



Consultation Paper No.4/ 2004

Telecom Regulatory Authority of India

Consultation Paper

On

Application of principle of Non-discrimination in tariff schemes like  
CUG (Closed User Group), VPN (Virtual Private Network), F&F  
(Friends & Family) etc.

February 13, 2004

## Table of Contents

Chapters		Page No.
Chapter 1.	Introduction	5-11
Chapter 2.	Background on the principle of Non-discrimination as envisaged in TTO, 1999	12 -13
Chapter 3	Trends / Developments in the area of CUG / VPN schemes	14
Chapter 4	Issues for consideration	15-17

## PREFACE

The development of technologies, reduction in cost in providing telecom services and a downward trend witnessed in overall telecom tariffs in the past one year have resulted in the service providers offering various innovative schemes in the market.

The Authority has given complete freedom to service providers to implement tariffs in the market without seeking prior approval of the tariffs subject to a self check with the regulatory principles. At the same time Authority has also made it clear that any violation of the regulatory principles in offering of tariff plans would be viewed seriously.

Few tariff schemes under the nomenclature of Closed User Group (CUG), Virtual Private Network (VPN) etc. have come to the notice of the Authority where in PSTN connectivity is sought to be given to the members of the CUG/VPN. The tariff in such schemes has in-built features to provide free / concessional calls to CUG /VPN members where they make calls within the group. This feature apparently infringes upon the principle of non-discrimination, which has repeatedly been enunciated by the Authority. On the other hand, there is a view that, tariff concessions applicable to CUG/VPN subscribers of one network cannot be extended to subscribers of an other network by virtue of the definition of CUG/VPN. The concern of the Authority is whether such tariff plans, would amount to dilution of the principle of non-discrimination emphasised by the Authority.

It is also seen that with technological progress, sophisticated CDR billing system is in place with many service providers. Therefore, the earlier requirement of using a leased network is no longer necessary to form a CUG/VPN. Simple software changes in CDR billing are sufficient to offer the benefits of CUG/VPN by the service providers.

Considering the fact that CUG/VPN services have been found to satisfy legitimate interests of various organizations in the country in the past, it was considered necessary to issue a consultation paper on the subject to elicit the views of all stakeholders.

This consultation paper consists of four chapters. Chapter 1 gives an introduction to the CUG / VPN plans. Chapter 2 provides the background on the principle of non-discrimination as envisaged in TTO, 1999. Chapter 3 discusses trends and developments in the area of CUG / VPN schemes. Chapter 4 contains various issues for consideration by the stakeholders.

The consultation paper has already been placed on TRAI's website ([www.trai.gov.in](http://www.trai.gov.in))

I request that written comments on this Consultation paper may please be furnished to Advisor (Economic) by **5<sup>th</sup> March, 2004** in hard copy as well as through electronic media at e-mail address at [tra18@bol.net.in](mailto:tra18@bol.net.in). For any clarifications Advisor (Economic) Shri M.Kannan may be contacted at phone number 26160752.

[Pradip Baijal]  
Chairman, TRAI

## **Chapter 1**

### **Introduction**

#### **VPN/CUG Schemes:**

**The ITU definition of VPN** – “Virtual Private Network is a set of logical closed user groups implemented over the public switched telecom network that provides a number of special features which enhance service.”

#### **The ITU Definition of CUG**

“The supplementary service closed user group (CUG) enables users to form groups, to and from which access is restricted. A specific user may be a member of one or more CUGs. Members of a specific CUG can communicate among themselves but not, in general, with users outside the group. Specific CUG members can have additional capabilities that allow them to originate calls outside the group, and or to receive calls from outside the group. Specific CUG members can have additional restrictions that prevent them from originating calls to other members of the CUG, or from receiving calls from other members of the CUG.”

The Department of Telecommunication (DoT) states that under the terms and conditions of existing license, operators are free to provide leased lines to their customers for setting up of closed user group network. DoT letter of 15/7/2003 is at Annex I. DoT defines CUG as a network of leased lines connected in a particular configuration. It is further mentioned that it shall be the responsibility of the operators to ensure that the telecom services are used for genuine and lawful purposes. These definitions imply that CUG/VPN are meant essentially for meeting the communication needs of an organisation or group having common interests.

The above definition and interpretation of the concept of CUG is not exactly applicable to the kind of CUG/VPN schemes implemented by some of the Telecom operators as part of tariff plan. The terms CUG/VPN have been loosely used to refer to tariff schemes where there is an eligibility i.e. size of the group, and differential

call rates among group members. The tariff features and the implication on the principle of non-discrimination for both CUG and VPN are similar.

Recently the Authority received tariff proposals where the issue of differential call rates within network came under discussion.

The details of tariff plans submitted by service providers A,B,C & D are as follows:

### **1. Tariff for VPN connections submitted by Service Provider “A” :**

The Service provider “A” had submitted two sets of tariff proposals i.e. one applicable for a state Government./Police Deptt. and the other meant for a political party. Subsequently, the service provider clarified that the VPN connection was not restricted to a specific political party but to any consumer group that subscribes to a minimum of 5000 connections. Main features of the scheme are:

- ❖ Monthly charge per connection Rs.950/-/Rs.800/-.
- ❖ Call rates within VPN - Free.
- ❖ Calls outside the VPN, but within the State per connection per month
  - \* Cell to Cell - 300 minute free
  - \* Cell to Fixed line including WLL(M) - 300 minute free
- ❖ Call rates outside VPN - as per existing plans.
- ❖ Service tax extra.

### **2. CUG tariff scheme submitted by Service Provider “B”**

The Service Provider “B” submitted a promotional tariff scheme for WLL (M) service which inter-alia, provided:-

- ❖ CUG facility intra-city between numbers of their network at monthly charge of Rs.50/- per number.
- ❖ No call charges between CUG members.

- ❖ Monthly charges for CUG waived for first 10 months. However this waiver shall not be applicable for Intra city CUG with more than two members and Intra Circle CUG.
- ❖ CUG facility is available only locally.
- ❖ The scheme is offered as an optional/additional feature with all their mobile tariff plans.
- ❖ Service provider had provided further clarifications on their CUG Scheme that the CUG facility is available only locally and that no call charges are applicable between CUG numbers. As a justification for the differential rate for calls within CUG, it was stated that the facility, by nature itself, cannot be offered across different operators and has to be restricted within the same operator's network only. This feature is within the implicit definition of CUG.

### 3. CUG tariff scheme submitted by Service Provider “C”

The Service Provider “C” submitted a CUG tariff plan for WLL (M) service which inter-alia, provided:-

- ❖ There will need to be a minimum of 5 connections to avail the CUG offer.
- ❖ There will not be any usage charges for all calls within the CUG.
- ❖ The tariffs for inter-product CUG are as under :

CUG within fixed line/Fixed wireless/CDMA mobile	Within the SDCA	Rs.50 per month per subscriber
CUG within fixed line/Fixed Wireless/CDMA mobile	Intra Circle	Rs.125 per month per subscriber
CUG within fixed line/Fixed Wireless/CDMA mobile	Inter Circle	Rs.350 per month per subscriber + Rs.1.1 per minute usage charges

- ❖ If subscriber wishes to subscribe to CUG through a PRI /E 1 /R2, the tariff applicable is Rs.5000/- per month for PRI /E1 /R2 in addition to usage charges as described above.
- ❖ The customer is free to choose any of the existing Tariff plan of the Service provider.
- ❖ All CUG members have to be on CDMA network of the service provider ‘C’.

- ❖ The additional amount will be charged on top of the base plan charges.
- ❖ Calls made amongst members of the CUG group would be treated as separate from the base plan free calls.
- ❖ There will need to be minimum of 2 connections to avail this offer and there is no limit on the maximum number of members in a CUG.

**4. CUG tariff plan for business entities (Cellular Mobile Service) filed by Service provider ‘D’. The main features of the plan are as follows;**

- ❖ Nil call charges within CUG.
- ❖ Calls made by the members of the CUG to persons outside the CUG are charges at the applicable tariff.
- ❖ The plan is open to business entities including partnership firms, small and medium businesses and large corporate.
- ❖ A fixed monthly charge of Rs.75/- and Rs.50/- (ATPs).
- ❖ The application form must accompany by any one of the documents viz; Registration certificate, Sales tax registration certificate, latest income tax declaration, partnership deed, MOU or MoA, Registration under small industries or NSIC or Membership identity of any registered industrial association like SIEMA etc.
- ❖ The minimum number of connections is 5.
- ❖ Maximum limit is open ended.
- ❖ In the event minimum numbers of connections fall below 5, the rest of the enrolments under the plan will not be entitled to the benefits of the CUG and all calls would be charged at the rates as applicable for calls outside the CUG.

## 5. CUG tariff plan filed by a Service Provider ‘E’ for Cellular Mobile

### Communication Service:

Particulars	Plan 1	Plan 2	Plan 3
Activation charges per customer	Rs.200 + service tax	Rs.200 + service tax	Rs.200 + service tax
Security deposit per customer	Rs.500 (without STD/ISD)	Rs.500/- (without STD/ISD)	i) Rs.1000 (without STD/ISD) ii) Rs.2500/- with STD iii) Rs.6000/- with ISD
Rental & flat airtime	Rs.400 + service tax	Rs.500 + service tax	Rs.900 + service tax

- Plan 1 : Access within group ( calls within the CUG group is allowed and calls from & to outside the CUG group is not allowed)
- Plan 2: Access within the group + incoming calls allowed ( calls within the CUG group and only incoming calls from outside the CUG group is allowed)
- Plan 3: Access within group + incoming and outgoing calls allowed.
- Minimum connections is five for all plans.

## 6. VPN tariff plan filed by Service provider “A”

- ❖ Monthly charge per connection Rs.500/-
- ❖ Intra VPN calls - Free
- ❖ Calls outside the VPN – As per existing plan
- ❖ Service tax – Extra
- ❖ All other charges -As per existing plan
- ❖ Minimum size of VPN group – 2000 numbers

Service Provider “A” has also **Corporate VPN schemes**. Features of the same are given below:

1. Minimum number of members - 5
2. Maximum number of members - 20
3. Monthly subscription per subscriber - Rs.150/-
4. One vanity number of level-3 for every 10 or more than 10 connections - free
5. Applicable tariff - As per existing tariff plan
6. PSTN connectivity - allowed, including roaming upon payment of applicable PSTN charges.

7. Corporate VPN facility can be extended to the officers of the corporate body subject to following conditions;

- Total number of officials who are willing to take this facility be more than 10.
- Security Deposit for STD/ISD facility may be taken from each subscriber Rs.2000/- Rs.3000 /- respectively as per existing norms.
- Credit limit may be fixed as Rs.1000/- per connection.
- Concerned corporate house should take responsibility for financial liability limited to Rs.1000 in respect of each officer. The company should also take the responsibility of informing the Service Provider about the new addition in the plan as well as those who are quitting from the plan.
- Written request from the corporate body is essential.
- All members of CUG have to be Service Provider’s customers and of the same licensed service area. No aritime will be charged amongst the members. The call outside the group will be charged as per the existing tariff plan rates.

Prima-facie both CUG & VPN schemes and other similar schemes like parent-add on connection etc. are against the principle of non-discrimination in as much as calls among the group numbers, which are essentially within the network are either free or are concessional.

Thus, there appears a differential call rate vis-a-vis calls terminated in other networks. In fact the differential rate also exist between calls within the group and calls outside the group but within the same network.

The CUG tariff schemes submitted by operators are of different types, some of which are:

- i) CUG Where calls within the Group only are permitted;
- ii) Outgoing calls permitted only within the Group but incoming calls from outside the Group are also permitted; and
- iii) Both outgoing and incoming calls are permitted outside the Group. While calls within the Group are free, other calls are generally chargeable unless there is a substantially higher fixed monthly charge.

Each subscriber group has the option to choose one among the different options available depending upon its requirement. Out of the above, options ii) and iii) are not 'Closed User Group' in the strict sense because these allows subscribers to make or receive calls from/ outside the group.

## Chapter 2

### Background on the principle of Non-discrimination as envisaged in TTO, 1999

The principle of non-discrimination was envisaged and ensured since the inception of TTO. Clause 10 of TTO states "*No service provider shall in any manner, discriminate between subscribers of the same class and such classification of subscribers shall not be arbitrary*".

The Authority has in the past intervened on a number of tariff schemes/plans which either discriminated between subscribers of the same class or left scope for such discrimination. The interpretation of what would constitute discrimination among a class of subscribers has also undergone change over a period of time. For example, at one stage different sets of tariff based on geographical location was considered discriminatory and were not permitted. However, subsequently the approach was modified and the Authority held that geographically restricted tariffs would not amount to discrimination.

### Development in the interpretation of Principle of non-discrimination in present Context under CUG / VPN tariff schemes

#### **A. Differential charges for calls terminated within same network:**

Till recently, most of the cellular operators were having tariff plans where differential call rates were noticed for within network calls. Thus, for example calls between subscribers to one network carried a lower call charge compared to rates for calls to other mobile networks. However, with the implementation of the IUC Regime effective from 1/5/2003, the Authority clarified that differential rates for calls terminated within the network would amount to discrimination. Accordingly, TRAI intervened in tariff proposals which provided concessional rates for within network calls. The new interpretation of the principle of non-discrimination has impact on several ongoing tariff schemes like 'Friends & Family', CUG and VPN. 'Friends & Family' schemes that allowed subscribers to choose one or few numbers for concessional tariff, were intervened when it was found that the choice of number for the subscribers was restricted to a particular network. The principle of non-

discrimination was ensured by compelling the operators to widen the choice of numbers to all other networks of the service.

**B. Friends & Family Scheme operated by various SPs.**

Friends & Family (F&F) Scheme is a facility whereby subscribers are given option to choose one or few telephone numbers, calls to which are made either totally free or are priced at concessional rate. This fee can be either a charge per number chosen or a consolidated fee for all numbers put together.

The Authority in the recent past intervened in many F&F Schemes on the ground that the choice of numbers was restricted within a particular network. While intervening in such proposals, Authority advised the operators to extend the choice of numbers to any network.

### Chapter 3

#### Trends / Developments in the area of CUG / VPN schemes

The CUG concept in India started with customers such as Corporates and Business houses for their captive consumption of private data network to connect their various branch offices by taking telecom resources from BSOs, ILDOs, VSAT operators, ISPs etc. This private network is historically known as Closed User Group (CUG), which is basically for internal communication within the group having community of interest (generally belonging to single organization) and not to provide any telecom services to any third party / end user. Normally such networks are not allowed to be connected to a PSTN / PLMN network.

So far the leased line resources for most of the CUG network has been provided by the incumbent operators (BSNL/MTNL) because of their countrywide presence. Till recently, to set up a CUG network, customer applies with a detailed network diagram to Circle Head of BSNL / MTNL for approval. On receipt of approval, customer takes leased line resources to set up the network from BSNL / MTNL only. Recently, DoT have done away with the requirement of Network approval and also permitted usages of Leased line resources from multiple service providers while building a CUG network, wherein the various service providers should have mutual commercial agreement (vide Annexure –I).

Due to faster telecom development in last three years, various tariff plans in the name of CUG have been offered in the market in voice telephony segment. Initially the CUG tariff plans were offered to incentivise own employees of a corporate firm enabling them to talk to their fellow employees working in branch offices in distant cities. Slowly these concessional tariff plans were extended for making outgoing and incoming calls on the same concessional charges. Apparently these concessional schemes in the name of CUG plans have become most sought after schemes for service providers to acquire subscribers. This type of CUG schemes, are tariff oriented and different from the CUG concept described above. Therefore, this has to be handled separately. Technically any such CUG schemes can be sealed as a part of service provision, with the help of software programming on the existing PSTN/PLMN switch. No external / additional resources are required for this purpose.

## **Chapter 4**

### Issues for consideration

#### **Issue 1**

##### Background

The Authority had not been objecting to differential tariff for within network calls till recently. This restriction has become necessary in view of the possibility of dominant players pricing their products at too low level that may damage the business prospects of other operators. It can be argued that since the cost involved for calls within network is comparatively lower, the benefit of the lower cost can be passed on to the subscribers by way of lower airtime charge for calls within network.

In view of the above;

**Question 1: Whether differential tariff for calls within the network should continue to be treated as discriminatory?**

## Issue -2

### Background

The CUG / VPN schemes (details of which are given in Chapter 1) and other similar schemes may result in having to address the application of the principle of non-discrimination. This is particularly true when there is facility for making or receiving calls from outside the group. While it could be argued that such schemes are discriminatory it can also be argued that such CUG schemes have been in existence and that the subscribers have found them to be useful. Such schemes are particularly suitable for corporate, business firms and institutions/organizations whose members would largely be interacting themselves for business purposes. Any step to curb such schemes would be considered as retrograde and consumer unfriendly.

In view of the above;

**Question 2. Whether CUG and VPN Schemes should be disallowed as it involves differential call charges and thus, amounts to discrimination?**

### Issue –3

#### Background

While allowing such innovative schemes it may be possible to check their misuse by prescribing one or more of the following conditions; or other further conditions as may be deemed appropriate.

- i) The clear and un-ambiguous definition of the group/VPN indicating the minimum and maximum numbers.
- ii) Restricting connectivity to the group members. This may reduce the attraction of CUG schemes.
- iii) Condition that all CUG/VPN connection should be taken and billed in the name and address of one entity.
- iv) CUG membership shall be restricted to one licensed service area.
- v) Membership of CUG/VPN to be restricted to individuals belonging to the same organization/business houses or other identifiable groups.
- vi) What shall be the minimum number that may be permitted for forming CUG / VPN.
- vii) Should there be maximum number that may be prescribed for forming CUG/VPN and if so what should it be?

In view of the above;

**Question 3. Whether above terms and conditions are to be prescribed by the Authority to ensure that these schemes are not misused? If so then what would be appropriate criteria to define aforesaid conditions?**

**Annexure –I**

**The contents of DoT (Department of Telecommunication) circular no. 824-42/2000-LR dated 15.07.2003 is reproduced below:**

Government of India  
Ministry of Communications & IT  
Department of Telecommunications  
Sanchar Bhavan, 20, Ashoka Road,  
New Delhi – 110 001  
(LR Cell)

No. 824-42/2000-LR

Dated 15.07.2003

To

All Basic / NLD / ILD Operators

Sub: Utilization of resources by CUG customer through multiple licensed service operators for setting up of CUG network.

The above matter has been considered by Department of Telecommunications and I am directed to intimate you in this regard as follows:-

1. Under the terms and conditions of existing licence, wherever permitted, operators are free to provide leased lines to their customers for setting up of Closed User Group (CUG) network. CUG may be a network of leased lines connected in a particular configuration. Customers do not require any approval / permission from DoT for availing the facility of leased lines through licensed telecom operators.
2. The arrangement of telecom resources from various service providers for setting up CUG network as requested by customer is to be resolved by entering into mutually agreed commercial agreements between the operators.
3. DTS circular No. 112-8/94-PHC (Pt) Dated 31.05.2000 will not be applicable in the multi operator scenario.
4. It shall be responsibility of operators to ensure that the telecom resources are used for genuine and lawful purposes.

Sd/-  
(Rajvir Sharma)  
Director (LR-III)  
Tel. 23036509

Copy to : 1. DDG (BS), Sanchar Bhavan, DoT, New Delhi  
2. Secretary, TRAI, A-2/14, Safdarjung Enclave, New Delhi – 110 029