

**COAI RESPONSE TO TRAI CONSULTATION PAPER NO. 2001/1
ON
ISSUES RELATING TO THE INTRODUCTION OF CPP FOR CELLULAR
MOBILE SERVICES**

INTRODUCTION

1. CPP will bring down the Total Cost of a Call & Serve overall Public Interest

It is a well-established fact that with the **introduction of a Calling Party Pays (CPP) Regime, the total cost of a call** (i.e. cost to a calling party as well as to the receiving party) **comes down significantly**. In the light of this, COAI believes that **introduction of a CPP regime would be particularly appropriate / desirable as not only is India a low-income country with a very low purchasing power but also because the Indian consumer is particularly price sensitive.**

The **pattern of fixed to mobile calls in the present scenario represents a community of interest**, which broadly resembles the profile / characteristics of a Closed User Group. This community of interest could be a wife calling her husband, or say a sales / service manager calling his field representatives, **where the total cost of a call is usually borne by either the same entity** - the household unit or the corporate unit respectively **or closely connected entities** - friends, business associates, etc. And **any regime that brings down the total cost of a call is desirable from the point of view of Indian consumers.**

2. CPP will benefit both Mobile & Fixed Subscribers

Benefits to PSTN Subscribers

At the outset, we would like to emphasize that the **apprehension that a higher tariff for fixed to mobile calls is anti-consumer is completely misplaced.**

The **PSTN customer will always have the choice to call on a fixed line** number, since invariably, the mobile phone is used as a second phone in addition to a normal fixed line phone.

However, in times of emergencies or in case the person is not available on his fixed line number, the PSTN caller will still be able to access the mobile subscriber. However, this access will be at a reasonable premium. People must be willing to pay for the choices they make and if they choose to call a mobile customer, they **must be willing to pay the marginal extra cost for the ease, convenience and benefit of reaching exactly the right person, anytime, anywhere.**

The introduction of CPP will also be **beneficial for the PSTN subscribers who will now be able to access / contact any mobile customer whenever they want since the receiving party would now be willing to accept incoming calls more readily.** This

would lead to **all round improved business productivity** – especially for persons in the service segment of society.

Mobile users who wish to pay for calls to their mobiles could introduce mobile toll free numbers or a number which means that callers only pay a normal local call charge. Such tariff options can be made available on mobile and fixed networks thus increasing customer choice.

Benefits to Mobile Subscribers

A key **benefit of CPP to the mobile subscriber is that it removes the cost barrier to receiving incoming calls**. Mobile subscribers **no longer pay for calls they may receive and over which they have no control**. Once this is done, mobile users start to circulate their mobile number widely, e.g. print it on business cards. This increases the number of calls from the fixed network to mobiles, as the mobile number will be freely available to the entire segment of PSTN subscribers, which at present, is a much larger community than mobile users.

CPP also means that mobile **subscribers gain predictability and control over their bills**. **Mobile subscribers no longer have to switch off their phones or be reluctant to give out their mobile numbers**. To prevent inbound calls runs contrary to the whole idea of modern communications, which focus on contactability.

3. CPP will improve Productivity & Efficiency

Introduction of a CPP regime would also tremendously **improve the productivity and efficiency of certain service segments of society, for example, carpenters, plumbers, electricians, mechanics, etc.** all of whom are always on the move, but for business purpose, need to be accessible to their customers at all times. Such segments of society are not financially comfortable with paying for incoming calls and therefore, at present, cannot even think of having a mobile phone. Introduction of CPP will be a great boon for such service segments.

Further, In an MPP environment, there is a tendency amongst mobile subscribers to use their mobile phone as a pager, resulting in lower call completion rate and a loss of revenue on these calls. Introduction of CPP would result in a more efficient use of both the PSTN and mobile network and consequently better revenue ratios for both the fixed and mobile service providers. This in turn, will result **in lower costs of service for end-users**.

4. CPP will lead to Optimal use of Scarce Resources

It is widely accepted that radio spectrum is a scarce resource from which the best economic benefit should be extracted. When more telephony traffic passes through a given amount of spectrum, this amount of spectrum is used more efficiently. **Calling Party Pays delivers higher usage and therefore a more economic use of spectrum**. This in turn, will lead to **improved quality of service**.

5. CPP will also benefit the Fixed Service Providers

A CPP Regime will also benefit the fixed network operators. Cellular Mobile forms part of the whole telecoms network of the country. Larger networks can generate more calls due to the network effect.

In a CPP environment, the traffic from fixed to mobile will be substantially higher than in a Mobile Party Pays (MPP) environment. This means that fixed network operators will benefit from higher call volumes and thus increased revenues.

The fact that the fixed network operators derive a very high benefit can be demonstrated by an analysis of the UK telecom services market revenues, comparing fixed network operators' local call revenue with revenues from calls to mobile phones. (see Table)

UK Fixed Network Operator Local and Mobile Call Revenues

Revenues \$ Millions	1992/3	1993/4	1994/5	1995/6
Local Calls	3,598	3,744	3,632	3,602
Calls to Mobiles	452	575	747	993
Total	4,051	4,319	4,379	4,595
Local Calls %	89%	87%	83%	78%
Calls to Mobiles %	11%	13%	17%	22%

The UK fixed operators earn substantial revenues from calls originating in their networks and terminating on mobile networks. In addition, the margin on calls from fixed networks to mobile networks is very high as compared to the revenues on local calls. This means that the fixed operators earn far more on calls, which they do not terminate themselves but hand over to mobile networks. In other words, the costs are lower, but the revenues are higher.

Further, introduction of CPP will also lead to better call completion rates and better utilization of network capacity for fixed operators, since the mobile subscriber will no longer be reluctant to receive a call on his mobile phone. This in turn will improve the quality of service and the revenue ratios for the fixed operators.

6. CPP will lead to a growth of the Cellular Mobile Market

CPP reduces the cost of mobile ownership. The introduction of CPP will lift one of the biggest barriers to the growth of the mobile sector.

Research carried out by independent agencies in many countries worldwide indicates that telecom subscribers work towards a budget as far as their average monthly bill is concerned. Existing users know their average monthly bill and ration usage in order not to exceed the amount they can afford or wish to spend on mobile telephony. New subscribers also assess affordability in terms of the average monthly bill.

COAI believes that AT&T conducted extensive CPP market trials in 1994, which showed that over time inbound calls minutes for customers who converted to CPP increased from 26% of total minutes to 32% within approximately six months. It was believed that over time the increase would be likely to be substantially higher. The trials, which carried out / undertook a direct comparison of an MPP and CPP regime in the same market, showed that :

- CPP will increase inbound call minutes.
- CPP will increase revenue per subscriber.
- CPP will expand cellular market by making cellular more affordable to potential customers.
- CPP will increase usage of marginal customers.
- CPP will retain customers who are sensitive to the cost of cellular service.
- CPP and voice mail will increase inbound and outbound usage.

Not having to pay for incoming calls means that existing mobile users can afford to spend more on making calls. To potential new subscribers the average monthly cost of ownership decreases, thus helping subscriber growth.

Thus, CPP will not only **expand the mobile market by attracting the marginal customers**, but will also result in **increased mobile usage by the low-end subscribers**. This would be a **desirable end-objective / achievement for a country characterized by low tele density and low tele propensity**.

7. Improved Revenues to the Government

Global trends have established that the introduction of a CPP regime has usually lead to a tremendous growth in mobile services – both through increased usage of existing subscribers as also increased take up of the service by marginal customers. **This growth in the mobile sector will also have a positive impact on Government revenues – which are now directly linked to mobile revenues** through revenue share license fee and other levies – service tax, etc.

8. CPP will usher in PSTN like environment resulting in improved tele density & increased economic growth

The TRAI has rightly recognized that the perception that mobile telephony as a premium service is no longer valid and that in many countries, the Regulators and Policy makers are creating conditions so as to make mobile services even more popular and affordable and to increase tele density. TRAI has pointed out that one such endeavour could be to bring the mobile network under a tariff regime similar to that of a PSTN where, while making a call to another fixed phone, only the calling party pays.

COAI fully agrees with the TRAI view that **mobile services can only make a significant contribution to increasing the tele density if they are used in a way, which**

approaches fixed network use over time. A Mobile Party Pays system of tariffing hinders this development, because mobile users do not give out their number widely in order to limit incoming call charges.

Given the fact that the growth of mobile phones over the last decade has been higher than that of fixed phones, **introduction of a CPP regime would give the mobile sector its biggest fillip leading to an all round growth of the sector.**

Mobile telephone networks can thus play a major role in increasing the tele density in countries where fixed line penetration is low. The economic benefits associated with a higher tele density are well documented in a **World Bank Study, which concluded that for every 1% increase in tele density, there is a 3% increase in GDP growth.** Introduction of CPP would lead to growth of the cellular mobile sector, contributing to increased tele density and in turn have a positive impact on economic growth.

9. Summarised Benefits of Calling Party Pays Regime

Beneficiary	Benefit
Fixed Users	<ul style="list-style-type: none"> ▪ Always have the option of calling on a fixed number ▪ Can reach a mobile subscriber at all times, by paying a small premium. ▪ Can reach a greater number of mobile subscribers, who were previously unavailable because phone was switched off or number not given out.
Mobile Users	<ul style="list-style-type: none"> ▪ Lower costs, no payment for incoming calls. ▪ Better control & predictability of bills. ▪ Higher usage, due to savings on incoming calls. ▪ Freer access - Better contactability - as can freely circulate mobile number.
Fixed Network	<ul style="list-style-type: none"> ▪ Higher traffic volume fixed to mobile and mobile to fixed. ▪ Better call completion rate. ▪ Better utilization of fixed network capacity. ▪ Resultant higher margin earnings on fixed to mobile traffic. ▪ Improved quality of service.
Mobile Network	<ul style="list-style-type: none"> ▪ More efficient utilization of network capacity. ▪ Retention of marginal customers. ▪ Greater take up of service by price sensitive customers.
The Government & The Economy	<ul style="list-style-type: none"> ▪ Faster subscriber growth. ▪ Cater to wider segment of society –carpenters, etc. ▪ More efficient use of spectrum through. ▪ Increased earnings through growth of telecom sector & service revenues. ▪ Higher tele density through faster growth in mobile lines. ▪ Improved Efficiency and Productivity.

Chapter 2 Global Scenario

I. ISSUES POSED BY TRAI FOR DISCUSSION

- a) **Is CPP desirable in our context? If it is considered desirable, what should be the main objective(s) behind its introduction?**

Yes, particularly in our context, the introduction of a fair & viable Calling Party Pays regime is desirable for the following reasons :

- **It will bring down the total cost of a call, thereby serving the larger public interest.** At present, the total cost of a two minute call from a fixed to mobile phone is as below :

COST OF A TWO-MINUTE PSTN TO MOBILE CALL

	Current Scenario MPP	Proposed Scenario # CPP - 99
Fixed Line Caller Pays	1.20	3.60
Mobile Receiving Party Pays	4.00*	-
Total Cost of a Call	5.20	3.60
TOTAL COST OF A CALL COMES DOWN BY 30%		

* Average mobile tariff is presently around Rs. 2 per minute

As per earlier TRAI Order in the matter which was to have been implemented on November 1, 1999

- **It is not fair to ask / require the Receiving Party to pay for a call that he did not initiate and over which he has no control.**
- **As mentioned earlier, the PSTN subscriber will almost always have the option to reach the mobile subscriber on his fixed line number since the mobile phone is usually in addition to a fixed phone. In times of emergency or in case the mobile subscriber is not available on his fixed line number, the PSTN caller will still have the option of reaching him by paying a premium for instant accessibility.**
- **It will lead to a growth of the mobile market as introduction of CPP will lift one of the biggest barriers to adoption of mobile services by more customers :**

- CPP will increase usage by marginal customers.
- CPP will expand the cellular market by making cellular more affordable for potential customers.
- It would be **in line with global telecom practices, as over 90% of the world's telecom regimes are on CPP**
- At present, there is a tendency amongst mobile subscribers to use their mobile phone as a pager, resulting in lower call completion rate and a loss of revenue on these calls. Introduction of CPP would result in a **more efficient use of the cellular network and better revenue ratios for both the fixed and mobile service providers**. This in turn, will result in **lower costs of service for end-users**.

However, CPP, in whatever form it is introduced, must be :

- Fair, viable and economically sustainable for both the PSTN and mobile service providers. **In this context, it must be noted that TRAI has in its latest tariff determination for CMSPs (Telecom Tariff- Twelfth Amendment) has prescribed the cost-based airtime charges at Rs. 4.65 per minute.**
- **Acceptable to all stake-holders** – The CPP regime introduced by the TRAI must be such that it finds acceptance with all concerned - the service providers as well as consumers.
- The Regime must be **easy to understand and simple to administer**.
- The Authority must take a **holistic view of CPP forming a part of the larger picture of finalization of an interconnection regime and the application of cost based tariffs for origination, carriage & termination of a call.**

b) **What benefits will accrue to the subscribers of PSTN/PLMN and to the Telecommunications industry in the country as a whole, consequent upon the introduction of CPP?**

- **The introduction of a fair, viable and acceptable CPP regime will be beneficial to both the PSTN as well as PLMN subscribers as demonstrated below.**
- Fixed to Mobile calls can be broadly categorized into Personal & Business calls.
 - **In the case of personal calls, there is a strong community of interest and more often than not it is the same person / entity that will be paying for both the fixed and mobile calls.** In these cases, it is important to look at the total cost of a call, and this will come down significantly with the introduction of CPP.

- **In the case of business calls – introduction of CPP will lead to freer access to the entire mobile subscriber base** as the mobile subscriber will not be averse to giving out his mobile number.
- It will also lead to **improved business productivity for the services sector, from whom it is important that their clients can freely reach them anytime, anywhere.** As stated earlier, this could include **service segments like plumbers, electricians, carpenters, mechanics, who for business reasons, need to be accessible at all times to their customers, but cannot afford to pay for incoming calls.**

- **The Result : Improved Personal and Business Productivity.**

c) **Should CPP be introduced for fixed to mobile calls, by regulatory intervention or should it be left to market forces?**

- In a newly liberalizing telecom economy, where the dominant incumbent operator, offers integrated telecom services and has monopolistic control over vital bottleneck facilities, the new private entrant has little or no chance of undertaking negotiations on an equal footing and arriving at a mutually acceptable Mobile Termination Charge.
- Under these circumstances, COAI believes that **the Regulator has to play a critical role in prescribing a fair, equitable and cost based Mobile Termination Charge (MTC) to ensure a level playing field.**
- In fact, **TRAI must lay down a fixed price for the MTC to prevent anti-competitive practices by the incumbent operators with significant market power and monopolistic control over bottleneck facilities.**

d) **If CPP is introduced for PSTN - PLMN calls, what is the best way of balancing the interests of various stake-holders e.g. subscribers & operators of Basic and Cellular Mobile Services?**

- At the outset, we would like to reiterate **that there is absolutely no compulsion for a PSTN subscriber to call a mobile number as the PSTN subscriber will invariably have the option of calling the mobile subscriber on his landline number.**
- In addition to the above, **the PSTN subscriber will also retain the option of reaching the mobile subscriber on his mobile phone by paying a small premium.**

- **CPP will also be beneficial to the PSTN subscribers, as it will give them access to the entire gamut of mobile subscribers who were earlier averse to giving out their mobile numbers.**
 - **In fact it is the interests of the mobile users that the TRAI needs to consider, who have till date been asked to pay for calls which they may not even be desirous of receiving, but over which they have no control.**
 - **As mentioned earlier, introduction of CPP will serve larger public interest, as the total cost of a call will come down under CPP.**
 - **Further, we sincerely believe that CPP must be introduced in a manner and form that is acceptable all stake-holders. A fair & economically viable CPP regime will encourage greater take up of the mobile service leading to an all round growth of the mobile sector.**
- e) **Would the introduction of CPP in India result in an accelerated growth of mobile subscribers, including prepaid customers, as witnessed in some countries of Latin America? Would there be any preconditions / pre-requisites for it to happen.**
- **Yes, definitely the introduction of a CPP regime will result in an all round increase in both number of mobile users as well as mobile usage** as paying for an incoming call in one of the biggest barriers to taking up this service and using it freely.
 - **Further, it will lead to freer use of the mobile phone and increased access to mobile subscribers who will no longer hesitate to give out their mobile numbers.**
 - **It is also expected that the introduction of CPP will lead to a large increase in the number of pre-paid subscribers, who are the most price conscious segment of mobile users.** In this context, there is also an apprehension that the prepaid customers would tend to use their mobiles predominantly for receiving calls, thus skewing the revenues of the CMSPs. The TRAI must keep this aspect in mind whilst determining the terms and conditions for the introduction of CPP.
 - **“Global experiences suggest that introducing CPP could expand the telecom market in India exponentially.** In Argentina, the mobile market grew 233% in less than a year after CPP was introduced; Mexico and Chile also reported stunning growth rates in the cellular market in remarkably short periods. **For the last six months or so, the government has scared global telecom investors with its controversial limited mobility policy. To undo the damage and expand India’s telecom markets, it should bring in a CPP regime immediately.”** [Economic Times, June 4, 2001]

- We believe that for a **CPP regime to be successful, it must address the minimum viability requirements, which would include a fair MTC and must necessarily be accompanied with the assurance of equitable interconnection arrangements and accounting separation for SMP operators.**
- f) **Should CPP be introduced for all calls terminated on mobile networks or should calls like international, calls from PCOs, roaming etc. be excluded from its scope as is done in a number of countries due to technical difficulties, encountered in including such calls in the CPP arrangement?**
- It is of utmost importance that **CPP regime is introduced in a form that is easy to understand and simple to administer. This had also been stressed by TRAI in CPP-99 wherein they had stated that “in the initial stages of CPP, a simple scheme of MTC needs to be implemented.”**
 - It may at the outset be pointed out that the **earlier TRAI Order for introduction of CPP had stated that “the cellular service provider in a particular service area has to be paid MTC for all calls terminating in its network (including international calls), except those made from its own network (i.e. except for intra-network calls). The MTC for international calls would be paid by the network that hands over the call to the terminating network. This is in effect a charge paid for terminating the call on the cellular mobile network out of the proceeds received from the foreign network for carrying and terminating a call in the domestic territory.”**
 - As regards PCOs, most of them are now **attended PCOs where there is no problem in billing a caller for a PSTN to Mobile call.** The problem arises only in the case of the **old-fashioned coin boxes**, which are very few in number and can **be excluded from the purview of CPP in the interests of providing a greater benefit to a larger number.**
 - **Roaming calls anyways cannot be on CPP as the roaming subscriber chooses to be contactable outside his home network and must therefore necessarily pay for the extra long distance leg.** This is the practice the world over.
 - We would also like to clarify that it is extremely important that the **MTC should also be payable in the case of inter-network mobile-to-mobile calls even if there is direct connectivity between the CMSPs..**
- g) **Should CPP be made optional as in USA? Is it technically possible to implement in our network, a system which gives an option to the subscriber to choose either CPP or MPP, as in USA?**

- It must be understood that **USA and Canada are on a MPP regime for the predominant reason that the numbering plan / scheme of PSTN and Mobile Phones is identical**, thus making it impossible for the system to distinguish between the two and bill them accordingly.
- In the case of **India however, the numbering scheme for cellular services is clearly and identifiably different from the PSTN numbering scheme**. The PSTN subscriber will thus be well aware of the fact that he is calling a mobile number which will be charged differently from a PSTN-PSTN call. There thus appears to be **no justification from making CPP optional. In fact there could be undue confusion amongst consumers as well as complications in administering the regime if CPP is made optional.**

h) **What is the type of customer education & its cost that will be required to be incurred for implementing CPP?**

- **Introduction of a CPP regime should be preceded by a suitable customer education program through both print and electronic media to ensure adequate awareness of this scheme prior to its implementation.**
- **Consumers anyways know that they are calling a mobile number when they dial the '98' prefix. All that is additionally required is to enlighten them that such calls will henceforth carry a differential charge.**

II. ADDITIONAL COMMENTS / CLARIFICATIONS

- b) In addition to the above submissions, we would also like to comment on the prevalence of an MPP regime in China. The Authority in this Consultation paper has cited the case of China as one of the countries which is still on MPP and where, even though the policy to introduce CPP was announced, its implementation was deferred due to :
- (i) the likely shrinkage of the paging branch of China Unicom in which the government had invested heavily and
 - (ii) because introduction of CPP would increase the overhead budget of the government departments and state owned enterprises still dominating the Chinese economy.

Since China is often looked cited as a role model for Indian telecom, we would like to clarify that the two telecom regimes cannot be compared. The absence of a CPP regime in China is not an example relevant for India on account of the following :

- **China has only two mobile operators – both with a national footprint, which gives them huge economies of scale.**

- In addition, both operators are public operators & have significant incumbency advantages.
- Further, there are no license fees or interconnection costs, which results in far lower costs of operation and resultant lower tariffs.
- The GDP per capita in China is almost double that of India's (USD 768 for China vis-à-vis USD 444 for India in 1998), giving the former a far higher purchasing power.

With nation-wide services, incumbency advantages, lower mobile tariffs and higher purchasing power, there is no compelling advantage for China to move over to a CPP regime.

Chapter 3 **Tariff Issues**

I. **GENERAL COMMENTS**

In addition to the issues specifically raised for discussion by the Authority on Tariffing, the TRAI also expressed the need to address the following issues:

- i) **Whether the mobile termination charge (MTC) could be mutually negotiated and determined by the operators under the broad framework of the Telecommunication Interconnection (Charges and Revenue Sharing) Regulation, 1999 (hereinafter "Interconnect Regulation of May 1999")**
 - In a scenario, where the dominant incumbent operator, offers integrated telecom services and has monopolistic control over vital bottleneck facilities, the cellular operators have little or no chance of undertaking negotiations on an equal footing to arrive at an mutually acceptable Mobile Termination Charge.
 - This has been amply proved by our complete failure to arrive at any kind of mutual agreement in the matter of interconnection access charges.
 - It is therefore **essential for the Regulator to play a key role in prescribing a fair Mobile Termination Charge (MTC) acceptable to all parties**. In fact, as mentioned earlier, it would **be desirable for Regulator to actually prescribe a fixed rate for MTC to prevent anti-competitive practices by the incumbent**.

- ii) **If the answer to the above is in the affirmative, then who determines the tariffs taking into account a mutually determined termination charge, namely, the regulator or the service providers themselves.**
 - Based on our response to one above, we submit **that the retail ceiling tariff for PSTN to Mobile calls should also be prescribed by the Regulator**.
 - **TRAI itself has always advocated the principles of cost based tariffs** as has also been clearly outlined in the Telecommunication Interconnection (Charges and Revenue Sharing) Regulation 1999.
 - The above Regulation clearly states that :
 - “Interconnection shall be cost based, unless as may be specified otherwise.
 - 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.

- No service provider shall discriminate between service providers in the matter of levying charges for interconnection.”
 - We submit that TRAI must stick to this approach for the cellular mobile sector. We admit that given the legacy of a below cost PSTN to Mobile tariff, it will not be easy for the Regulator to immediately achieve its objective of cost based tariffs especially with respect to PSTN to Mobile calls. Nevertheless, we believe that the process should be initiated with this end objective in mind
 - We also believe that **introduction of a CPP regime must necessarily be accompanied with the assurance of equitable interconnection arrangements and accounting separation for SMP operators as it is apprehended that without clear & separate accounting arrangements, the incumbent PTT and the vertically integrated telecom operators would have a significant advantage over the cellular operators by virtue of their potential ability to cross-subsidize their services.**
- iii) **Also, if the termination charge is determined by the service providers, how to ensure that the charge is not fixed at such a high level that it imposes a substantial burden on the customer. Such a burden may mean a reduced call volume due to the negative effect of price on call volumes.**
- As mentioned by us in Para 1 above, **COAI recommend that MTC be determined by the Regulator, which can be based on the cost information of the operators already available with TRAI.**
 - We strongly believe that such determination of MTC by the Regulator cannot be but equitable. However, it needs to be recognized that **the tariff for local PSTN calls in India are amongst the lowest in the world arising from our social objective and the ability of the incumbent to subsidize local call tariff from long distance call tariff.** Consequently, when TRAI in its move towards cost based interconnection, determines a cost – linked / oriented MTC and prescribes a ceiling PSTN to Mobile tariff this would naturally be higher than the prevalent PSTN to mobile tariff as **the cost-based airtime charge determined by TRAI itself in its 12th Amendment on Tariffs is Rs. 4.65 per minute.**
 - However, We would once again to point out that **the total cost of a call comes down significantly with the introduction of CPP.** And given the community of interest and the fact that usually it is the same entity paying for both legs of the call, **reduction of the overall burden is in the interests of the consumers.**
 - It may further be noted that **while the PSTN mobile tariff will be higher, the PSTN customer is not forced to incur this additional expenditure as he has the option of reaching the mobile customer on his fixed line connection as in almost all cases the mobile is a second phone in addition to the fixed line.**

- Further, it may not be inappropriate to point out that **communication is more likely to happen within “like economic strata”** and going by the present general understanding that the mobile customer belongs to a higher economic strata, he is more likely to be receiving incoming PSTN calls from a similar economic strata. **In this strata, it is also very probable that every PSTN caller is either already a mobile user or is a potential cellular subscriber, who has possibly refrained from taking up a mobile service on the very grounds that he would have to pay for incoming calls.**
- Accordingly, the MTC cannot result in a “substantial” burden on the PSTN customer as via CPP TRAI is seeking to ensure that the present burden on the mobile customer for incoming calls is spread equitably between him and the PSTN customer.
- In most countries **where CPP has been introduced, there has been a significant increase in volumes / traffic.** This increase can be attributed both to **increased mobile usage by marginal customers plus increase in the number of mobile subscribers,** many of whom were not adopting the service for the fear of having to pay for incoming calls over which they have no control.

iv) **Is it feasible to determine the quantum of MTC by the regulator, based on the unbundled network elemental cost data furnished by the operators.**

- We believe that there is **adequate cost data available with the TRAI to be able to arrive at the unbundled network element costs for MTC.**
- In any event it is nobody’s case that we have to start off with a high level of sophistication in our assessment of costs. As has been the case the world over the **move towards cost based tariffing takes place over a period of time with regular reviews and fine tuning of costing arrangements.**
- TRAI itself has acknowledged the importance of ongoing review of tariffs keeping in mind recent developments on competition, cost of network elements, etc.

II. ISSUES POSED BY TRAI FOR DISCUSSION

a) **What should be the basis for fixation of tariffs for CPP? Whether Directly Attributable Incremental Cost (DAIC) or Fully Allocated Cost should be adopted as the methodology for fixation of tariff? Or, any other methodology will be most suited for the purpose, which could be considered for adoption.**

- **COAI recommends the full absorption costing approach be adopted** as has been proposed in our response to the TRAI Consultation Paper on Accounting Separation.
 - However, if the Authority decides to adopt the **DAIC approach it must be pointed out that the joint and common costs of a service offering of a provider are not included in this approach. In this event, the Authority needs to examine the basis and extent of joint and common costs that will be allowed to be charged.**
- b) **Whether the above costs should be historical costs or forward looking costs?**
- Same response as in Point a) above.
- c) **Which cost elements of PLMN should be taken into account for fixing the mobile termination charge?**
- As stated by TRAI in its Telecom Tariff Order (12th Amendment), 50% of the license fee has been apportioned to airtime charges. COAI proposes that in line with the above, **50% of the fixed costs and 100% of the variable costs should be considered for determining the MTC.** The balance 50% of the fixed costs could be allocated towards the rentals.
 - As mentioned in our earlier response relating to the TRAI Consultation Paper on Accounting Separation, a BFCC on a current cost basis should be used for cost based pricing for existing services. Thus, the principle of enabling the operator to recover the cost of providing service from its tariff could continue to be followed.
 - Unlike in a PSTN, the cost of an incoming call is the same as the outgoing call in a PLMN. Therefore, as mentioned earlier, the operator needs to be allowed to recover the cost of the call from the customer.
- d) **What should be the method to derive the directly attributable incremental costs (DAIC) of terminating a call in the mobile network, from joint and common costs?**
- Not applicable in view of our response above.
- e) **What should be the principle followed in determining the termination charge for incoming calls to cellular mobile, vis-à-vis for outgoing calls from a cellular network? Should originating carriage (i.e. airtime) be the same as terminating carriage (MTC), because both use the same mobile leg?**
- **As per its practice, TRAI should continue to work towards cost based charges for interconnection.**

- **International precedents show that the interconnection rate charged for Fixed to mobile calls are higher than for mobile to fixed calls. According to the ITU Trends 2000 Report, which focuses on interconnection, in Europe, where CPP arrangements prevail, the average fixed-to-mobile interconnection rates are \$0.21 per minute for a 3 minute call. This contrasts with mobile-to-fixed interconnection rates of \$0.01 per minute for local interconnection.**
- f) **Should the termination charge be such that it fully covers the network elements involved in call termination or does it merit a lower pricing as compared to outgoing calls. Such distinction in pricing could be seen as a kind of subsidization of this (incoming) leg of mobile operators provided from rental and/or outgoing calls of cellular mobile? Would such an approach be justified?**
- **We would again like to reiterate that although it would be desirable to fully recover cost of termination through the MTC, this would not be an acceptable to the PSTN consumer who is used to paying a heavily subsidized tariff. The charge / tariff for a PSTN to mobile call will initially have to be lower than its cost. But we submit that it must be linked to the cost of call termination and that this be reviewed intermittently by the Authority to achieve its desired goal of cost based interconnection.**
- (g) **Should MTC be differentiated between peak and off peak hours? If so, how?**
- **TRAI in CPP-99 had stated that the MTC specified would “remain the same for the entire 24 hour period of the day.” TRAI further went on to state that “once detailed billing and calling line identification facility is available in general, and local calls could be easily separated from STD and other calls, a change in this system of constant MTC would be considered by the Authority.”**
 - **COAI submits that in line with TRAI’s earlier determination, the Regulator should refrain from specifying an off-peak MTC.**

III. ADDITIONAL COMMENTS / CLARIFICATIONS

In addition to the above comments / submissions, we would also like to provide additional comments as also clarifications on some statements made by the Authority with respect to cellular mobile operators.

a) **Earlier Submission of COAI in response to TRAI Consultation Paper No. 99/4 on CPP**

- **We are also attaching with this submission, a copy of Section II of our earlier submission to TRAI in the same matter. The issues raised therein, still hold**

true and we would appreciate if the Authority could consider this Annexure as a part of our current submission in the matter.

b) TRAI has stated in Para 3.3 that free incoming calls may be allowed on cellular mobile, without any termination charge paid to the cellular operators” as “a number of cellular operators have on their own started offering free incoming calls without expecting a termination charge, from the originating fixed network.

- We would like to submit that in the first instance, free incoming calls were offered by some operators as a marketing gambit in anticipation of the introduction of CPP from November 1, 1999 as per the TRAI Order to this effect. Sadly, their hopes were belied as CPP could not be introduced due to certain ambiguities / lacunae in the TRAI Act.
- In recent months **some operators have started offering alternate packages, which give free incoming calls to mobile subscribers.** But it must be noted by the Authority that **such packages are accompanied by a imposing a higher commitment fee or a fixed charge from the customers.**

c) Mobile to PSTN Calls

- We would also like to add that **in a CPP regime, the duration of the pulse for mobile to PSTN calls is increased from 30 seconds to 60 seconds,** so that there is uniformity in the cost of the calls.

d) We would also like to quote an example of CPP implementation closer to home in which the following steps were recommended by the PTA (Pakistan Telecommunications Authority) to arrive at a rate of tariff for fixed-mobile calls that PTA considered would be affordable for the fixed-phone customer and would reduce the cost of the mobile operators. The steps were:

- Reduced rent of leased lines that the mobile operators had leased from PTCL (incumbent) for handling traffic on their own respective networks.
- Increasing the PSTN discounts that PTCL was extending at that moment.
- The 2/3:1/3 revenue share between the mobile operators and the fixed operator.

Chapter 4

Technical Issues

I. GENERAL COMMENTS

- **All the technical issues that have been raised in this Consultation Paper were also raised in the earlier TRAI Consultation Paper No. 99/4 and decisions on all the issues were taken after obtaining compliance from all stakeholders namely BSNL, Private Fixed Operators and Cellular Operators. It was only after such compliance was ensured that CPP was to be introduced from November 1, 1999. In fact implementation of CPP was deferred by three months from August 1999 to November 1999 because BSNL wanted more time for modifying their exchanges to make them capable of implementing CPP.**
- In some cases, where the local exchanges had Points of Interconnect (POI) to the mobile networks which were not capable of carrying out the charging functions, new CDOT exchanges were installed and the POIs of Cellular Operators shifted to these new exchanges in preparation for the introduction of CPP. Thus, as mentioned earlier, **all the stakeholders were technically ready for implementing CPP and all major issues had been sorted out.**
- Subsequently, there have been no major changes in the interconnect regime except that after NTP 99, direct inter-connectivity between different service providers in the same service area has been permitted. This development will only further facilitate the implementation of CPP leading to reduced costs and better network utilization.

II. ISSUES POSED BY TRAI FOR DISCUSSION

- a) **Which charging methodology be adopted for implementation of CPP regime in India so that minimum changes are required to be carried out by the service providers in their existing network infrastructure? Whether there is a possibility of implementing CPP through methods other than the four mentioned in this chapter namely, lower pulse interval, multiple pulses, combination of the two, and adding a surcharge to Mobile terminated calls through an off-line billing.**
- COAI believes that a charging methodology as outlined as Option 3 of Consultation Paper, will be a good method. This would be **a mixture of lower pulse intervals and multiple pulses i.e. multiple pulses (say two pulses) are generated on answer and subsequently; a single pulse is generated for every one minute.**
 - **Any other method such as adding a surcharge will be more complicated and difficult to administer** in the present Indian network. As mentioned earlier, the technical feasibility of this method has already been examined by all stake holders and difficulties have been sorted out.

b) **Whether the provision of CCS 7 and CLI in all the exchanges are an essential pre-requisite for implementation of CPP regime or can some interim solution be found for accurate billing, settlement and reconciliation?**

- For providing full reconciliation, it may be necessary to have CC7 and CLI in all exchanges. However, an interim solution was considered and found feasible in CPP-99 for providing accurate billing and settlement.
- In this context, COAI would like to point out that even as of date, full reconciliation for calls from Mobile to PSTN is not possible as BSNL is not generating detailed bills, which can be used by the mobile operator for reconciliation.
- It is therefore submitted that **till CC7 and CLI is not available in all exchanges, the interim solution / arrangements agreed to earlier, be continued.**

c) **Whether implementation of CPP as an alternative to MPP is technically feasible in the existing network? Can both MPP and CPP co-exist in the same network, so that subscribers have a choice of either CPP or MPP, as in the USA?**

- Implementation of CPP as an alternative to MPP has been found technically feasible in the existing network.
- **Co-existence of both MPP and CPP will create complications** and would require alternatives such as inserting a code in the mobile subscriber numbering scheme that would distinguish two types of mobile subscribers i.e. one under CPP regime and another under MPP regime. This is a very complicated arrangement and almost impossible to implement in the present network.
- **Even with the present MPP scheme, many operators are giving this option of free incoming calls to mobile subscribers by charging them different fixed amounts. So the choice for not paying incoming airtime charges already exists in the system.** But if it is to be introduced as an option along with the CPP regime, then it will become a complicated issue.

d) **Whether CPP should be implemented for all types of calls or should there be certain exceptions like international calls and calls from PCOs? If there have to be exceptions, then whether it is technically feasible to forewarn the calling subscriber through a recorded announcement?**

- The **TTO 3 of 99 and 6 of 99** have addressed this issue fully and had **decided that in case of international calls also, the terminating service provider would receive a revenue share as per the CPP regime.**

- In case of **attended PCOs**, there should be no difficulty in following the CPP Regime, as those PCOs are **fully capable of charging based on pulses received from the exchanges**.
 - Of course, **there are difficulties in local coin boxes, which cannot accept multiple tariffs**. However, as coin boxes are developing, Indian network will have coin boxes, which can handle STD calls and ISD calls and such coin boxes will be able to charge as required in a CPP regime. Hence, the issue of outmoded local coin boxes will be a temporary one and with the large number of attended coin boxes available all over the country, there should be no issue.
 - As mentioned in the Telecom Tariff (Fifth Amendment) Order 99 (6 of 99) Explanatory Memorandum Para 15, **the interim arrangement of CPP revenue sharing is to be replaced later by a cost based usage charge that will be derived by the Authority**. Hence these issues are only of a temporary nature.
- e) **Is it feasible to have a separate interconnect billing system based on CLI for carrying out accurate revenue sharing between the PSTN and PLMN operators? Whether a system based on bulk billing can be implemented as an interim measure, till CCS 7 is available throughout the network, to enable a more sophisticated off line billing system for accurate reconciliation and settlement between operators.**
- Yes, it is **desirable to have a separate interconnect billing system for carrying out accurate revenue sharing and especially reconciliation between PSTN and PMLN operators**.
 - However, in the present scenario, **BSNL does not have any incentive to put in place a proper interconnect billing system as they are the only billing authority for interconnect calls**. They do not pay any terminating charge to the cellular operators. **When CPP or cost based termination charge regimes are introduced and BSNL also has to make payments to the cellular operators, then, they will also need re-conciliation and thereby, there will be an incentive for both operators to introduce interconnect billing systems**.
 - **In the interim, COAI submits that a system based on bulk billing could be implemented as is being done for mobile to PSTN calls at present**. In future, the operators can agree on proper interconnect billing systems.
 - However, TRAI must lay down **a time-bound schedule to implement a proper / fool-proof system on interconnect reconciliation for both fixed and mobile network operators**.

f) What should be a reasonable time frame for implementation of the CPP regime in the existing networks? Who should bear the cost of network changes?

- Introduction of CPP is in the interests of both the fixed and mobile subscribers and should be introduced without any further delay. **A reasonable timeframe for implementation of CPP regime in existing networks should be about three months after a decision on the same is taken by TRAI.**
- **The cost of network changes in their networks should be borne by their respective operators.**
