

# Telecom Regulatory Authority of India

New Delhi

May 28, 1999

In exercise of the powers conferred upon it under section 36 read with clauses (c) and (d) of sub-section (1) of section 11 of the Telecom Regulatory Authority of India Act, 1997 to ensure effective interconnection between different service providers and to regulate arrangements amongst service providers of sharing their revenue derived from providing telecommunication services, the Telecom Regulatory Authority of India hereby makes the following Regulation.

## **THE TELECOMMUNICATION INTERCONNECTION (CHARGES AND REVENUE SHARING) REGULATION 1999 (1 of 1999)**

### **Section I Title, Extent and Commencement**

1. Short title, extent and commencement:
  - i. This Regulation shall be called “The Telecommunication Interconnection (Charges and Revenue Sharing) Regulation 1999.”
  - ii. The Regulation shall cover arrangements among service providers for interconnection charges and revenue sharing, for all Telecommunication Services throughout the territory of India, as also those originating in India and terminating outside India.
  - iii. The Regulation shall be deemed to have come into force with effect from May 1, 1999.

### **Section II Definitions**

2. In this Regulation, unless the context otherwise requires:
  - i. “Act” means the Telecom Regulatory Authority Act of India, 1997.
  - ii. “Authority” means the Telecom Regulatory Authority of India.
  - iii. “Basic Telecommunication Services” mean services derived from Public Switched Telephone Network (PSTN).
  - iv. “Ceiling(s)” mean(s) the upper limit(s) for interconnection charge for telecommunication services as may be specified by the Authority from time to time.
  - v. “Domestic Long Distance Telecommunication Service” or DLD means the telecommunication services required to connect one local area of a public telecommunication network to another within the territorial limits of India so as to allow for transmission of voice and non-voice signals across different geographical areas.

- vi. “Floor” means the lower limit of interconnection charges for a telecommunication service as may be specified by the Authority from time to time below which such charges may not be offered.
- vii. “Forbearance” denotes that the Authority has not, for the time being, notified any interconnection charge or revenue sharing arrangement for a particular telecommunication service and the service provider is free to fix any charge for such service.
- viii. “Interconnection” means the commercial and technical arrangements under which service providers connect their equipment, networks and services to enable their customers to have access to the customers, services and networks of other services providers.
- xi. “Interconnection Charge” means the charge for interconnection by an interconnection provider to an interconnection seeker.
- x. “Interconnection Provider” means the service provider to whose network an interconnection is sought for providing telecommunication services.
- xi. “Interconnection Seeker” means the service provider who seeks interconnection to the network of the interconnection provider.
- xii. “International Long Distance Telecommunication Service” means telecommunication services required to connect a local area of a public telecommunication network within India to a local area of a public telecommunication network in another country so as to allow for the transmission of voice and non-voice signals.
- xiii. “International Subscriber Dialing” or ISD means direct interconnection between an end user in India with another end user in another country by means of direct dialing through public networks.
- xiv. “Leased Circuits” mean telecommunication facilities leased to subscribers or service providers to provide for technology transparent transmission capacity between network termination points which the user can control as part of the leased circuit provision and which may also include systems allowing flexible use of leased circuit bandwidth.
- xv. “Non-discrimination in interconnection charge” means that service providers shall not, in the matter of interconnection charges, discriminate between service providers except on the basis of substantial cost-differential, and that too only to the extent justified by such cost differential.
- xvi. “Order” means the Telecommunication Tariff Order 1999.
- xvii. “Originating Network” means the network to which an originator of a telecommunication message is proximately connected to.
- xviii. “Originating/Transit/Terminating Service Provider” means the service provider whose network is used for originating/transit/terminating a telecommunication message.

- xix. “Port Charges” mean charges payable by the interconnection seeker to the interconnection provider for terminating the interconnection links on the network interface of the interconnection provider.
- xx. “Regulation” means The Telecommunication Interconnection (Charges and Revenue Sharing) Regulation 1999.
- xxi. “Reporting Requirement” means the obligation of a service provider to report to the Authority at least 45 working days before implementing any new interconnection charge and revenue sharing arrangement for telecommunication services under this Regulation and any changes thereafter.
- xxii. “Set Up Costs Of Interconnection” means the initial cost of any engineering work needed to provide the specific interconnection facilities requested.
- xxiii. “Subscriber Trunk Dialing” or STD means direct interconnection between two end users within India by means of direct dialing through public networks.
- xxiv. “Terminating Network” means the network to which a receiver of a telecommunication message is proximately connected to.
- xxv. “Transit Network” means the network through which telecommunication messages from originating networks or other transit networks are transited and delivered to terminating or other transit networks.
- xxvi. “Usage Charge” means the charge by a service provider for carriage/delivery/ collection of telecommunication messages in its network.
- xxvii. Words and expressions used in this Regulation and not defined but defined in the Act shall have the same meanings respectively assigned to them in the Act.

### **Section III**

#### **3. Interconnection Charges**

- i. Interconnection charges shall be cost based, unless as may be specified otherwise.
- ii. For determining cost based interconnection charges, the main basis shall be “incremental or additional” costs directly attributable to the provision of interconnection by the interconnection provider.
- iii. No service provider shall discriminate between service providers in the matter of levying of charges for interconnection.

Provided that a different charge may be levied if justified on the basis of a substantial difference in costs incurred for providing that particular interconnection.

- iv. No service provider shall be charged for any interconnection facility it does not seek or require.

Provided that if interconnection facility cannot be provided in the form that is sought or

required by the interconnection seeker, the issue may be decided mutually between the seeker and provider of interconnection. In case such mutual agreement is not possible, the matter may be reported to the Authority for a decision. The interconnection provider shall inform the interconnection seeker within 45 days of the request for interconnection facilities whether the facilities can be provided in the form sought or required by the interconnection seeker.

- v. Charges for certain elements of the network used to provide interconnection are specified in the Schedules to this Regulation. Interconnection charges in respect of leased circuits and internet port charges shall be the same as the tariffs for these services specified, respectively, in Schedules IV and VI of the Telecommunication Tariff Order 1999.
- vi. Unless specifically so provided, the Authority has forborne with respect to interconnection charges.
- vii. Where the Authority has, for the time being, forborne from specifying interconnection charges, interconnection seekers and providers shall mutually decide on such charges.
- viii. Interconnection charges mutually agreed among interconnection seeker and provider shall be based on the principles enunciated in this Section.
- ix. Where mutual agreement for interconnection charge cannot be reached within three months of initiating such a process for charges with respect to which the Authority has forborne, the Authority may intervene to settle the matter *suo moto* or on the application of either party.

#### **Section IV**

#### **4. Revenue Sharing Arrangements**

- i. Any revenue sharing among interconnection seeker and interconnection provider shall take place out of the proceeds of the amount payable by the subscriber for obtaining the service which involves the usage of the network of the interconnection provider.
- ii. Unless specifically provided in the Schedules to this Regulation, the Authority forebears with respect to revenue sharing arrangements.
- iii. Where the Authority has, for the time being, forborne from specifying revenue sharing arrangements for any telecommunication service or part thereof, service providers shall mutually decide on such arrangements.
- iv. Where mutual agreement for revenue sharing cannot be reached within three months of initiating such a process for revenue sharing with respect to which the Authority has forborne, the Authority may intervene to settle the matter *suo moto* or on the application of either party.

#### **Section V**

#### **5. Reporting Requirement**

- i. All service providers shall comply with the Reporting Requirement in respect of interconnection charges and revenue sharing arrangements specified for the first time under this Regulation, as also all subsequent changes. This includes interconnection charges and revenue sharing

arrangements that are decided on a mutual basis among service providers.

- ii. The service provider may implement the proposed interconnection charges and revenue sharing arrangements after the mandatory notice period of 45 working days, unless the Authority within such period directs otherwise.

Except that an additional period of 45 days is provided for interconnection charges and revenue sharing arrangements to be reported to the Authority for the first time after the implementation of this Regulation.

- iii. When an interconnection provider informs the interconnection seeker that it cannot provide interconnection as sought for by the latter, the interconnection seeker, within 45 days of being so informed, may approach the Authority for seeking its intervention.
- (iv) No service provider shall alter any interconnection charge or revenue sharing arrangement, or any part thereof, without complying with the Reporting Requirement.

## **Section VI**

### **6. Review**

- i. The Authority may, from time to time, review and modify an interconnection charge and/or revenue sharing arrangements.
- ii. The Authority may also at any time, on reference from any affected party, and for good and sufficient reasons, review and modify any interconnection charge or revenue sharing arrangements.

## **Section VII**

### **7. Explanatory Memorandum**

This Regulation contains at Annex A, an explanatory memorandum to provide clarity and transparency to matters covered under this Regulation.

## **Section VIII Residuary Clauses**

### **8. Over-riding Effect**

Provisions of this Regulation in respect of interconnection charges and revenue sharing shall have over-riding effect over the terms and conditions of the license of a service provider, as also any conditions or charges prescribed by an originating/transit/terminating service provider.

### **9. Interpretation**

In case of dispute regarding interpretation of any of the provisions of this Regulation, the decision of the Authority shall be final and binding.

**(HARSHA VARDHANA SINGH)**

**ECONOMIC ADVISER**

## SCHEDULE I INTERCONNECTION CHARGE AND REVENUE SHARING

<b><u>ITEM</u></b>	<b>REVENUE SHARING FOR BASIC SERVICES</b>
<b><u>(1) Date of Implementation</u></b>	01 May, 1999
<b><u>(2) Coverage</u></b>	Calls originating in a basic service provider's network and transmitted through or terminated in another basic service provider's network.
<b><u>(3) Local calls</u></b>	Bill and keep for each service provider.
<b><u>(4) Domestic long distance calls (STD calls)</u></b>	<p>The originating/transit service provider to pay Rs. 0.48 per unit of measured call for traffic delivered from its network to the network of the transit/terminating service provider for the call units measured at the point of interconnection for its further carriage from the point of interconnection to destination, based on the STD pulse rate.</p> <p>Provided no such charge shall be payable if the point of interconnection is at the destination Short Distance Charging Area (SDCA) and also provided that no such charge will be payable if the terminating service provider requests that the call be handed over by the originating/transit service provider at an SDCA other than the destination SDCA.</p>
<b><u>(5) International calls</u></b>	<p>The originating service provider to pay Rs. 0.66 per unit measured call to the transit service provider (at present the Department of Telecommunications), for the call units to be measured at the point of interconnection.</p> <p><u>Notes:</u></p> <ol style="list-style-type: none"><li>a. "Local calls" are calls which originate from subscribers of a service provider's network/exchange system in a SDCA and terminate either (i) within the same SDCA or (ii) in the contiguous telephone exchange system of the adjacent SDCA, provided these are delivered/handed over to another service provider's network in the destination SDCA only.</li><li>b. For domestic long distance calls, number of units of calls for payment at Rs. 0.48 per metered call to be calculated based on the STD tariff pulse for the radial distance between the point of interconnection and the Gateway Tax where the call is subsequently delivered for further carriage/termination.</li><li>c. No revenue is to be shared between basic service provider and cellular mobile service provider for calls originating from the</li></ol>

**SCHEDULE II INTERCONNECTION CHARGE AND REVENUE SHARING**

<b><u>ITEM</u></b>	<b>REVENUE SHARING FOR CELLULAR MOBILE</b>
<b><u>(1) Date of Implementation</u></b>	01 May, 1999
<b><u>(2) Coverage</u></b>	Calls originating in a cellular mobile service provider's network and transmitted through or terminated in another service provider's network.
<b><u>(3) Local calls from cellular mobile to basic service subscriber</u></b>	Payment to basic service provider at the rate of Rs. 1.20 per metered call, with number of metered calls measured at the pulse rate applicable to a basic service local call.
<b><u>(4) Domestic Long distance calls from cellular mobile to basic service subscriber</u></b>	Payment to basic service provider at a rate applicable to domestic long distance calls. The charge shall be Rs. 1.20 per metered call, with the number of metered calls measured at the pulse rate applicable to basic service long distance calls, with the chargeable distance equal to the distance of the call carried by the basic service provider for an equivalent STD from point of interconnection to destination.
<b><u>(5) International calls from cellular mobile</u></b>	Payment to basic service provider at a rate applicable to international calls. The charge shall be Rs. 1.20 per metered call, with the number of metered calls measured at the point of interconnection at a pulse rate applicable to an equivalent international call made by a basic service subscriber.
<b><u>(6) For calls from cellular mobile to cellular mobile</u></b>	For local/domestic long distance calls carried (partly) by basic service provider, an amount to be paid to basic service provider at a rate applicable to local/domestic long distance call. The amount to be calculated on the basis of the corresponding conditions specified in Item 3/Item 4 above, i.e. Rs. 1.20 per metered call, pulse rate applicable to basic service local/long distance calls, and for long distance calls the chargeable distance equal to the distance of the call carried by the basic service provider for an equivalent

	STD call from point of interconnection to destination.
	<p><u>Notes:</u></p> <p>The definition of “local calls” to ascertain revenue sharing with basic service providers for calls carried by them is the same as in note (a) in Schedule I.</p> <p>For domestic long distance calls from cellular mobile to basic service subscriber, number of units of measured calls for determining the amount of revenue payable to basic service provider to be calculated as the number of such calls measured at the basic service provider’s Gateway TAX up to the destination Short Distance Charging Area (SDCA).</p> <p>For domestic long distance calls from cellular mobile to cellular mobile carried by basic service provider, number of call units to be paid to the basic service provider at Rs. 1.20 per metered call to be calculated based on the radial distance between the Gateway TAX at the point of interconnection where the call is</p>

### **SCHEDULE III INTERCONNECTION CHARGE AND REVENUE SHARING**

<b><u>ITEM</u></b>	<b><u>PORT CHARGES</u></b>
<b><u>(1) Date of Implementation</u></b>	01 May, 1999
<b><u>(2) Coverage</u></b>	Charges for ports provided by service providers (other than the port charges for internet, which are specified in Schedule VI of the Telecommunication Tariff Act 1998.)
<b><u>(3) Port Charges</u></b>	- - <u>Number of PCMs Annual Charge</u> <u>(Ceiling of Rs. per port)</u>



	Up to 8 37,000
	Above 8 and 16,000
	up to 32
	Above 32 9,000

## **ANNEX A EXPLANATORY MEMORANDUM**

### **A. INTRODUCTION**

- 1 This Regulation is a result of a consultation process which began in November 1997 with the release of a consultation paper that addressed concepts, principles and methodologies relating to telecom tariffs and commercial aspects of interconnection. After extensive discussions, some specific proposals for interconnection charges and revenue sharing arrangements were made in another consultation paper released on 9 September, 1998. These too were subject to extensive and intensive discussions with various service providers and other interested parties, including several national and international experts in the area.
- 2 A comprehensive framework of regulations for interconnection involves both commercial and other aspects. This Regulation deals only with interconnection charges and revenue sharing arrangements. Other, complementary, regulations and directives will be addressed elsewhere by the Authority.
- 3 The purpose of this Memorandum is to lend clarity and transparency to the main rules and schedules of this Regulation, as also to explain that for some interconnection charges, tariffs specified by the Authority in its Telecommunication Tariff Order 1999 are the relevant charges.
- 4 The determination of interconnection charges and revenue sharing should take into account both the prevailing situation in the telecommunication sector in India, as well as the prospective liberalization in that sector, as is reflected in the National Telecom Policy 1999. These policy changes, as well as technological developments and their effects of costs, and application of new tariff system for certain services (e.g. introduction of calling party pays principle in the cellular mobile segment of the market) could alter the cost basis for the interconnection charge and revenue sharing arrangements that have been specified in this Regulation.
- 5 Thus, this Regulation contains certain elements which will change with time, following an analysis of more detailed data on network components. Such a process had also been indicated in the Authority's second consultation paper (Consultation Paper No. 98/3, dated September 9, 1998), which stated that:
- 6 *“Technological and commercial developments in various segments of the telecom markets, e.g. leased lines, affect the basis for determining interconnection charges. In addition to these changes, more detailed and up-to-date information on costs will be*

available over time, which will provide a better insight into the basis for determining interconnection charges. A review of interconnection charges would therefore be required in due time. Hence the proposals on interconnection prices, other than those relating to general principles, should be viewed as interim measures to be reviewed and adjusted, if required.” (see Chapter VIII, page 44 of the second consultation paper)

- 6 The Authority is preparing a consultation paper on access/carriage charge regime. Access/carriage charges will provide for an efficient interconnection regime in a situation with multiple service providers interconnecting with each other, i.e. the telecom environment envisaged in the National Telecom Policy 1999.
- 7 Work is also underway in the Authority for preparing a consultation paper on accounting separation for telecommunication service providers. Implementation of accounting separation is very important for determining cost based interconnection charges and revenue sharing arrangements, but this is a time consuming process. The Authority’s consultation paper on access/carriage charges will take into account certain aspects of accounting separation in order to determine an access/carriage charge regime in the near future. Any further refinements will be made, if required, when the accounting separation exercise provides more detailed information.

## **B. SCOPE OF CERTAIN TERMS USED IN THE REGULATION**

- 8 The payment by any service provider for connection and use of the network of another service provider is conceptually divided as under:
  - **set-up costs**, i.e. all costs required for initially linking up two networks and making that link operational (including inputs such as fibre links, ports, building space and any up-gradation of equipment, as well as software required to make the interconnection operational).
  - **interconnection charges** are the (recurring) amounts payable for the set-up costs;
  - **usage charges** are payments for use of the network for transmission of telecommunications messages by the subscriber of the interconnection seeker. The mode of payment of such charges includes, *inter alia*, revenue sharing arrangements

## **C. INTERCONNECTION CHARGES**

### **(a) Basis**

- 1 Among the main points that emerged during the consultation process was that interconnection pricing should be
  - based mainly on incremental or additional costs directly attributable to provision of interconnection, and
  - applied on a non-discriminatory basis.
- 2 The Regulation has specified these principles as the main basis for determining interconnection charges. These principles will also figure prominently in the work of the Authority on determination of access/carriage charges.

**(b). Interconnection Charges specified by the Authority**

- 2 The Authority has specified three types of interconnection charges, i.e.:
  - leased circuits (same as in Schedule IV of the Telecommunication Tariff Order 1999);
  - port charges for internet (same as in Schedule VI of the Telecommunication Tariff Order 1999);
  - port charges for connection to exchanges of service providers (Schedule III of this Regulation), other than above-mentioned port charges for internet.
- 1 These charges are based mainly on costs. As mentioned in the second consultation paper as well as this Regulation, they will be subject to periodic review and changes, as appropriate.
  - 2 Interconnection charges for leased circuits are the same as the corresponding tariffs for leased circuits specified in Schedule IV of the Telecommunication Tariff Order 1999. The same (i.e. tariffs applied as interconnection charges) is also valid for internet port charges. Tariffs for internet leased circuits (port charges) are specified in Schedule VI of the Telecommunication Tariff Order 1999.
  - 3 Schedule VI of the Telecommunication Tariff Order 1999 does not specifically address tariffs for international leased lines, because these tariffs are subject to forbearance in that Schedule. This is also applicable to interconnection charges for international leased circuits. The Authority plans to conduct a detailed analysis for specifying the values for international leased line charges both as tariffs and interconnection charges.
  - 4 Schedule III of this Regulation specifies port charges to be charged by service providers. A comment during consultation was that for determining port charges, there should be a possibility of cumulating the demands for ports made at different points of time by any interconnection seeker. Such cumulation would imply a lower charge per port than the charges applied individually to the different demands for ports. In contrast, those supplying ports were of the view that each separate demand for ports involved additional expenditure and should therefore be charged separately, without aggregating it with the previous/later demand for ports by any interconnection seeker.
  - 5 The Authority has considered these points in detail, including the additionality of investment for providing ports. It has concluded that a simplified charging solution is an appropriate means of addressing this problem. The Authority further recognizes that equipment prices (that underlie the calculation of port charges) are changing, and there will soon be a need to review the amounts presently specified for port charges. Bearing these in mind, the Authority has decided to specify only three port charges by linking them to three categories of demand for ports:
    - up to eight PCMs (small users);
    - above eight and up to sixty-four PCMs (medium users);
    - above sixty-four PCMs (large users).

- 1 Interconnection seekers can assess their potential demand over a planning period, and decide which of the three categories would apply to them. The attempt here has been to provide a reasonably wide coverage within each of the three different usage categories corresponding to different levels of demand for ports. This will help overcome the problems that arise in tackling the issue of cumulating demands made at different periods.
- 2 For each of these three categories mentioned above, Schedule III specifies a corresponding average annual charge per port. These charges are derived on the basis of cost based charges for units of eight PCMs, starting from eight PCMs and going up to 256 PCMs. The method for calculating these cost based charges is the same as mentioned in the second consultation paper.
- 3 The monthly rental of Rs. 600 specified for cellular mobile telecommunication services takes into account the use of ports in a mobile switching centre to provide connectivity with PSTN. The rental for cellular mobile is thus based on total capital cost incurred in providing the service, which includes the investment on ports. Further the air time charge of Rs. 6 per minute provides for the total operating and maintenance costs incurred on the asset, including the ports of a mobile switching centre. Thus charges for the port of a mobile switching centre used for providing connectivity to the PSTN need not be paid for, having already been taken into account in costing as explained earlier.
- 4 The above aspect will, however, be further addressed by the Authority in the context of determination of “access/carriage charges”. The new National Telecom Policy permits interconnectivity of network of a cellular mobile service provider with that of any other type of service provider, including the network of another cellular mobile service provider. Sharing of infrastructure is also permitted. The exercise will, inter alia, provide a clear basis for determination of port charges payable to cellular mobile service providers as they make additional investment.

#### **D. REVENUE SHARING ARRANGEMENTS**

- 5 Schedule I of this Regulation specifies revenue sharing arrangements for calls originating from basic service provider’s network and carried by or terminated in the network of another basic service provider.
- 6 Schedule II specifies revenue sharing arrangements for calls originating from the network of a cellular mobile service provider and carried by or terminated in another service provider’s network.
- 7 For Schedule I, the second consultation paper had proposed that revenue be shared as follows between new service provider and the incumbent:

- for domestic long distance calls, relevant revenue to be shared in the ratio 60:40 between the originating service provider and the transit service provider;
- for international calls, this ratio to be 45:55;
- no revenue sharing with the terminating service provider.

1 These ratios had been proposed, among others, for reasons that with the overall tariff changes for PSTN service providers, the prevailing revenue situation for either the incumbent or the new entrant should not be adversely affected in a major way. The ratios proposed were hence based on the principle that there should not be an undue burden on any of the interconnecting service providers. Thus, in the prevailing system of revenue sharing, it was proposed that the above-mentioned ratios (which broadly corresponded to a call charge of Rs. 1.25 per measured call) apply to the tariff rates as applicable to different calls.

2 In the second consultation paper, the nature of the change in the prevailing system of revenue sharing for basic telecom was summarized as follows:

*“In view of the fact that proposed prices for various services are in the form of price caps, revenue shares are suggested, inter alia, for basic telecom operators. This alters the present system of revenue sharing. For example, in the basic services sector where the current condition requires a payment of specific amounts per pulse (Rs. 0.50 for long distance, and Rs. 0.70 for international), revenue shares of 60:40 and 45:55, respectively, for long distance and international call revenue are proposed for new entrant and DOT [for a call originating from the network of the new entrant and carried by DOT].”* (Chapter I, page xiii)

3 The second consultation paper had proposed no revenue sharing for the terminating service provider because of the technical difficulty in implementing the proposed arrangement, and the premise that there would likely be similar number of calls originating and terminating for each new service provider.

4 In its comments, the DOT agreed to the proposed revenue shares, provided that they applied to the rate of Rs. 1.30 per PSTN call. It should be recalled that the second consultation paper had proposed a call charge of Rs. 1.30 per metered call, which was reduced by the Telecommunication Tariff Order 1999 to an upper limit of Rs. 1.20 per metered call. To quote from the DOT’s comments:

*“TRAI’s proposed revenue shares of 60:40 and 45:55 respectively for STD and ISD revenue between private operators and DOT need to be made applicable on the highest call tariff, i.e. Rs. 1.30 for PSTN call and Rs. 1.50 for ISDN call”*

5 In contrast to the DOT, the Association of Basic Service Operators (ABTO) commented that the new entrants should get 75 per cent of the relevant revenue, with 25 per cent to be given to the DOT. This claim was based on the argument that DOT should pay for all STD and ISD calls handed over to the new entrant, including those which are handed over in the local call area. For ISD calls, the revenue share includes

- the revenue paid/received by DOT to/from foreign carriers within the framework of the accounting rate mechanism. On this basis, the ABTO suggested that the relevant ISD revenue should be shared among new entrant and DOT in the ratio of 75:25.
- 6 To begin with, it must be re-iterated that the revenue sharing arrangements specified in this Regulation are interim, and are not based on detailed cost analysis. Application of an access/carriage charge regime will provide more logically tenable usage charges. That requires a detailed assessment of the underlying costs. It would, moreover, imply major changes to the existing revenue sharing arrangements, and hence an analysis is required also of the revenue implications for service providers. This is so also for suggestions made by ABTO regarding revenue sharing principles. Till any access/carriage charge regime is implemented, a system of revenue sharing must be in place to give effect to the commercial relationships arising through interconnection.
- 7 As mentioned above, an important concern for determining the revenue shares for basic services was that different service providers (incumbent or the new entrant) should bear in a balanced manner the consequences of any tariff change that alters the revenue sharing arrangement. Hence, even though the tariffs finally specified in the Telecommunication Tariff Order 1999 are different from those proposed in the consultation paper (e.g., Rs. 1.20 per metered call instead of Rs. 1.30 earlier), maintaining the same shares as proposed would provide the balance reflected earlier in the consultation paper. The amount of Rs. 0.48 per metered (long distance) call that is specified in Schedule I corresponds to 40 per cent of Rs. 1.20, and Rs. 0.66 per metered (international) call corresponds to 55 per cent of Rs. 1.20. This implies that the service providers sharing revenue bear the reduction in call charge from Rs. 1.30 to Rs. 1.20 in the same proportion as was proposed earlier. It must again be emphasized here that these proportions are applied as an interim measure for determining revenue shares, and will not apply in the access/carriage charge regime.
- 8 In summary, the Authority has specified in Schedule I that:
- the system of measuring the number of calls for which payment has to be made continue to be the same as at present;
  - for both domestic long distance and international calls, the revenue share be calculated as a share of the amount per measured call valued at Rs. 1.20, i.e. the highest call charge specified in the Telecommunication Tariff Order 1999;
  - this implies that for domestic long distance calls the payment should be Rs. 0.48 per measured call, and for international calls it should be Rs. 0.66 per measured call;
  - there is no specific reference in the Schedule to the revenue sharing arrangement between DOT and VSNL.

Schedule II specifies revenue sharing arrangements for calls made by subscribers of cellular mobile service providers. For these calls too, the revenue sharing arrangements remain essentially the same as prevailing earlier. The main change is that instead of a call charge of Rs. 1.40 per measured call used earlier, now it will be Rs. 1.20 per measured call.

- 2 The second consultation paper had raised a question of whether, similar to basic service providers, cellular mobile service providers should get a share of the long distance call revenue. Cellular mobile service providers had been in favour of such revenue sharing, but basic service providers were against it. The Authority has decided not to provide for such revenue sharing. An important reason for this decision is that while basic service providers have an access deficit to make up from long distance and international call charges, the situation regarding cellular mobile sector is different. For the latter, profitability has been built into the specified tariffs that are based on “median” cost estimate (and not on a lower estimate based on costs of an efficient service provider). Rentals cover capital costs and half of the license fee (for service providers in the metro area). The other half of the license fee, operational costs and a profit margin is taken into account in the calculation of the air time charge of Rs. 6 per minute. Moreover, tariff forbearance has been specified for supplementary services, which also provide a basis for substantial revenues, and tariff flexibility has been offered for cellular mobile tariffs for, *inter alia*, long distance calls made within the circle to other subscribers of the cellular mobile service provider. There does not, therefore, seem to be a basis at present to provide for revenue sharing between cellular mobile and basic service providers for long distance calls made from cellular mobile.
- 3 Revenue sharing arrangements relevant to cellular mobile will change with implementation of calling party pays tariff regime. Implementation of access/carriage charge regime will also imply a change in such a regime.

## **E CERTAIN OTHER FEATURES**

- 1 The Regulation includes, similar to the Telecommunication Tariff Order 1999, a reporting requirement and the possibility for the Authority to review and alter any interconnection charge or revenue sharing arrangement, whether specified by the Authority or those agreed mutually among interconnection seeker and provider.
- 2 Similarly, as with the Telecommunication Tariff Order 1999, the Regulation states that in matters addressed by it, the Regulation’s provisions over-ride those of the license or interconnection charges and revenue sharing arrangements specified by originating, transit or terminating service providers.
- 3 As mentioned above, the Regulation addresses on interconnection charges and revenue sharing arrangements with regard to interconnection. Other rules and regulations pertaining to interconnection have either been specified elsewhere by the Authority, or will be addressed by other Regulations/Orders of the Authority. These include aspects such as agreement on points of interconnection, technical feasibility of providing interconnection, and the quality of interconnection services.