuit rental from the customer resident in its own country.
- 3.1.2 Subject to mutual agreement by Administrations concerned, either terminal Administration may collect the rental for the private leased circuit; in this case, the collecting Administration credits the other terminal Administration through the international accounts with the share due to it.

- 3.2 If the private leased circuit passes through one or more transit countries, the terminal Administrations shall agree with the transit Administration(s) on the method to be adopted for collecting and international accounting of the charges due to it (them).
- 3.3 When leasing a series of circuits forming a private leased circuit network, the terminal and transit Administrations involved may agree upon an equitable division of revenues for the private leased circuits and should endeavour to grant the best possible charging conditions to the customer.

#### 4 Additional charge for special routings

If a customer requests the Administrations to provide a circuit by means of a specific routing other than that planned by them, these Administrations shall have the right to levy an additional charge<sup>3)</sup> which takes into consideration the additional costs involved. An additional charge would be applicable where the request was made for diversity or security reasons, but not where an existing circuit fails to meet specifications according to relevant CCITT Recommendations.

### 5 Allowances for interruptions

- 5.1 In the event of an interruption of a private leased circuit for which a customer or user is not responsible, an allowance shall normally be made to the customer if there has been an initial period of interruption of:
  - a continental circuit for not less than 180 consecutive minutes,<sup>4)</sup>
  - an intercontinental circuit for not less than 60 consecutive minutes.
  - a) Any interruption or operating trouble shall be promptly reported by the customer or user. However, in cases of facility failures known to the Administration such report may not be required.
  - b) Any requirement that customers specifically request allowances should be in accordance with the practices of each Administration concerned.
  - c) For the calculation of the allowance, the reporting time shall normally be the starting time for the duration of the interruption. If, however, a report is not required because the facility failure is known to the Administration, the time of the failure is taken as starting time for calculating the allowance.
- 5.2 For each hour of the initial period of interruption mentioned in § 5.1 above and for each subsequent consecutive hourly period or fraction of at least 30 minutes, the amount of the allowance should be equivalent to 1/24th of a day's rental for a full-time circuit.

In the case of circuits leased on a part-time basis as described in § 2.6 above, the allowance for interruption shall be *pro rata* to the number of hours of the lease per day.

- 5.3 For the purpose of computing allowances for interruptions, a month is considered to be 30 days. When the lease is for less than one month, the charge for a day's lease shall be calculated by dividing the total rental by the number of days reckoned in the lease.
- 5.4 Administrations need not consider requests for allowances for interruptions resulting from unfavourable propagation conditions on HF radio circuits.
- 5.5 In principle, an allowance should be given for all components of the through circuit between the customers' operating terminals regardless of where the interruption occurs, except as provided for in § 5.7 below. Where the interrupted circuit forms part of a private leased circuit network, the allowance would apply only to the affected circuit.

*Note* – It is recognized that some Administrations are in a position to make allowances only in respect of failures in the intercontinental portion of private leased circuits.

5.6 Requests for refund of charges for the use of public telecommunication services during the period when the private leased circuit is not available shall not be considered.

<sup>3)</sup> In continental relations, Administrations may consider that an additional charge in the range of 20-25% of the normal rental might be appropriate.

<sup>&</sup>lt;sup>4)</sup> In cases where the rental charges for continental circuits are roughly at the same level as charges for intercontinental circuits, Administrations may apply the initial time limit of 60 minutes in determining the interruption periods on continental circuits for which an allowance should be made.

- 5.7 No allowance shall be granted when an interruption (regardless of its duration) or the non-operation of the private leased circuit, is due to the negligence of the customer or to a fault of equipment provided by the customer or user for which the Administration is not responsible.
- 5.8 Normally, no allowance shall be granted when a private leased circuit is withdrawn in order for Administrations to perform tests, adjustments and routine maintenance as provided in § 1.4 above.

#### 6 Private leased circuit network

- 6.1 Recognizing the principle that (circuits and message) switching and transmission are the exclusive function of Administrations, the establishment of a private leased circuit network may be authorized to meet the specific technical and operational requirements of certain customers, if requirements cannot be met by the public network or by specialized networks set up by Administrations as in § 6.2 below.
- 6.2 In this connection, Administrations reserve the right to provide specialized networks to meet specific requirements of customers.
- 6.3 The authorization in § 6.1 above is subject to prior consultation and agreement between the Administrations concerned as to conformity of the proposed network with the provisions in this Recommendation.
- 6.4 The establishment of a private leased circuit network is subject upon demand to provision of the following information to all Administrations concerned (in this connection one Administration may, after consulting with other Administrations concerned, act as a coordinator for the supply of this information to those Administrations):
  - a) technical equipment to be installed for the operation of the network and the mode of operation of the network, with all the necessary details in order to ensure its proper technical operation;
  - b) the list of international circuits forming the network to be leased by the customer;
  - c) the scope of usage for which the circuits are required.

*Note* – For example, information required by Administrations may include details on the following points:

- i) intended usage and mode of operation:
  - telephony, telegraphy, data transmission, facsimile or combined usage;
  - duplex or semi-duplex operation; any subdivision of the circuit into several channels;
  - transmission speed or data signalling rates;
- ii) intended scope of usage:
  - exclusive use by the customer or use in conjunction with other users, possibility of access<sup>5)</sup> to the public networks.
- 6.5 No substantive change may be made to the basic communications facilities or to the mode of operation or to the scope of usage of a private leased circuit network without the prior concurrence of Administrations leasing the circuits on which such changes are to be made. A substantive change is one which results:
  - in the reconfiguration of a private leased circuit network involving an alteration in the scope of usage of its circuits, or
  - in an increase in the transmission speed relative to the information originally provided by the customer to the Administrations concerned.
- 6.6 The interconnection of two or more private leased circuit networks shall not be permitted without the prior agreement of the Administrations concerned.
- 6.7 In certain circumstances Administrations may, after consultation with the customer, require that some of the equipment (e.g.: switching, concentration or multiplexing) to be used as part of the international private leased circuit network concerned:
  - a) be located on the premises of the Administration, and/or
  - b) be provided by it.

The term *access* covers the cases of direct physical interconnection (e.g., via private switching equipment) and of transfer of information by means of data processing or transmitting devices (computers, multiplexers, concentrators, message switching equipment and possibly manual transfer of torn tape or other types of transfer).

In such cases, the customer shall have a terminal station located on his own premises in the country in which this equipment is installed.

6.8 Administrations are not obliged to accept any responsibility for the end-to-end quality of transmissions over connected circuits which comprise a private leased circuit network.

*Note* – Administrations which otherwise accept responsibility for the quality of transmission over connected circuits which comprise a private leased circuit network need not do so for portions of the network which they do not provide or which are not operated within the applicable technical requirements for such connected use.

6.9 In addition to the provision in the present § 6, all of the general principles in § 1 above apply in the case of a private leased circuit network.

## 7 Use of public networks in conjunction with international private leased circuits

- 7.1 *General principles*
- 7.1.1 Use of public networks (telex, telephone, data) for transmitting or receiving information from or to international private leased circuits may be authorized subject to the condition that the Administrations concerned shall consult and agree on the extent to which such use may be permitted.
- 7.1.2 If the national law or established practices of an Administration participating in the establishment of the service do not allow access, the relevant Administration has the right to refuse such access on its side.
- 7.1.3 An international private leased circuit may be allowed access to the public network, provided that:
  - a) this access shall be made on the customer's premises except in the cases listed in § 6.7 above;
  - b) all information exchanged over a private leased circuit relates solely to the activities for which the circuit has been leased;
  - c) such information is exchanged only with public network subscribers nominated by the customer and approved by the Administrations concerned. Upon demand of any individual Administration, a complete list of nominated subscribers will be made available, taking into account national law or established practices including those with respect to right of privacy.
- 7.1.4 In addition to the private leased circuit charges, the customer (or subscriber) must pay the normal rate for the use of the public network service.
- 7.1.5 Administrations reserve the right to levy special charges for allowing the customer access to the public networks.
- 7.1.6 Administrations will not consider requests for interruption allowances for non-operation of a private leased circuit resulting from failures in public network facilities to which the private leased circuit has access.
- 7.1.7 Administrations are not obliged to guarantee the quality of the transmission of calls to or from users on the public network over a leased circuit.
- 7.2 Additional principles applicable to access of an international private leased circuit to the public telex network
- 7.2.1 In principle, access to the public telex network is allowed at only one terminal of the international private leased circuit. Nevertheless, by agreement among the Administrations concerned, access to the public telex network may be extended to both terminals of such a circuit.
- 7.2.2 Moreover, in principle, access to the public telex network is limited to communications exchanged with subscribers in the country in which the international private leased circuit terminates. By agreement among the Administrations concerned, in providing the leased service as well as the public service, an international private leased circuit may have access to subscribers of the telex networks outside the national territory in which such a circuit terminates.
- 7.3 Additional principles applicable to access of an international private leased circuit to the public telephone network
- 7.3.1 Access to the public telephone network may be allowed at one or the other terminals of the circuit, but not simultaneously at both terminals, and is strictly limited to the subscribers of the national public network in the country where the circuit terminates.

# 8 Use of private leased circuits in conjunction with computers (data processing centres) operated by customers and providing data processing services to others

- 8.1 Private leased circuits may be used in conjunction with computers (data processing centres) operated by customers and providing data processing services to others, provided that the conditions set out in §§ 8.2, 8.3 and 8.4 below are fulfilled.
- 8.2 The function of a computer used for data processing may depend upon the receipt of information partly from one user and partly from another. Moreover, the computer at a data processing centre might be used to transmit to one user intelligence which had been derived from the processing of basic data received from the same or from another user. Data processing involves the use of the computer for a combination of operations such as calculating data, merging, sorting, and so on, in accordance with programmed instructions, as distinguished from circuit, message or packet switching.
- 8.3 If a private leased circuit terminates at one end in a data processing centre, the other end may be allowed access to the public networks or to other private leased circuits, subject to the following reservations:
  - a) leased circuits connecting users with a data processing centre may not be used for the exchange of information between user terminals either directly or on a *store and forward* basis (see also § 8.2 above);
  - b) the transmission of messages between users having access to a data processing centre shall not be permitted through that data processing centre;
  - the list of users thus connected or having access through the public networks must, upon demand, be communicated for agreement to the Administrations of the countries of residence of these users. Such information shall be held in strict confidence, taking into account national law or established practices including those with respect to right of privacy;
  - d) the customer shall not be permitted to operate in the manner of an Administration by providing telecommunication services to others.
- 8.4 In addition to the provisions of the present § 8, all of the provisions in § 7 above apply in the case of a private leased circuit which terminates at one end in a data processing centre and has access at the other end to the public network.

#### ANNEX A (to Recommendation D.1) International private circuit International link National extension National extensio National line International line National line Terminal Terminal (composed of one or more (composed of one or more (composed of one or more national circuit sections) circuit sections) circuit sections) section Customer's Terminat Terminal Termina Terminal Customer's international or user's international national centre centre premises centre premises CCITT - 37002 Circuit test points Customer's or user's installation Junction point of the international leased circuit and

Note - Figure taken from Recommendation M.1010 [1], with the addition of the term national extension for purposes of charging.

# FIGURE A-1/D.1 Constitution of international private telecommunication circuits

	Reference
[1]	CCITT Recommendation Constitution and nomenclature of international leased circuits, Rec. M.1010.

# ITU-T RECOMMENDATIONS SERIES Series A Organization of the work of the ITU-T Series B Means of expression: definitions, symbols, classification Series C General telecommunication statistics 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 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 TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits Series N Maintenance: international sound programme and television transmission circuits Series O Specifications of measuring equipment Series P Telephone transmission quality, telephone installations, local line networks 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 and open system communications Series Y Global information infrastructure and Internet protocol aspects Series Z Languages and general software aspects for telecommunication systems