Telecom Regulatory Authority of India

Recommendations
on
Growth of Value Added Services and
Regulatory Issues

13th February, 2009

Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan,
J.L. Nehru Marg, (Old Minto Road)
New Delhi – 110 002
PREFACE

The value added service (VAS) market in India is rapidly growing. It is over 10% of the total revenue of mobile telecom service providers. The revenue from mobile value added services was of the order of Rs.59 billion (INR) for the year 2006-07. With the growth potential the value added services revenue is expected to reach about Rs.250 billion (INR) by the year 2009-10. The mobile revenue through value added services is expected to cross 30% of the mobile telecom service provider’s revenue in the next 5-7 years as reported in various studies/ position papers. While the VAS industry is ripe for scaling newer heights, the concerned stakeholders particularly access service providers have to constructively engage and thus create a self-sustaining and transparent environment for the growth. The telecom operators and value added service providers would need to be concerned about the quality of content, consumer education and transparency in provisioning and charging of value added services.

2. With a view to bringing out all the related aspects of the issue and to provide a suitable platform for discussion, a consultation paper was issued on 28th May, 2008. The consultation paper highlighted various issues pertaining to potential for growth of Value Added Services including status in India, existing provision in various licenses, consumer protection issues and licensing issues-Terms and Conditions for licensing Mobile Value Added Services and Value Added Services to be provided through 3G and Next Generation Network (NGN).

3. Taking into account the comments received from stakeholders both in writing and during open house discussion on 11th July, 2008, the Authority had released its draft recommendations relating to Value Added Services including Mobile Value Added Services for a second round of short consultation with stakeholders on 14th January, 2009. While finalizing these recommendations, the Authority noted that different access service licenses have different provisions relating to Value Added Services. Accordingly, in the recommendations the Authority has
recommended certain amendments to the various access service licence agreements, keeping in view the requirement for uniformity in various licenses and amendment of various access service licence agreements to pave way for growth of Value Added Services particularly in mobile 2G/3G and Next Generation Network environment.

4. The Authority preferred least intrusive and minimal regulatory framework and thus no separate category of licence for value added services is envisaged. After second round of consultations, the Authority is also not favoring registration of Value Added Service Providers (VASPs) or content aggregators under the “Other Service Provider (OSP)” category. Recommendations also include that the Telecom Access Service Providers shall provide fair access to telecom infrastructure to content providers and maintain transparency in their management information system relating to value added services for reconciliation. Regarding reconciliation of the Management Information System (MIS) and calibration of the MIS between the access service providers and the VASPs/ content providers, the Authority is of the view that this should form part of the mutual negotiations between the access service providers and VASPs/content providers. This will bring confidence in the mobile value added services value chain and will also improve reconciliation process in the value chain. DoT being the national numbering plan administrator may make appropriate arrangement for allocation of common short codes (CSCs) for value added services. Mutual negotiations, between access service providers and content providers/value added service providers, for revenue share remains the model. TRAI may in future consider issuing of guidelines on consumer best practices to protect the interest of consumers.

New Delhi
Dated 13th February, 2009

(Nripendra Misra)
Chairman, TRAI
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter No</th>
<th>Chapter Name</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>Summary of Recommendations</td>
<td>4</td>
</tr>
<tr>
<td>III</td>
<td>Licensing/Regulatory Framework for provisioning of Value Added Services</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>including Value Added Services to be provided through Mobile 2G/3G, Next</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generation Network (NGN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annex.1</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Annex.2</td>
<td>62</td>
</tr>
</tbody>
</table>
CHAPTER-I
INTRODUCTION

1. **Background**

1.1 The value added service (VAS) market in India is rapidly growing and has great revenue potential. The revenue estimated from mobile value added services is over 10 to 14% of the total revenue of mobile telecom service providers. The mobile revenue through value added services is expected to cross 30% of the mobile telecom service providers’ revenue in the next 5-7 years as reported in various studies/position papers. As per a recent study report, growth in VAS has been fuelled by the improving quality of handsets and their falling costs, lowering age profile of mobile users and innovative content and packaging. This growth in mobile VAS is going to be a win-win situation for the mobile telecom service providers, value added service providers/content aggregators, handset manufacturers, content developers/authors/creators and others associated with mobile contests/TV shows and streaming audio and video, also an additional facility to the consumer.

1.2 In India, SMS, Ringtone and Colour Ring Back Tones (CRBT) constitute bulk of the value added services currently the mobile telecom operators are providing. VAS delivery has so far been based on the SMS, IVR, GPRS and WAP portals platforms. VAS offerings are in areas such as entertainment, advertisement, gaming, contests such as interactive participations in TV and Radio game, reality shows, news and support such as cricket alert, news alert, travel alert details etc. With the introduction of 3G services, Next Generation Network (NGN)/converged network this is going to change in a big way as high bandwidth multimedia content services, mobile TV and online gaming will push the demand for VAS as well as innovations in VAS products offering. Information products with copyrights are increasing in importance and show a high profit potential. The traditional music industry, the publishing industry, film and TV industries are likely to become main
stream content providers. In the future as wireline and wireless broadband become more ubiquitous, additional value added services such as multimedia messaging, video phone, person to machine, machine to machine, streaming media and on-line gaming will become available for the consumers.

1.3 TRAI had issued a Consultation Paper on Growth of Value Added Services and Regulatory Issues on 28th May, 2008. The purpose of bringing out this Consultation Paper was that considering the market potential for value added service in the coming years the licensing/regulatory framework needs to be harmonized for ushering growth in all the segments of the value added service viz content development, technology platform, content aggregation etc. thereby enabling benefits to consumers and also revenue generation. A need is also felt to facilitate provision of certain content based value added services by the content aggregators/ value added service providers (VASPs). Through this Consultation Paper TRAI sought the views of stakeholders for evolving a licensing/ regulatory framework for value added services and entities involved in providing mobile value added services, including such services to be provided in Next Generation Network (NGN)/ convergence scenario, so as to facilitate orderly growth of value added services in India. The list of stakeholders who had responded to the various issues raised in the Consultation Paper is given in Annex.1.

1.4 TRAI held Open House Discussions on the issues raised in the Consultation Paper in Delhi on 11th July, 2008. Keeping in view the responses received from stakeholders, the draft recommendations in the matter were released on 14th January, 2009 for a second round of short consultation. The list of stakeholders who had responded to the draft recommendations is given in Annex.2. The Authority considered the views of stakeholders received during the second round of consultations and based on such consideration, the Authority finalised its recommendations on “Growth of Value Added Services and Regulatory Issues”. The
summary of these recommendations is given in Chapter-II and the
detailed recommendations, including the examination of the various
issues involved and the responses of stakeholders thereon, are given in
Chapter-III.
CHAPTER – II
SUMMARY OF RECOMMENDATIONS

2.1 A brief summary of the recommendations is given in the following paragraphs. However, for acceptance of the recommendations, DoT may refer to the linked paragraphs and details given in chapter III mentioned in this summary.

2.1.1 Value added services are enhanced services, in the nature of non-core services, which add value to the basic teleservices and bearer services, the core services being standard voice calls, voice/non-voice messages, fax transmission and data transmission (para 3.7.7).

2.1.2 The licence provisions as prescribed in the UASL for value added services be made applicable uniformly across all the access service licenses by either amending all the access service licenses by inserting the following clause for provisioning of value added services or by issuing suitable directions in the matter by Department of Telecommunications (DoT):

“(i) The licensee may provide value added services and or additional facilities in case of any value addition or upgradation that the technology permits subject to intimation about provision of any value added service or additional facility along with details of provision made for lawful interception and monitoring of these services or facilities at least 15 days in advance before the introduction of these services or additional facilities” (para 3.8.9 and 3.8.10).

(ii) Licensee may provide Value added services such as voice mail, audiotex services, video conferencing, videotex, e-mail, Closed User Group (CUG) facilities over its network to the subscribers falling within its Service Area.
(iii) Licensee may provide Internet Telephony, Internet Services; Broadband Services including triple play i.e. voice, video & data and IPTV.

(iv) Licensee cannot provide Public mobile trunking service (PMRTS), closed users group domestic 64 kbps data network via INSAT satellites system and GMPCS which require a separate licence.

(v) All revenue earned by Licensee through these services mentioned in para (i), (ii) and (iii) above shall be counted towards the revenue for the purpose of paying licence fee.”

2.1.3 Apart from the licensing obligation of intimation, 15 days in advance of introduction of any new value added service, and having provision/ arrangements to facilitate its monitoring on demand by security agencies of such new value added service, the following additional obligations to telecom access service providers need to be made for orderly growth of value added services (para 3.9.6):

(i) access service provider shall abide by all the instructions issued, from time to time, by the Department of Telecommunications in regard to lawful interception and monitoring. In order to have a healthy and speedy growth of value added services, it is recommended that the Department of Telecommunications may introduce a concept of self certification by the access service providers in this regard. In this process of self-certification by the telecom access service provider, there will be no delay in launching a new value added service.

(ii) Telecom access service provider shall comply with all the directions/instructions/guidelines issued by the licensor or TRAI regarding provision of value added services, including allotment and opening of common short codes allotted by DoT or its authorised agency.
(iii) Telecom access service providers need to provide fair access to their telecom infrastructure to content providers providing Value Added Services through mutual agreement. This shall include:-

(a) Telecom access service provider shall not block mobile portals to their consumers who have subscribed GPRS or WAP service (web-enabled services) i.e. there will be no selective blocking of mobile portals or short codes.

(b) Telecom access service provider need to maintain transparency in billing for the purposes of settlement of revenue share with the value added service providers/content providers i.e. sharing of usage details, download etc., including user base, in their management information system (MIS) in respect of value added services. This will bring confidence in the mobile value added services value chain and will also improve reconciliation process in the value chain, thereby facilitate smooth business growth of value added services.

(c) Telecom access service providers need to publish the charges for value added services. Further, the access charges shall also be published, if such access charges are different than the charges under the tariff plan applicable to consumers and are not included in the charges of value added services.

(iv) M-Commerce related to Value Added Services involving payment through mobile phones, shall be subject to compliance with Reserve Bank of India (RBI) guidelines, wherever applicable.

2.1.4 The Authority is not in favor of creating a separate category of licence for value added services. The Authority is also not in favor of registration of Value Added Service Provider under the “Other Service Provider” category. The Authority, accordingly recommends that value added service may continue to be provided
through mutual agreement between the telecom service provider and value added service provider/content provider (para 3.10.13).

2.1.5 Since the Authority is neither in favour of a separate category of licence for value added service nor registration of value added service providers, under the OSP category, there is no need to formulate any terms and conditions for licence/ registration of value added service providers (para 3.11.4).

2.1.6 Content shall be subject to relevant content regulation and compliance of prevailing copyrights including digital management rights and other laws on the subject (para 3.12.2).

2.1.7 The content is subjected to content regulation/ guidelines of Ministry of Information & Broadcasting, Information Technology Act, 2000, Cable Television Networks (Regulation) Act, 1995, Indian Copyright Act etc., as amended from time to time. The content regulation shall be as per law in force from time to time. There should be consistency in the treatment of content across all kinds of media including print, digital/multimedia to avoid any discrimination. (para 3.13.3):

2.1.8 (i) DoT being the National Numbering Plan Administrator may make appropriate arrangement for allocation of common short codes (CSCs) for value added services for specific service areas or on all India basis. As per the present DoT guidelines, short codes are allocated by telecom access service providers with level 5 and of minimum 5 digits. To implement the common short code allocation scheme by one nodal agency (say DoT or any other single nodal agency authorized by DoT), it will be appropriate that a directory of all the short codes allotted till date (or any date to be specified by DoT) by various telecom access service providers and DoT is compiled and placed in the website of DoT. Thereafter, DoT may reserve a series of short codes to be allocated by DoT/ single nodal agency authorised by DoT as common short codes (CSCs) and a block of 500 numbers of short codes may be allocated to
each telecom service provider for allocation by them to various users/content providers within their network. DoT may allocate Common Short Codes (CSCs) to telecom service providers/licensees and value added service providers/content providers/users. [para 3.14.14(i)].

(ii) DoT may also consider introducing web based application form for common short codes (CSCs) allotment in time bound manner and also maintain on the website the directory of short codes booked and allocated. This will bring transparency in the system of short code allocation. Similar arrangement can be mandated for telecom access service providers for maintaining directory of the short codes allocated by them and also the operational short codes in their website. DoT may issue revised guidelines including these recommendations to facilitate the orderly growth of value added services. DoT may identify six digits common short codes (CSCs) scheme for future use keeping in view the growth expected in value added services to be provided in 3G and next generation network (NGN) scenario [para 3.14.14(ii)].

(iii) Common Short Codes shall be provisioned based on the specific application/content presented to the DoT. If the content provider wishes at a later date to run a new, modified or additional application/content on the same short code, content provider shall submit the same for information to the DoT/ access service provider [para 3.14.14(iii)].

(iv) Appropriate fee should be charged for allocation of common short code by DoT or its authorised agency so that only the genuine and serious content provider/ value added service provider/entity should seek the same. The appropriate fee for common short codes allocation, for specific service areas or on an all India basis, need to be evolved by DoT [para 3.14.14(iv)].

(v) The service through short code shall be made operational within six months of allocation and DoT shall be intimated about the date of operationalisation of the common short code by the
concerned Value Added Service Provider/concerned entity/telecom access service provider. If no such information is received within six months by DoT it shall be presumed that the common short code has not been made operational and non-utilisation of short code for a period of more than six months will be subject to cancellation of short code and reallocation to other applicants [para 3.14.14(v)].

(vi) The opening of common short code shall be subject to mutual commercial agreement between telecom operators and value added service provider in all cases. The common short code allocated by DoT shall generally be opened and integrated with the IP address given by the Value Added Service Provider within 3 months of the receipt of written communication along with DoT allocation of common short code received from the Value Added Service Provider. The orders/directions/regulations of DoT or TRAI, from time to time, as the case may be, shall be applicable in this regard [para 3.14.14(vi)].

2.1.9 The revenue share, including the charges for accessing the network/service of the telecom service provider may be left for mutual negotiations between the parties, in a transparent manner (para 3.15.12).

2.1.10 (i) Subscribers who have opted-in for specific value added services through short codes, including free services, has the right to receive such services, even though they are registered under NDNC (para 3.16.4).

(ii) Dispute redressal between VASP and telecom access service provider may form part of the commercial agreement between the telecom access service provider and value added service provider. (para 3.16.4).

(iii) TRAI may consider in future issuing guidelines on consumer best practices to protect the interest of consumers (para 3.16.2 and 3.16.5).
CHAPTER – III

LICENSING/ REGULATORY FRAMEWORK FOR PROVISIONING OF VALUE ADDED SERVICES INCLUDING VALUE ADDED SERVICES TO BE PROVIDED THROUGH MOBILE 2G/3G, NEXT GENERATION NETWORK (NGN)

3.1 Presently, in the Indian market value added services are provided either directly by the telecom operators or by third party content aggregators/enablers generally known as Value Added Service Providers (VASPs). Examples of value added services provided directly by the telecom operators are SMS, GPRS, CRBT etc. Examples of value added services provided through VASPs are astrology, ring tones, news alerts/information services, music downloads etc. The commercial arrangements exist between telecom operators and Value Added Service Providers (VASPs) for providing these services. In many of these cases, the VASPs provide technology platform which enables a user to access content on to his mobile or terminal device. In some of the cases the VASPs do not own the contents but they have arrangements with the content providers/content developers or copyright owners known as content owners. For some of the value added services, say SMS or Messaging, the value added services platform including gateway/middleware is provided by the telecom operator and VASP only provides the content. In the commercial agreements, compliance to copyrights, digital rights management including sourcing of the content is the responsibility of VASPs. The various mobile value added services, be it voice based or SMS based, are provided to the mobile phone customers through the SIM Card and through the Short Codes. The marketing of Value Added Services is done through advertisement/media by telecom operators mainly for the contents hosted by them and also through the VASPs. It is noticed that VASPs do have arrangements with various telecom operators for their products and these value added service products are sometimes provided under a unique (common) short code across different networks. In such cases the VASPs also advertise/market the value added services collectively targeting the
customers of different telecom operators with whom they have commercial agreements.

3.2 The value added services value chain consists of following:-
- Telecom operators (access service providers)
- Content Aggregators/Enablers [Value Added Service Provider (VASPs)]
- Content Authors/Producers or copyright owners (Content owners)
- Device/Mobile Handset Manufacturers
- End Users i.e. Customers

3.3 A number of entities are involved in the value chain and various studies made by market research organisations reveal that in the Indian context the well defined structure do not exist. Sometimes one entity performs one or more roles and try to expand their existing roles. As discussed in the preceding para, revenue share arrangements/commercial agreements do exist in the mobile value added services value chain between VASPs and telecom operators. Similarly, at the backend VASPs have commercial agreements with content providers or copyright owners including technology platform enablers or solution providers.

3.4 Some of the value added services are priced to the consumer which may not be affordable to mass market as they may not be commensurate with value perceived by the consumers. Sometime VAS Providers also talk about high share of revenue retained by telecom operators. Therefore, unless there is a rationalization/ transparency in the revenue sharing and pricing, the stakeholders in the value chain of value added services would not feel enthused for subscribing and providing high quality contents/services.

3.5 One of the options could be to have an indicative self regulatory revenue model and another option is to have mandatory revenue model in which a determination can be made for revenue share within the
regulatory framework, but this will need to have licensing regime for VASPs.

**Examination of the main comments by the stakeholders on the issues posed in the Consultation Paper:**

3.6 The Authority has taken the various comments and inputs into consideration and analysed the matter in detail. For sake of clarity the comments/suggestions made by stakeholders are shown below in *italics* and the analysis/consideration of the Authority is made thereafter. A list of stakeholders who have given their comments along with the abbreviations used is placed at Annex.1.

**Issue 1.**

3.7 Does the existing definition of Value Added Services given in license agreement for provision of Unified Access Services (UAS), as mentioned in para 1.3 (of consultation paper), needs any modification or same can be incorporated for the Value Added Service provided through cellular mobile telephone networks, including 3G, IP Multimedia System (IMS) and Next Generation Networks (NGN)? Please give your suggestions with reasons thereof.

3.7.1 The definition of value added services mentioned in para 1.3 of the consultation paper is reproduced below:

“1.3 The licence agreement for provision of Unified Access Services (UAS) define the **Value Added Services**:- “Value Added Services are enhanced services which add value to the basic teleservices and bearer services for which separate licence are issued”. The Government of India issues licenses for the following Value Added Services:-

  (i) Public mobile trunking service
  (ii) Voice mail service
  (iii) Closed users group domestic 64 kbps data network via INSAT satellites system
  (iv) Videotex service
  (v) GMPCS
  (vi) Internet
3.7.2 The comments of the stakeholders on definition of Value Added Services are summarized in para (a) to (c) and analysed in the paragraph following thereafter:-

(a) The definition is adequate (VOICE, Reliance, Consumer Care Society, BPL, Bharti, COAI, AUSPI, IAMAI, i2i Telesource, Star India)

(b) However, COAI and Bharti has in addition stated that if honourable Authority decides to recommend bringing VAS under the license regime, they may revise and enhance the list of VAS for which licenses are issued for operators other than UASL/CMTS and IAMAI has also stated that to avoid any doubts arising on the definition, provision of content and services through SMS, IVR, GPRS or any other carriage technology should be declared possibly freely without obtaining any license or taking any permit. However, in case the Authority recommends a license regime for VASPs, the part which refers to “for which separate license are issued” may need to be revised.

(c) The following disagree with the definition:

(i) BSNL – Para 1.2 more appropriate for adoption as they are of the opinion that the existing definition given in VAS License for VAS as mentioned in para 1.3 is at variance with the provisions of the UASL itself.

(ii) MTNL – Definition to be more comprehensive by including more and more services suggested the definition as :- VAS are services which do not form core or basic service but adds value in total services offering.

(iii) DCL – Suggested classification of the VASs on the basis of certain criteria. Not commented upon the adequacy of the definition as per para 1.3.

(iv) Sasken Communication Technologies – Definition should be augmented to include more content services.

(v) IIM, Ahmedabad (Dr.Rekha Jain) – Need to change the definition as the current one does not distinguish between infrastructure and Value Added Services.

(vi) TATA Teleservices Ltd. – A wider definition to include bearer services of the access provider and which are part of the UASL.

(vii) Definition should be broadened (ITC Ltd., Times Internet, World Phone, WTI and ISPAI)

(viii) The current definition of VAS does not include most of the services and activities that go by the name of Mobile VAS today, such as p2p and a2p SMS services, content download services etc. (Net Core)
The definition appears too broad. The inclusion of GPRS as a value-added service does not, for instance, represent ground-level realities of what might constitute “core” and “value-added” services. As more and more services become “core” and default to the mobile phone – especially as India moves from 2G to 3G – the notion of what is “Value Added” should shift accordingly (Google).

Mahesh Uppal: The proposed definition is “Value Added Services are enhanced services, which add value to the physical infrastructure created by the holders of CMTS and UASL licences.”

3.7.3 Some of the stakeholders have stated that the existing definition of Value Added Services given in the UASL is broad and adequate to cover the Value Added Services provided/ to be provided by 2G, 3G, IP multimedia system (IMS) and Next Generation Network (NGN). Also, the definition is flexible and allows the access service provider to innovate and launch new Value Added Services. At the same time some of the VAS providers are in favour of broadening the definition of VAS.

3.7.4 The fourth Cellular Mobile Telephone Service licence agreement gives details of the tele-services, bearer service and supplementary services. The Tele-services include speech – telephone, emergency calls, data, short message service – communication of messages and facsimile. The bearer services include data transmission in various modes. The scope of the licence given in the Cellular Mobile Telephone Service licence agreements and in the Unified Access Service Licence includes both voice and non-voice messages. The short message service covers Short Message Service (SMS) both voice and non-voice, Multi-media Message Service (MMS) etc.

3.7.5 The Authority has considered the above views of the stakeholders and is of the opinion that although the definition of value added services given in the UASL is generic and adequate, however, more clarity is needed as VAS can be applications, services, products, information or various hybrids. To bring more clarity following definition was proposed in the draft recommendations:-
“Value added services are enhanced services, in the nature of non-core services, which add value to the basic teleservices and bearer services, the core or basic services being standard voice calls, non-voice messages, fax transmission and bearer services.”

3.7.6 During the second round of consultation on the draft recommendations, some of the stakeholders have mentioned that value added services ride on non-voice SMS, MMS which are offered to clients, enterprise, individuals i.e. mobile banking, push-messaging etc. and leaving them out of the scope of M-VAS may have detrimental effect.

3.7.7 Considering the above suggestions, the following definition for value added services is recommended:

“Value added services are enhanced services, in the nature of non-core services, which add value to the basic teleservices and bearer services, the core services being standard voice calls, voice/non-voice messages, fax transmission and data transmission.”

Issue 2.

3.8 Whether there is a need to bring uniformity or clarity in the licensing conditions of mobile telecom operators / access service providers with regard to provision of Value Added Services?

3.8.1 The comments of the stakeholders on the need to bring uniformity or clarity in the licensing conditions of mobile telecom operators / access service providers with regard to provision of Value Added Services are summarized in para below and analysed in the paragraph following thereafter.

3.8.2 Except Consumer Care Society, Bangalore, all other stakeholders have supported the need for bringing uniformity and clarity in the licenses.

3.8.3 There is no uniformity or clarity in the licensing conditions of the cellular mobile telecom service licensees/unified access service licensees
and basic service licensees with regard to provision of value added services. This is evident from the following:

3.8.4 **Unified Access Service (UAS) Licence:-**

(i) Under UASL the access providers have scope for providing:

- Broadband services including triple play i.e. voice, video and data.
- Value added services such as voice mail, audiotex services, video conferencing, videotex, e-mail, Closed User Group (CUG) facilities over its network to the subscribers falling within its Service Area on non-discriminatory basis.

(ii) The Licensee cannot provide any service except as mentioned above, which require a separate licence. However, intimation before providing any other Value Added Service has to be sent to the Licensor and TRAI. No separate entry fee is charged for voice mail, audiotex, video conferencing, videotex, e-mail service provided by UAS Licensee. However, all revenue earned by the UAS Licensee through these services is counted towards the revenue for the purpose of paying licence fee.

3.8.5 **Cellular Mobile Telephone Service (CMTS) Licence (fourth)**

(i) Scope of the Licence has been stated as under:-

The licensee shall be permitted to provide in its area of operation, all types of mobile services including voice and non-voice messages, data services and PCOs utilizing any type of network equipment (however, the technology must be digital) including circuit and or packet switches that meet the relevant International Telecommunication Union (ITU)/Telecommunication Engineering Center (TEC) standards.

(ii) As per the amendment in CMTS License Agreement issued in 2001 or thereafter, Licensee can provide Internet Telephony, Internet Services and Broadband Services including triple play i.e. voice, video and data.
(iii) The licensee shall be free to enter an agreement with other service providers in India or abroad for providing roaming facility to its subscribers under full mobility service unless advised/directed by licensor otherwise.

(iv) However, Licensee cannot provide any service except as mentioned above, which require a separate licence.

(v) In the scope of the Licence Agreement of the Cellular Mobile Telephone Service there is no mention of provisioning of Value Added Services. However, it may be implied that they can provide Short Message Service (SMS) and data service as Value Added Services. Further at clause 24.10 of Licence Agreement it is stated that “The Licensee may provide additional facilities in case of any value addition/upgradation that the technology permits at later date, subject to approval of Licensor”.

There is need for bringing about clarity in the scope of licence agreement for Cellular Mobile Telephone Service (CMTS) about various Value Added Services.

3.8.6 **Cellular Mobile Telephone Service (CMTS) Licence (Old)**

(i) In the Licence Agreement under the heading “Permitted Services” following clauses exist:-

“12.2 The Licensee shall provide all such services which are available in GSM MoU 90 days prior to the date of commissioning and decided by the Authority (Director General of Telecommunications, Govt. of India).

12.3 The Licensee shall provide unrestricted access for his subscribers to all services including Value Added Services available on PSTN.

12.4 The Licensee shall not engage in the business of the provision of Value Added Services based on the Cellular Mobile Service without specific permission of the Authority”.

3.8.7 **Basic Services**

(i) In the Licence Agreement the scope of Licensee is stated as under:-
Clause 2.2(a), the service covers collection, carriage, transmission and delivery of voice or non-voice messages over Licensee’s PSTN in the Service Area and includes provision of all types of services except those which require a separate licence.

(ii) Access service providers have been permitted to provide Internet Telephony, Internet Services and Broadband Services including triple play vide amendment letter no, 10-21/2005-BS-I(Vol. II)/56 dated 14.12.2005

3.8.8 The present licensing regime for Cellular Mobile Telephone Service provide for provision of appropriate monitoring facilities for all types of Value Added Services and additional facilities. However, the licensor had noticed that Telecom Service Providers expand their operations by introducing different value added services and additional facilities without implementing systems to monitor these services/facilities. Therefore, the Department of Telecommunications vide letter No.842-336/2004-VAS/19 dated 17th September, 2004 and No.842-336/2004-VAS/22 dated 21st October, 2004 directed all Cellular Mobile Telephone Service Providers (including those migrated to UASL) “to intimate the details of various value added services and additional facilities available in their network along with the details of provision made for lawful interception and monitoring of these services/facilities within 45 days from the date of receipt of this letter and if monitoring facility is not available, plans to provide these monitoring facilities with specific time frame. In future licensee should intimate the licensor about provision of any new service/facility along with details of provision made for lawful interception/monitoring of these facilities at least 15 days in advance before the introduction of these services/facilities”.

3.8.9 Considering the views of the stakeholders and above observations made, the Authority feels that there is a need to bring uniformity in the licensing conditions for providing value added services. **It was proposed in the draft recommendations that the licence provisions as prescribed in the UASL for value added services be made applicable**
uniformly across all the access service licenses. This may be done by amending all the access service licenses by inserting the following clause for provisioning of value added services or by issuing suitable directions in the matter by Department of Telecommunications, wherever required:-

“(i) The licensee may provide value added services and or additional facilities in case of any value addition or upgradation that the technology permits subject to intimation about provision of any value added service or additional facility along with details of provision made for lawful interception and monitoring of these services or facilities at least 15 days in advance before the introduction of these services or additional facilities;

(ii) Licensee may provide Value added services such as voice mail, audiotex services, video conferencing, videotex, e-mail, Closed User Group (CUG) facilities over its network to the subscribers falling within its Service Area.

(iii) Licensee may provide Internet Telephony, Internet Services; Broadband Services including triple play i.e. voice, video & data and IPTV.

(iv) Licensee cannot provide Public mobile trunking service (PMRTS), closed users group domestic 64 kbps data network via INSAT satellites system and GMPCS which require a separate licence.

(v) All revenue earned by Licensee through these services mentioned in para (i), (ii) and (iii) above shall be counted towards the revenue for the purpose of paying licence fee.”

3.8.10 During the second round of consultation, the authority did not receive any comments on the above proposal from the stakeholders. As such, the Authority recommends the above proposals.
3.9 Apart from the licensing obligation of intimation before introduction of any new value added services and the measures to facilitate monitoring by security agencies of such new value added service, is there a need to put any other obligation on telecom operators?

3.9.1 The comments of the stakeholders on putting additional obligation on telecom operators are summarized in para (a) to (h) and analysed in the paragraph following thereafter:

(a) **AUSPI, BPL, BSNL, Reliance, IIM, Ahmedabad, Star India and World Phone** – No other obligation required to be imposed except intimation to the licensor before introduction of any new VAS service on their mobile network as per license agreement. According to AUSPI a checklist for self certification regarding compliance to UASL terms and conditions should be enough for the service provider to offer service without awaiting any additional or formal clearance.

(b) **COAI** – Current licensing obligations are appropriate and adequate. Security clearances be granted and service approved in a time bound manner. Clear cut guidelines for compliance may be laid down which could be followed by other operators for launch of the same product/service. Once this has been done, introduction of same product/service by other operators should be permitted on a self certification basis. In respect of VAS which is tailored to meet consumer requirements and have no impact on either the Government exchequer or any security implications such as Services like 2 in 1, PTT, it is submitted that operators should only be required to intimate DoT for introduction of the same.

(c) **Times Internet**: Yes, TRAI should push for transparency on MIS by mandating Mobile operators to share data about downloads, usage etc. on VAS services. The same should be published as it is done in the case of no. of customers for telecom operators.

(d) **Tata**: It should be brought out clearly that the responsibility of meeting the content requirement issued by the appropriate content regulator or the applicable Act or Regulations/Guidelines issued under the Act such as the ‘Cable Act’ or the ‘IT Act’ or ‘RBI Act’ should be that of the owner/generator of content. Also, the requirement of introducing measures to facilitate monitoring by the security agencies must also continue and if any Security agency feels that they require any kind of monitoring/testing, that should be provided/facilitated by the UASL. Therefore, the launch should not be linked to Licensor’s approvals.

(e) **Transparency in tariff is important and obligation on telecom operators for the same. – [VOICE & MTNL]**.

(f) **DCL**: Sharing of CDR for the purpose of reconciliation between the VAS provider and telecom operator.
(g) There is definitely a need to impose obligations on telecom operators to provide fair access to telecom infrastructure to independent VASPs *(Net Core, WTI)*

(h) **IAMA, i2i Telesource**: Additional obligations on operators may be put in the field of (a) Operation of short codes, (b) Clear Access and interconnect norms (c) Mutually acceptable, transparent and standard MIS & reconciliation process across board. With respect to specifying end user charges, the responsibility must rest with Telecom Operators for “On Deck” services and with the content / service provider for “Off Deck” services.

3.9.2 The Authority had observed that value added services can be provided, by the industry, through two models namely, “On Deck” and “Off Deck”. “On Deck” services basically mean the value added services branded by telecom service provider or there is co-branding i.e. service provider and Value Added Service Provider. However, for provisioning of value added services a dedicated value added services platform or technology solutions could be implemented by telecom access service provider or content aggregator called Value Added Service Provider and the sourcing of content is done through content providers. In this case tariff for value added services is decided by telecom access service provider and access service provider is fully responsible to the customer. Presently in India “On Deck” services are branded, marketed to consumers by entities such as STAR’s 57827 service, Indiatimes 58888 service, etc. “Off Deck” (direct to consumer) services can be directly marketed by content providers / content aggregators and customers can be charged for contents by such content providers called Value Added Service Providers. In this case, for customer issues related to content/value added service will have to be the responsibility of the Value Added Service Provider. The service is branded by the Value Added Service Provider only. A service can be considered “off deck” in true sense when the consumer in its totality is dealt by the value added service provider. Content quality, provisioning, charging/billing, including collection, and customer care etc. form the part of managing customer expectations. Further, if charging/billing, including collection and customer care, remains with telecom operators then it cannot be considered as “Off deck”. “Off deck” mode value added services as application services, has
growth potential because of its “open access” which gives it a much better chance of reaching consumers via the Internet, WAP browsing, GPRS etc. However, in Indian scenario where the prepaid consumer base is more than 90%, charging separately by value added service provider becomes a difficult proposition. The telecom access service provider shall be benefited with adoption of such content based value added services by consumers as they will earn more revenue through their SMSs, GPRS, WAP etc. The Authority felt that there is a need to create conditions of cooperation, collaboration and competition in provisioning of value added services in 2G / 3G mobile network, Next Generation Network (NGN) and broadband network.

3.9.3 The Authority had considered the views of the stakeholders and had proposed in the draft recommendations that apart from the licensing obligation of intimation 15 days in advance of introduction of any new value added service and the measure to facilitate monitoring by security agencies of such new value added service following additional obligations to telecom access service providers need to be made for orderly growth of value added services:

(i) access service provider shall abide by all the instructions issued, from time to time, by the Department of Telecommunications in regard to lawful interception and monitoring. In order to have a healthy and speedy growth of value added services, it is recommended that the Department of Telecommunications may introduce a concept of self certification by access service providers in this regard. In this process of self-certification by telecom access service provider, there will be no delay in launching a new value added service.

(ii) Telecom access service provider shall provide fair access to telecom infrastructure to independent content providers providing Value Added Services under “Off- deck” model. This shall include:-
(a) Opening of common short codes allocated by DoT / any other single nodal agency authorised by DoT with tariff under forbearance policy. The details in this regard are discussed later in these recommendations.

(b) All short codes allotted by access service provider to any VASP for providing Value Added Services shall be published on its website and also the same shall be intimated to DoT.

(c) Telecom access service provider shall not block mobile portals to their consumers who have subscribed GPRS or WAP service i.e. there will be no selective blocking of mobile portals or short codes.

(d) Telecom access service provider shall maintain transparency in their management information system (MIS) in respect of value added services such as downloads, usage etc. This will bring confidence in the mobile value added services value chain and will also improve reconciliation process in the value chain.

(e) Telecom access service provider shall publish their access charges applicable to the consumer for various content based mobile value added services which can be provided in the “off deck” mode, if such access charges are different than the charges applicable under the tariff plan applicable to consumers. Further, such access charges, including charges for non-voice messages, to the consumer shall not be less than the access charges applicable under the tariff plan subscribed by them. Telecom service provider shall also publish the carriage charges, wherever applicable. The opportunity for “off deck” or direct to consumer shall fuel the mobile content market growth. Presently access service provider basically decides the pricing of both “off deck” and “on deck” services. The Authority is of the opinion that in case of off deck services the pricing may be left to the owner of the content or the provider of the service with the
published access / carriage charges from the telecom service provider. This will bring competition, bring down the charges to customers, increase the range of services and transparency in provisioning of “off deck” mobile value added services. However, all “on deck” VAS the tariff / pricing shall be determined and charged by telecom access service provider.

(iii) Telecom access service provider shall not be permitted to bundle charges in tariff plans for telephone call (voice), non-voice messages and bearer services with the charges for value added service provided in the off-deck model.

(iv) M-Commerce related to Value Added Services involving payment through mobile phones, shall be subject to compliance with Reserve Bank of India (RBI) guidelines, wherever applicable.

3.9.4 During the second round of consultations on the above draft recommendations the following comments were received from stakeholders:

**Reliance Communications Ltd.:**

(i) VAS providers are not licensed operators that requires automatic opening of short codes. The commercial arrangements and technical capabilities are pre-requisite for opening of short codes. It is therefore suggested that the draft recommendation should be dropped.

(ii) The draft recommendation would circumvent the licensing agreement between the government and the operators and therefore need to be legally examined.

(iii) We have not come across any of the international precedent in USA, UK, Canada, France etc telecom operators have been mandated to publish the carriage fee for the premium services like VAS. The regulatory intervention is micro regulation is likely to distort the market dynamism which may not be conducive for the healthy growth of the services. It is also odd that VASPs are not mandated to publish tariffs on a transparent basis if in an OffDeck model they are responsible for pricing. The rules need to apply to all parties equally and one party can not be let off.

(iv) Reconciliation of MIS is being discussed without fully understanding of the billing systems. This pertains only to an OnDeck model and
therefore only to be mutually agreed upon by the two parties. Reconciliation for Off Deck billing is necessary and VASPs must provide published and transparent data of downloads, charges etc.

(v) It is therefore suggested that there is no need to mandate publishing of access charges for value added services provided under “Off Deck” model. The revenue share between the telecom operator and VAS provider is determined by commercial agreements and driven by the market dynamics. The draft recommendation may be dropped.

(vi) Generally the VAS and basic services are not bundled. But the proposed recommendation is a micromanagement of market dynamics and not required in the competitive market place. Tariffs should be allowed to be bundled with any value added service or any other product and services.

**Cellnext:**

(vii) Transparency to be clarified as (by transparency it is meant that an online access to VASP or a sharing of logs where online access is technically is not feasible).

(viii) Less to be replaced with more (refer para 3.9.3(ii)(e). If the access charges are allowed to be more than normal tariff to subscribers, then the operators may so price the access charges as high as required, and defeat the very core of the solution.

**IAMAI:**

(ix) VAS providers have many services which ride on non-voice SMS, MMS, which are offered to clients, enterprises, individuals i.e. mobile banking, push-messaging etc. and leaving them out of the scope of MVAS may have detrimental effect.

(x) Transparency to be clarified i.e. sharing of logs.

(xi) Further such access charges, including charges for non-voice messages, to the consumer shall not be MORE than the access charges applicable under the tariff plan subscribed by them. If the access charges allowed to be more than normal, then the operator may so price the service that the current revenue share is maintained and defeat the very core of the solution.

(xii) In case of off-deck mode the pricing of content SHALL be left to the owner of the content or the provider of service.

(xiii) In order to ensure a level playing field the authority must mandate that the telecom access provider cannot charge a lower access fee for accessing on-deck content.

(xiv) The restriction on the bundling of the charges in the tariff plans with any kind of content service will create challenges in future. Such options should be left open to commercial arrangements between the VASPs and the operators depending on the case. A VASP or content aggregator who is not looking for a common short code will not be needed to register.
Tata Teleservices Ltd.:

(xv) Telecom service providers shall not be permitted to bundle charges in tariff plans ..... TTL would like to submit that this recommendation is restrictive and not conducive to marketing and promo deals to build usage of VAS.

(xvi) Off-deck VASPs should clearly indicate their customer care number in all their communication to their customers.

Star India

(xvii) The telecom access provider cannot charge a lower access fee for accessing “On-Deck” content - should the owner license such content to the telecom operators portal (in addition to providing the content from their own branded “Off-Deck portal”).

3.9.5 The Authority considered the above suggestions received during the second round of consultations. The authority is of the view that allotment of common short codes is one of the problems being faced by the VAS providers and for the smooth growth of VAS there should be a framework for allotment of common short codes and operationalising of common short codes through telecom access service providers. Regarding the comments of some of the stakeholders for more clarification on transparency in MIS, it is to clarify that transparency here refers to usage details, number of downloads and users etc. There has been a suggestion from some of the value added service providers that the access charges to the consumers for accessing the value added service provided in the off-deck mode shall not be more than the access charges applicable under the tariff plan subscribed by them. Their concern is that if the access charges are allowed to be more than the normal, then the operator may so price the service that the current revenue share is maintained and defeat the very core of the solution. The authority had proposed publication of access/carriage charges by access service providers so that this will bring competition, bring down the charges to customers, increase the range of services and transparency in provisioning of “off deck” mobile value added services. There is an argument that there is no need to mandate publishing of carriage charges for value added services provided under “Off Deck” model as the revenue share between the telecom operator and VAS provider is determined by commercial agreements and driven by the market.
dynamics and that VAS providers are not licensees to be eligible for such an arrangement. Also some of the stakeholders have submitted that the very principle of categorizing the content based mobile value added service provided on the basis of “on-deck” mode and “off-deck” mode is incorrect and unjustified (refer para 3.10.10). The VAS service provider has to use the pipe/ network of the service providers or has to come “on-deck” so as to reach the subscribers of the service provider. Hence these stakeholders have submitted that all VAS services are “on-deck” services and the classification of VAS into “on-deck” and “off-deck” is not justified. The Authority, after considering the above comments of stakeholders, is of the view that while the determination of access charges/ carriage charges to consumers may be left to telecom operators, however publication of the charges of value added services and access charges to consumers would help in pushing the growth of value added services and would facilitate transparency in charging by the access service providers.

3.9.6 Keeping in view the above, the Authority recommends that apart from the licensing obligation of giving intimation, 15 days in advance of introduction of any new value added service, and having provision/ arrangements to facilitate its monitoring on demand by security agencies of such new value added service, the following additional obligations to telecom access service providers need to be made for orderly growth of value added services:-

(i) access service provider shall abide by all the instructions issued from time to time, by the Department of Telecommunications in regard to lawful interception and monitoring. In order to have a healthy and speedy growth of value added services, it is recommended that the Department of Telecommunications may introduce a concept of self certification by the access service providers in this regard. In this process of self-certification by the telecom access service provider, there will be no delay in launching a new value added service.

27
(ii) Telecom access service provider shall comply with all the directions/instructions/guidelines issued by the licensor or TRAI regarding provision of value added services, including allotment and opening of common short codes allotted by DoT or its authorised agency.

(iii) Telecom access service providers need to provide fair access to their telecom infrastructure to content providers providing Value Added Services through mutual agreement. This shall include:-

(a) Telecom access service provider shall not block access to mobile portals to their consumers who have subscribed GPRS or WAP service (web-enabled services) i.e. there will be no selective blocking of mobile portals or short codes.

(b) Telecom access service provider need to maintain transparency in billing for the purposes of settlement of revenue share with the value added service providers/content providers i.e. sharing of usage details, download etc., including user base, in their management information system (MIS) in respect of value added services. This will bring confidence in the mobile value added services value chain and will also improve reconciliation process in the value chain, thereby facilitate smooth business growth of value added services.

(c) Telecom access service providers need to publish the charges for value added services. Further, the access charges shall also be published, if such access charges are different than the charges under the tariff plan applicable to consumers and are not included in the charges of value added services.

(iv) M-Commerce related to Value Added Services involving payment through mobile phones, shall be subject to compliance with Reserve Bank of India (RBI) guidelines, wherever applicable.
3.10 Whether companies providing Mobile Value Added Services who mainly act as content providers or content aggregators and operate value added services technology platform called Value Added Service Providers (VASPs) need to be brought under the licensing regime or not?

3.10.1 The comments of the stakeholders on the issue of licensing of VASPs are summarized in para (a) to (e) and analysed in the paragraph following thereafter:

(a) No, VAS providers need not be licensed separately – (AUSPI, ISPAI, IAMAI, Consumer Care Society, BSNL, Star India Pvt. Ltd., Mr. Uppal, i2i Telesource Pvt. Ltd., WTI, IIMA, World Phone, ITI)

(b) Any other entity other than UASL/CMTS wishing to provide VAS services is required to take a separate license – (COAI, Bharti, MTNL, Net Core, Times Internet, DCL, SCT & FTPM)

(c) VAS provider should be registered as Other Service Providers – (BPL, Reliance, WTI, World Phone, TATA)

(d) VASPs should be licensed (MTNL, VOICE, DCL, Sasken, Net Core, Times Internet)

(e) Keeping in mind the need to formally recognize mobile VASPs and the difficulties that would be presented by a licensing regime – the objective of any formal public policy towards VASPs should be to define, recognize, organize, and sanction the role of VASPs (Google).

3.10.2 Most of the stakeholders have opined that the value added service providers need not be licensed separately and licensing may not fulfill the objective of growth of value added services. There is a need to facilitate active cooperation of value added service providers / content providers and access service providers for the growth value added services. Further some of the stakeholders have stated that content providers do not own telecom infrastructure, therefore, it would not be appropriate to license them under Indian Telegraph Act, 1885. An association namely, IAMAI (Association of VASPs) has also indicated that there is no requirement of bringing VASPs under licensing. However, they have emphasized that there is need to address the issues particularly on short codes allocation, transparency in facilitating access to content and transparency in exchanging MIS and revenue share. Once these
issues are addressed, then there would be no further benefit of any kind by licensing of the mobile value added services industry. Some of the stakeholders have stated that if any value added service provider such as content provider or content aggregator wants to provide the value added services on its own and its own brand name then it should obtain registration from the DoT / competent authority as in the case of Other Service Providers (OSPs). There should be minimal restrictions / obligations under such registration. However, there will be need to prescribe guidelines / content code which shall be observed by all such service providers and as far as possible the industry should have self-regulatory mechanism to ensure that the content code is observed by all service providers.

3.10.3 One of the stakeholders namely, M/s. Netcore has emphasized that there is a need to bring VASPs under licensing regime and this is necessary in order to ensure that consumers interest as well as the interest of smaller VASPs are safeguarded. The regulation is necessary to monitor and protect the interests of all stakeholders.

3.10.4 Before the issue of licensing of VASPs is considered, it is worthwhile to examine the status of licenses issued for value added services. Presently, licenses are issued for the following value added services:-

(i) Public mobile trunking service  
(ii) Voice mail service  
(iii) Closed users group domestic 64 kbps data network via INSAT satellites system  
(iv) Videotex service  
(v) GMPCS  
(vi) Internet  
(vii) Audiotex  
(viii) Unified messaging service

3.10.5 Out of the above value added services, Public mobile trunking service, Closed users group domestic 64 kbps data network via INSAT satellites system and GMPCS services are not provided by access service providers. Access Services Providers have been allowed to provide Voice
Mail/Audiotex/Unified Messaging Service to the subscribers falling within their service area on non-discriminatory basis. As on 31.01.2007 there were a total of 15 Licenses for Voice Mail/Audiotex/Unified Messaging Service in 07 cities owned by 09 companies. Presently, there is no licensee for GMPCS. From the above, it is seen that there is not much interest for taking license for these value added services. A major reason for this seems to be the fact that most of these services are provided by the access service providers. At the same time mobile value added services, mainly provided by cellular mobile operators through multiple application providers/content aggregators, are expanding rapidly, both in numbers and variety. In these circumstances, the issue of licensing of value added services needs to be considered carefully.

3.10.6 Another issue that could arise in the case of licensing of value added services is that new and new value added services are coming up through various innovations in the market. This trend will increase substantially when 3G services and NGN are introduced. It will be difficult to license each service separately.

3.10.7 One of the key arguments in favour of a licensing regime for value added services is to ensure that consumer’s interests as well as the interest of smaller VASPs are safeguarded. Another issue favoring licensing of value added services is for enabling promotion of branding and provision of value added services by the value added service providers such as content provider or content aggregators on their own and in their own brand name. The Authority was of the opinion that these issues can be addressed by means other than through licensing. **Considering the above, the Authority was not in favor of a separate category of license for value added services** as most of the value added services are provided on bearers such as Voice, SMS, GPRS, WAP provided under the existing access provider licenses. However, it was proposed in the draft recommendations that licensing for some of the value added services may continue for which licenses are being issued at present and for the new value added services, for which there are no licenses, OSP registration
shall be done if there is need for common short codes (CSCs) to be allocated by DoT/ single nodal agency.

3.10.8 The New Telecom Policy, 1999 provides that for applications like tele-banking, tele-medicine, tele-education, tele-trading, e-commerce, other service providers will be allowed to operate by using infrastructure provided by various access providers. No licence fee will be charged but registration for specific services being offered will be required. These service providers will not infringe on the jurisdiction of other access providers and they will not provide switched telephony.

3.10.9 During public consultation many of the stakeholders had favored registration of value added service providers under the category of Other Service Providers (OSPs). The Department of Telecommunications had notified the revised terms and conditions for Other Service Providers category on 31st May, 2007. As per these terms and conditions, ‘Other Service Provider (OSP) means a company providing Application Services. Application Services have been defined to mean services like tele-banking, tele-medicine, tele-education, tele-trading, e-commerce, call centre, network operation center by using Telecom Resources provided by Authorised Telecom Service Providers. The Authority felt that since some of the value added services also come under various application services, the value added service providers could also be covered under the Other Service Provider Category and could be registered with DoT accordingly. Further, Department of Telecommunication’s direction No.820-1/04-LR dated 7th February, 2007 to all Internet Service Providers (ISPs), ISPs have to provide Internet connectivity only to the registered Call Centres/OSPs for their operations. As such, it was felt that for those VASPs planning to provide value added services in the off-deck model may have to get themselves registered as OSP for getting Internet connectivity for delivering the content. Hence, the Authority proposed in the draft recommendations registration of Value Added Service Providers or content aggregators, who wish to have common short code allotted by the
Department of Telecommunications (DoT) to provide value added service, as “Other Service Provider (OSP) – Value Added Services” under the OSP category.

3.10.10 During further consultation on the above draft recommendations, the authority has received the following comments:

COAI and AUSPI:

(i) “We would like to submit that the (UASL/CMTS) access providers have obtained their licenses after paying about Rs 1650 crores for a pan-India license and have invested thousand of crores to create state of the art nationwide infrastructure. The access provider has been granted the right to provide access and to have the ownership of the customer only after paying the huge entry fees. In view of the above, we would like to respectfully submit that the very principle of categorizing the content based mobile value added service provided on the basis of “On deck” mode and “Off deck” mode is incorrect and unjustified.

(ii) It may kindly be noted that in order to provide value added services, the VAS service provider has to use the pipe/ network of the service providers or has to come ON DECK so as to reach the subscribers of the service provider. Hence all VAS services are ON DECK services and the classification of VAS into On-deck and Off-deck is not justified. In the present context, response to all the issues relating to ‘On & Off deck’ model are not being commented.

(iii) It should be noted that back door entry (in the name of on-deck and off-deck) should not be allowed and if the VAS provider is willing to gain the access, he has to pay the higher fee to take the access service licence”.

M/s Reliance Communications Ltd.:

(iv) Replacing current VAS content revenue billed by the operator to content VAS being billed by the VASP will reduce overall Operator reported revenues and resultant reduction of AGR payable. In 2009-10 alone an amount to at least 30% of the VAS revenues or loss of AGR on Rs. 1,500/- crores which will impact the govt exchequer by nearly Rs. 200 crore per annum and could become nearly Rs.1,000 crore per annum over the next few years. Loss will be as per the following 6% to 10% is licence fee, plus spectrum fee is between 2 to 3.5%, plus microwave charges on AGR which is between 0.6% to 0.1%. All this revenue will be lost.

(v) “We welcome the TRAI draft recommendation to make registration as OSP mandatory for the VAS providers. The registration of VAS providers as OSPs will bring in some kind of certainty in the business
which would also encourage these operators for content branding and command higher revenue share in the market”.

One 97:

(vi) Typically a service can be considered off-deck when the customer experience in its entirety is managed by a third-party. Billing, collection, QoS and customer care are a part of managing the customer experience and hence should be included in it.

(vii) There will be certain issues which will crop-up in considering off-deck services the way they have been suggested by TRAI

- It will be very difficult to operationalize multiple business models in this model. Here VASPs will be decrementing the consumer’s account being maintained at the operators end. With multiple such service providers giving such services it will lead to the consumer’s balance being utilized for services. This is one of the major sources of complaint against VAS today at the operators customer care.

- There will be a need for a clearing house kind of a facility to ensure that the transactions are cleared at the operators end. This eco-system does not exist and there are no provisions for it in the recommendations.

- The charging throughout required for such service will be a major challenge at the operator end and unless the billing and collection is not done apart from the operator billing system the services will be equally constrained as for today.

- Also there is no clear liability for poor services or wrong charging in case of customer complaints.

(viii) A possible solution for this is to treat the VAS licences will more care and make the entry barrier higher so that a fly-by-night operator does not end up fleecing the consumers. The treatment should be similar to an MVNO since in a way an MVNO also is an application over the operators network. With evolution the line between a MVNO and a VASP will blur with significant overlaps between the two.

3.10.11 The Authority considered the above suggestions by stakeholders and is of the opinion that the issue of level playing field between telecom access service providers and value added service providers and revenue loss to the Government in case the proposal for registration of VASP is pursued, cannot be ignored. Further, even dispute resolution mechanism under the TRAI Act, 1997 is also not applicable to entities registered
under the OSP category as in the TRAI Act only the dispute resolution between two or more licensees or between a group of consumers and a licensee or between the licensor and the licensee or against the decision of the authority by a licensee is allowed. Hence, for mandating the obligations proposed earlier on the telecom service providers and for bestowing on the value added service providers the facilities with regard to allotment and opening of common short code etc. proposed earlier, licensing of value added service provider would become necessary and mere registration of value added service provider may not be adequate.

3.10.12 One of the stakeholders has also commented that if end-to-end customer experience through provisioning of value added services in “off deck” mode is not managed then it may lead to poor services or wrong charging. This could be one of the major sources of complaints. It has also suggested that a possible solution to this is to treat the VAS licenses with more care and make the entry barrier higher so that a fly by night operator does not end up fleecing the consumers. In some of the countries, in 3G scenario, the Mobile Virtual Network Operators (MVNOs) create their niche market in mobile service provisioning with the feature of rich mobile value added services. In the provisioning of value added services MVNO also sources the contents from content providers/content aggregators called value added service providers. With this evolution it is expected that in future once MVNO licensees are in place then the line between a MVNO and a VASP may overlap. The Authority in its recommendations on MVNO has already recommended a new category of licence for MVNO.

3.10.13 Considering the above and since the content providers/value added service providers were generally not in favor of licensing of value added service provider and keeping in view the level playing field issue raised by the service providers, the Authority is not in favor of creating a separate category of licence for value added services. The Authority is also not in favor of registration of Value Added Service Provider
under the “Other Service Provider” category. The Authority, accordingly recommends that value added service may continue to be provided through mutual agreement between the telecom service provider and value added service provider/content provider.

Issue 5:

3.11 If licensing system is to be resorted to for licensing of mobile value added service (VAS) under the Indian Telegraph Act, 1885, what should be the scope of license and other terms and conditions for such licensing?

3.11.1 The comments of the stakeholders on the issue of scope of licence and other terms and conditions for licensing are summarized in para (a) to (k) and analysed in the paragraph following thereafter:-

Responses:

(a) Scope of the license should be defined to cover services to be provided, service area, license fee, monitoring equipment, Content Regulation etc. – (VOICE, MTNL)

(b) Minimum restrictions/obligations – simple registration, guidelines – (BPL)

(c) Should be registered with the appropriate Government Body and need to adhere to all the rules and regulations as stipulated from time to time; such as content not being obscene/anti-social/anti-religion - (TATA)

(d) License may be issued to Indian company under category A: All India and category B: Circle wise. There should be no license fee and the PBG may be Rs. 25 lacs for all India license and Rs. 3 lacs for Circle license. The license period may be 15 years with extension of 5 years at one time – (DCL)

(e) Entry fee of Rs. 10 lacs for license with appropriate performance bank guarantee – (SCT)

(f) Licensing system should be formulated with the aim of obtaining and operating short codes smoothly and in a standardized manner. A light touch licensing regime with minimal obligations and terms and conditions is required which should be published and easily available for long term growth and development and increased investment in the industry there should be no restriction on FDI. Nominal or Nil Fee. No requirement to contribute any Access Deficit Contribution. Matters and issues already regulated under other regulatory regime/statutes should not be addressed by the MVAS Regulatory regime. Content Regulation should continue to be addressed under the IT Act and the Cable Television Networks (Regulation) Act – (IAMAI)

(g) Content shall be subject to relevant content regulation – (AUSPI)
(h) The Authority may recommend suitable terms and conditions ensuring equitable treatment and level playing field amongst all licenses offering equivalent products / services – (COAI)

(i) In order to define the licensing of the VAS, access VAS. All VAS should be routed through VAS players and the operators should act as the interconnect between the VAS players and the consumers – (Times Internet)

(j) Scope of licence must cover rights and obligations of VASPs vis-à-vis sharing of infrastructure with telecom operators including conditions governing SLAs and redressal disputes, revenue share guidelines, obligations with respect to safeguarding consumer interests (Net Core)

(k) There should be no separate licensing system for VAS – (Consumer Care Society, IIM, Ahmedabad, ISAPI, BSNL and World Phone)

3.11.2 There have been various suggestions as to the licensing conditions for VASPs. One of the suggestions is to cover services to be provided, service area, license fee, monitoring equipment, Content Regulation etc. Another suggestion is to have Minimum restrictions/obligations – simple registration, guidelines. There have also been suggestions as to the entry fee, license fee and performance bank guarantee. Since the Authority had come to the conclusion that registration of value added service providers as Other Service Providers (OSPs) will be able to provide growth of VAS under “Off-deck” model, the issue as to whether any additional provisions need to be incorporated in the terms and conditions of OSP was considered. Accordingly, the Authority had in the draft recommendations proposed certain specific terms and conditions in OSP registration for value added services.

3.11.3 The following comments were received during the second round of consultation:

**Reliance:**

(i) The collection of revenues for access and carriage services is guided by the licensing conditions.

(ii) There is no need to specify the above recommendations as these cannot override the conditions laid down in the license. Therefore the Authority is requested to drop this recommendation.
Cellnext:

(iii) M-Commerce transactions are suggested to have end to end encryption, as per the RBI guidelines to Banks-8th Oct 2009. Such encryption is similar to Secured Sockets Layer (SSL) already used on IVR, Net Banking. We trust this clause does not apply to that area, otherwise it would be retrograde. This should be clarified.

(iv) Insert after sole liability of the OSP- “Such liability would follow normal trade practice rules applicable to all” (refer para 3.11.3 of draft recommendations dated 14.01.2009).

(v) Insert after “content” insert “service”. That is content to be read as content/service (refer para 3.11.3 of draft recommendations dated 14.01.2009).

Microsoft Corporation:

(vi) Need to obtain written permission by the VASP for using encryption from access service providers may lead to possible misuse if left to the discretion by the latter and come in the way of consumers having access to the broadest choice of VASPs available in the market.

(vii) Hence, we would recommend that, if at all, the Authority believes that there is a need for a mandate for registration of strong bulk encryption and/or any activity related thereto, it should be only with a designated authority that can be either a particular government agency or an independent & neutral third-party entity.

(viii) Considering that as per the newly introduced Section 84.C by way of amendments to the Information Technology Act 2000 passed by the Parliament in December 2008 may we also suggest that the Authority undertake a thorough and holistic review of the provisions related to encryption in the broader consumer interest at large across all services taking due note of the current trends in cryptography.

Star India/IAMAI:

(ix) In the case of value added services where content and access are priced separately, is it fair to assume that license fee and WPC charges are to be paid only on the access fee and not on the content.

(x) The exclusion of the content/service from payment of WPC charges will enable M-Commerce and other services and bring the pricing on par with e-commerce where no such charge is applicable. To clarify, if a consumer buys a product (say train ticketed) on his mobile phone there is additional charges of WPC & License fee is not applicable if he were to buy the same train ticket on the internet.

(xi) This puts M-commerce at a disadvantage to e-commerce even though with the huge number of mobile subscribers m-commerce can be far more prevalent.

(xii) We therefore request that the TRAI recommend that WPC & other charges be levied only on the access charge and other income of the operator and not on pass through charges.
IAMAII

(xiii) Bulk encryption – “M-commerce transactions are suggested to have end-to-end encryption, as per the RBI guidelines to banks – Oct 8.09. Such encryption is similar to SSL already used on IVR, net banking. We trust this clause does not apply to that area, otherwise it would be retrograde” (refer para 3.11.3 of draft recommendations dated 14.01.2009).

Tata Teleservices Ltd.:

(xiv) Off-deck VASPs should clearly indicate their customer care number in all their communication to their customers.

3.11.4 Since the Authority is neither in favour of a separate category of licence for value added service nor registration of value added service providers, under the OSP category, there is no need to formulate any terms and conditions for licence/ registration of value added service providers.

Issue 6:

3.12 What should be the licensing obligation for protecting copy rights, including digital rights management, and infringement of other laws of the country on value added service licensees?

3.12.1 The comments of the stakeholders on the issue of licensing obligation for protecting copy rights, including digital rights management, and infringement of other laws are summarized in para (a) to (c) and analysed in the paragraph following thereafter:

Responses:

(a) There is no requirement to prescribe any separate and specific obligations under license for Value Added Service Providers to observe the various laws of the country as they are obliged to do so even without any specific mention in the license – (COAI, most of the Stakeholders have similar views)

(b) Intellectual property (including copyrights) should be and are adequately addressed under the existing legal framework on such rights. An infringement of IPR should be addressed by way of an infringement claim, and not as a telecom regulatory / licensing issue. This would ensure consistency in the treatment of IPRs across all kinds of media, including printed, digital and video, and avoid discrimination against the mobile space – (IAMAII)

(c) TRAI’s articulated hope for servers in India does not fully appreciate the reality of global network architecture and global organization
structure. There are ways to meet the government’s important security objectives even taking into account the reality of global network architecture. (Google).

3.12.2 The Authority considered above views of the stakeholders and was of the opinion that content shall be subject to relevant content regulation and compliance of prevailing copyrights including digital management rights and other laws on the subject. The Authority has not received any comments on the above proposal during the second round of consultations. The Authority therefore, recommends that content shall be subject to relevant content regulation and compliance of prevailing copyrights including digital management rights and other laws on the subject.

Issue 7:

3.13 What should be the regulatory framework for content regulation? Please give your suggestions with reasons thereof.

3.13.1 The comments of the stakeholders on the issue of regulatory framework for content regulation are summarized in para (a) to (h) and analysed in the paragraph following thereafter:

Responses:

(a) Besides licensing and operating conditions, it must cover issues CONSUMER PROTECTION, like TRANSPARENCY, INFORMATION, TARIFF, BILLING AND COMPLAINT REDRESSAL – (VOICE)

(b) It is suggested that the Hon’ble Authority may like to address this though a separate consultation process as the issue is very vast and cuts across various sectors – (COAI, Bharti)

(c) The content regulation comes under the purview of Ministry of I & B and should be addressed as per existing laws – (BPL, BSNL, AUSPI, ISPAI, TATA, Consumer Care Society, World Phone, Net Core, i2i Telesource)

(d) VASP shall take measures that prevent objectionable, obscene, unauthorized, harmful, unlawful content or communication infringing copyrights, intellectual property etc. being carried on his network consistent with the legal framework. He shall prevent the carriage of such content on his network immediately after the same is reported to him by the authorized agencies or lawful owners of such property. Content regulation should be outside the scope of the license and should be left to other agencies and legal framework to take care of the same – (DCL)

(e) No fresh regulation required. The registered OSP shall: adhere to the Programme Code (PC) and Advertisement Code (AC), laid down
by the Ministry of Information and Broadcasting from time to time – (Reliance)

(f) Self regulation – (PPL, Times Internet, Star India)

(g) Any prohibitive legislative regime will encounter enforcement difficulties. Content regulation should be governed by existing laws, and not as a regulatory / licensing issue. This would ensure consistency in the treatment of content across all kinds of media, including printed, digital and video medium, and avoid discrimination against the mobile space – (IAMAI)

(h) Regulatory framework may be in the form of guidelines or code of conduct and penalty for violations – (MTNL)

3.13.2 The Authority considered the above views of the stakeholders and was of the opinion that the content is subjected to content regulation/ guidelines of Information & Broadcasting Ministry and Information Technology Act, 2000 and Cable Television Networks (Regulation) Act, 1995, Indian Copyright Act etc. The content regulation shall be as per law in force from time to time. There should be consistency in the treatment of content across all kinds of media including print, digital/multimedia to avoid any discrimination.

3.13.3 The Authority has not received any comments on the above proposal during the second round of consultations. The Authority therefore, recommends that the content is subjected to content regulation/ guidelines of Ministry of Information & Broadcasting, Information Technology Act, 2000, Cable Television Networks (Regulation) Act, 1995, Indian Copyright Act etc., as amended from time to time. The content regulation shall be as per law in force from time to time. There should be consistency in the treatment of content across all kinds of media including print, digital/multimedia to avoid any discrimination.

**Issue 8:**

3.14 Who should allocate short codes for value added services, in order to have uniformity amongst all the telecom operators and also to enable branding of value added services? Please give your suggestions with reasons thereof.
3.14.1 The comments of the stakeholders on definition of Value Added Services are summarized in para (a) to (l) and analysed in the paragraph following thereafter:

Responses:

(a) Telecom Service provider continue to allot - No change required as system directed as per National Numbering Plan by DoT is satisfactory – (AUSPI, COAI, ISPAI, VOICE, BPL, Bharti, BSNL, Reliance, Net Core)

(b) Should be allotted by DoT/ TRAI / Licensor – (IIM Ahmedabad, Consumer Care Society)

(c) TRAI may choose one nodal agency or a single window disbursement system for short codes. This would be accepted by all telecom operators (GSM & CDMA). This could be along the lines of booking in internet domain name and should cover both voice and data short codes – (IAMAI, similar view by PPL)

(d) Access licenses are governed by the DoT and all the content provided by the Content Providers rides on such access providers networks. Therefore, the arrangement of allocating short codes of VAS should continue to be with DoT (assisted by Regulator) for all content providers who possess a valid registration certificate from the appropriate Government body – (TATA, similar view by DCL)

(e) It is a good idea to have uniform short codes for similar value added services among the operators (MTNL)

(f) The Government should look into the internationally accepted best practices and follow the same in the Indian scenario as well, if feasible – (Times Internet)

(g) The number allocation system involves multiple agencies to be contacted. This should be possible through a single window. A regulatory body like TRAI or Industry Association like Cellular Operators Association of India (COAI), Indian Cellular Association (ICA) can coordinate this. Currently, it is very difficult to get a short code configured across multiple operators. This process should be transparent and have representation from the telcos – (World Phone)

(h) It will be useful to introduce the concept of a “short code registry” and “pre-integrated short codes” (Net Core)

(i) Short codes for value added services should be administered by a body(ies) similar to Domain Name Registrars in the Internet arena (Star India)

(j) A centralized body should be responsible for short code allocation (WTI, similar views by i2i Telesource)

(k) TRAI itself or another official body take the responsibility for issuing short codes and once the short code is issued it has to be same for all mobile operators like domain name – (ITC, Mr. Mahesh Uppal)

(l) The process via which short codes are obtained needs to become standardized, transparent and practical (Google)
3.14.2 Most of the stakeholders other than the telecom operators have given their views that the short code should be allocated by one nodal agency. Further they have elaborated that the short code allocation/registration need to be made by one nodal agency in the similar manner as being done for Internet domain name registration. The reason of such demand by VAS providers is on account of delay in getting short code configured across networks of multiple telecom service providers. There has also been demand for TRAI to look into international best practices for allotment of short code.

3.14.3 Presently in India short codes are allotted by the service providers subject to guidelines of DoT, which mandate provision of short code starting with level 5 and of minimum 5 digits. For any Value Added Service provider or content provider to have a common short code across networks of different telecom service providers, he has to approach each telecom service provider with a set of short codes and the short code convenient to all the telecom service providers is operationalized. The problem with this approach is that considerable time is needed for activating a common short code across the different networks. Also the VAS provider is not able to brand his product/content if the same short code is not available with all the access service providers. Therefore, the authority feels that there is a need to address this problem through a system of common short codes (CSCs) to be allocated by one nodal agency.

3.14.4 If we look at international best practices in this regard, it is seen that there is a concept of common short codes. The term “common” refers to the ability of a single short code to work across all networks of telecom service providers. For any brand or enterprise, this translates into one common address, one call to action. In USA, common short codes are easy to obtain and use and are becoming more and more popular in advertisements, in TV shows and on consumer goods. No organisation or brand can afford to be left behind in the rapidly evolving mobile marketplace, and CSCs are an ideal way to quickly reach and engage with
mobile consumers. CSCs can deliver rich media through Multimedia Messaging Service (MMS) as well as text through SMS. According to a study by IDC, the key benefits of common short codes to mobilize a brand include:

**Universality**- CSCs are the carrier-approved and carrier-billed ubiquitous access mechanism for brands to connect and interact with almost all mobile users.

**Total addressable market**- By using wireless messaging software that is already installed in most phones, CSCs have created a substantial addressable market of mobile users.

**Engagement**- Using the same messaging channel through which mobile users communicate and chat with each other, CSCs are ideal for creating engagement and dialog with audiences through a familiar and highly personal medium.

**Return on investment (ROI)** – Mobile marketing campaigns using CSCs can experience an almost immediate ROI. CSCs are relatively inexpensive to implement, allow brands to further leverage existing spends, and directly reach the cell phone users.

**Flexibility** – CSCs offer a flexible call to action and universal key to today’s mobile culture, and they support delivery of a variety of media formats ranging from simple text to multimedia.

3.14.5 Mobile users are increasingly using common short codes to access information and contents and interact with brands and on products, services, and/or media. Mobile consumers are largely prepared to see CSCs used in other creative ways, such as for mobile advertising and outreach as well as for improved customer service – including advance notification of service calls, package deliveries, reservation changes, auctions, or other limit-based services. A telecom service provider specific short code provides access to only its subscriber base.
whereas common short codes (CSCs) allow brands to reach almost all mobile consumer base. CSCs also support premium messaging, where a mobile subscriber agrees to pay a “premium” message charge. TV shows are increasingly turning to such mechanism to increase audience participation and generate revenue in addition to sponsorship and commercials. Premium messaging arrangements are also supported by telecom service providers as they typically involve good revenue share and large volume.

3.14.6 The above features explain the versatility of common short codes and its effective use across different networks. In some of the developed countries the responsibility for allocating short codes is vested with industry organisations. But considering the Indian scenario this approach may not be feasible. In USA there is a concept of common short code (CSCs) and the common short code administration (CSCA) in partnership with NeuStar operates the common short code registry on behalf of participating wireless carriers.

3.14.7 The Authority had considered the suggestions, views/comments of the stakeholders and also looked into international best practices for allocation of common short codes. Accordingly, the Authority proposed in the draft recommendations that DoT being the National Numbering Plan Administrator may make appropriate arrangement for allocation of common short codes (CSCs) for value added services. As per the DoT guidelines presently short codes are allocated by telecom service providers (UASL/CMTS) with level 5 and of minimum 5 digits. To implement the common short code allocation scheme by one nodal agency (say DoT or any other single nodal agency authorized by DoT), it will be appropriate that a directory of all the short codes allotted till date (or any date to be specified by DoT) by various telecom service providers and DoT is compiled and placed in the website of DoT. Thereafter, DoT may reserve a series of short codes to be allocated by DoT/ single nodal agency as common short codes (CSCs) and a block of 500 numbers of short codes
may be allocated to each telecom service provider for allocation by them to various users/content providers who are not registered as Value Added Service Provider under the OSP category with DoT. The Authority further recommends that the DoT may allocate common short codes (CSCs) to telecom service providers/licensees and value added service providers/content providers who are registered with DoT under Other Service Providers (OSP) category.

3.14.8 DoT may also consider the web based application form for common short codes (CSCs) allotment in time bound manner and also maintain on the website the directory of short codes booked and allocated. This will bring transparency in the system of short code allocation. Similar arrangement can be mandated to telecom service providers for maintaining directory of the short codes allocated by them, DoT and also the operational short codes in their website. DoT may issue revised guidelines including these recommendations to facilitate the orderly growth of value added services. The Authority also recommends that DoT may identify six digits common short codes (CSCs) scheme for future use keeping in view the growth expected in value added services to be provided in 3G and next generation network (NGN) scenario.

3.14.9 Common Short Codes shall be provisioned based on the specific programme presented to the DoT. If the content provider wishes at a later date to run a new, modified or additional programmes on the same short code, content provider shall submit the additional programme for approval to the DoT. The content provider shall provide the information to DoT about pricing, modification, opt-in/opt-out logic change, material change in content or change in the brand name etc. in case of “Off Deck” model of value added services.

3.14.10 The fee concept for common short codes allocation could be evolved by DoT so that administrative charges for administering the common short codes are recovered.
3.14.11 The service through short code shall be made operational within one year of allocation and DoT shall be intimated about the date of operationalisation of the common short code by registered Value Added Service Provider/concerned entity/telecom access service provider. If no such information is received within one year by DoT it shall be presumed that the common short code has not been made operational and non-utilisation of short code for a period of more than one year will be subject to cancellation of short code and reallocation to other applicants.

3.14.12 All the telecom access service providers shall have to integrate with tele and bearer service (Voice/SMS/GPRS/WAP) to their network, the common short codes allotted by DoT. All the telecom service providers shall be mandated to open the common short codes allocated by DoT. The common short code allocated by DoT shall be opened and integrated with the IP address given by the Value Added Service Provider free of charge within 10 days of the receipt of written communication along with DoT allocation of common short code received from the Value Added Service Provider. The opening of common short codes shall be supported at different price points transparently including toll-free model (incoming calls/messages to toll-free common short codes / short codes shall be charged to the subscriber of the short code).

3.14.13 The Authority has received the following comments from stakeholders during the second round of consultations:

**Netcore/ Cellnext/IAMAI:**
(i) VAS and content providers should be asked to keep DOT informed. The process of seeking approval will delay the launch of new services.

**Reliance:**
(ii) Opening of Short Codes not Technically Feasible.
(iii) The opening of codes on all India basis may not be consistent with the VASP requirement
(iv) No need for a National Numbering Administrator to review short codes.
(v) Therefore the recommendation should be dropped.
IAMAI:

(vi) The period of operationalising the common short code may be reduced to six months (180 days) to prevent short-code “squatting”.
(vii) It is hoped that the existing VASP who already have short codes, will not face any new guidelines or fees in this context.
(viii) Additional program for INFORMATION to the DOT or telecom access service provider (refer para 3.14.9).
(ix) It is imperative that the authority take inputs from telecom operators and specify maximum billing fees to encourage growth of VAS through off-deck services. To enable the VASP to transparently publish this price, it would be helpful if the TRAI were to mandate a billing and collection charge payable to access service providers as a percentage of revenues (refer para 3.14.14/3.14.15/3.14.16 of draft recommendations dated 14.01.2009 and para 3.15.10 hereunder).

Star India:

(x) The period of one year proposed for operationalizing a CSC is too long.
(xi) It is impressive that the Authority take inputs from telecom operators and specify maximum billing fees to encourage growth of VAS through “Off-deck” services.

Tata Teleservices Ltd.:

(xii) To discourage hoarding of short codes, the authority should allow only 3 months instead of one year for the launch of services from the time of allotment of short codes.
(xiii) The configuration time suggested by the authority is too short – should be three months as new codes need to be first technically and commercially tested before final configuration and integration in the service provider’s network.
(xiv) Short code configuration should be charged at the rate of Rs.5 lakhs per event. This would discourage non-serious players and would not unnecessarily choke the resources of service providers.
(xv) Off-deck VASP should ensure that they do not send unsolicited messages to operators’ customers.

Cellnext:

(xvi) Replace “approval” with “information” (refer para 3.14.9).

3.14.14 The major issues came out during the second round of consultation are that the draft recommendations may be dropped, as opening of codes is technically not feasible and opening of common short codes on an all India basis may be not be consistent with the VASP requirement; the period of operationalisation of the common short code
may be reduced; only intimation to the DoT may be considered in case of change/modification in the program (application/ content) based on which the common short code was allotted; and that the time for configuration of common short code is too short. The Authority has considered these suggestions and is of the view that obtaining of common short code and operationalisation of common short code is one of the major problems being faced by value added service providers. Hence, the authority is in favor of having a centralized agency and a framework for allotment of common short codes. However, since licensing or registration is not considered as a pre-requisite for value added service providers to obtain common short code and “number” being a scarce resource, the Authority is of the view that the common short code should be used efficiently. Therefore, appropriate fee should be charged for allocation of common short code by centralized agency so that only the genuine content provider/ value added service provider should seek the same. Keeping in view the comments of stakeholders, the Authority recommends the following:

(i) **DoT being the National Numbering Plan Administrator may make appropriate arrangement for allocation of common short codes (CSCs) for value added services for specific service areas or on all India basis.** As per the present DoT guidelines, short codes are allocated by telecom access service providers with level 5 and of minimum 5 digits. To implement the common short code allocation scheme by one nodal agency (say DoT or any other single nodal agency authorized by DoT), it will be appropriate that a directory of all the short codes allotted till date (or any date to be specified by DoT) by various telecom access service providers and DoT is compiled and placed in the website of DoT. Thereafter, DoT may reserve a series of short codes to be allocated by DoT/ single nodal agency authorised by DoT as common short codes (CSCs) and a block of 500 numbers of
short codes may be allocated to each telecom service provider for allocation by them to various users/content providers within their network. The Authority further recommends that the DoT may allocate common short codes (CSCs) to telecom service providers/licensees and value added service providers/content providers/users.

(ii) DoT may also consider introducing web based application form for common short codes (CSCs) allotment in time bound manner and also maintain on the website the directory of short codes booked and allocated. This will bring transparency in the system of short code allocation. Similar arrangement can be mandated for telecom access service providers for maintaining directory of the short codes allocated by them and also the operational short codes in their website. DoT may issue revised guidelines including these recommendations to facilitate the orderly growth of value added services. The Authority also recommends that DoT may identify six digits common short codes (CSCs) scheme for future use keeping in view the growth expected in value added services to be provided in 3G and next generation network (NGN) scenario.

(iii) Common Short Codes shall be provisioned based on the specific application/content presented to the DoT. If the content provider wishes at a later date to run a new, modified or additional application/content on the same short code, content provider shall submit the same for information to the DoT/ access service provider.

(iv) Appropriate fee should be charged for allocation of common short code by DoT or its authorised agency so that only the genuine and serious content provider/ value added service
provider/entity should seek the same. The appropriate fee for common short codes allocation, for specific service areas or on an all India basis, need to be evolved by DoT.

(v) The service through short code shall be made operational within six months of allocation and DoT shall be intimated about the date of operationalisation of the common short code by the concerned Value Added Service Provider/concerned entity/telecom access service provider. If no such information is received within six months by DoT it shall be presumed that the common short code has not been made operational and non-utilisation of short code for a period of more than six months will be subject to cancellation of short code and reallocation to other applicants.

(vi) The opening of common short code shall be subject to mutual commercial agreement between telecom operators and value added service provider in all cases. The common short code allocated by DoT shall generally be opened and integrated with the IP address given by the Value Added Service Provider within 3 months of the receipt of written communication along with DoT allocation of common short code received from the Value Added Service Provider. The orders/directions/regulations of DoT or TRAI, from time to time, as the case may be, shall be applicable in this regard.

Issue 9:

3.15 Is there a need to regulate revenue sharing model or should it be left to commercial negotiations? Please give your suggestions with reasons thereof

3.15.1 The comments of the stakeholders on the need to regulate revenue sharing model are summarized in para (a) to (k) and analysed in the paragraph following thereafter:-
Responses:
(a) Regulation of revenue sharing model is needed. – (VOICE, DCL, Net Core, ITC Ltd., Times Internet)
(b) Guidelines to provide a level playing field – (World Phone, WTI, IAMAI, i2i Telesource Pvt. Ltd, Google)
(c) Revenue sharing should not be regulated and this should be left to the commercial negotiation and mutual agreement between the various stakeholders as is the current practice - (COAI, AUSPI, ISPAI, IAMAI, Bharti, BPL, BSNL, MTNL, Reliance, Tata, Consumer Care Society, Sasken, IIM Ahmedabad, PPL, Mahesh Uppal, Google).
(d) The content providers/ aggregators have now more choice of operators to deal with (MTNL, Bharti).
(e) There cannot be a standard revenue arrangement for all content based services as there are innumerable content services aimed at different segments (AUSPI, Reliance).
(f) As long as the operators publish a clear and transparent price for “access” and where applicable “billing” services, there is no need to regulate the revenue sharing model (Star India Pvt. Ltd.).
(g) It has been seen that in some case, as much as 75% of the revenue is given to the VAS providers. In the highly competitive telecom market, the Value Added Service providers will have adequate choice and negotiating power to get reasonable terms for revenue sharing with the chosen telecom operators. (COAI, Bharti).
(h) In some cases the Mobile Network Operators pay VAS players as little as 8%-10% as revenue share (Times Internet).
(i) The revenue sharing will depend upon the cost, the efforts and the contribution of different stakeholders in end to end provision of a Value Added Service to the customers – (BPL)
(j) Revenue sharing will vary from service to service and content to content as cost of the content varies widely – (Bharti, MTNL)
(k) For any revenue sharing model to survive it depends on transparent sharing of usage data, the current practice of the operators does not give confidence on the system. TRAI could perhaps look into measures to increase transparency – (PPL)

3.15.2 The service providers and some of the value added service providers are not in favour of regulating revenue share. According to them the revenue sharing arrangements may be left to mutual negotiations as at present. The major reason advanced by the service providers in favour of mutual negotiations are that the revenue sharing will vary from service to service and content to content as cost of the content varies widely and also the content providers/ aggregators have now more choice of telecom operators to deal with. One section of the value added service providers want Guidelines to provide a level playing
field. Another section of value added service providers is in favour of transparent charges for access and billing services.

3.15.3 During Open House discussions, it was pointed out by some of the telecom operators that the revenue sharing arrangements only between licensees can be regulated. The content providers are in favour of having transparent charges for carriage and billing in respect of “Off Deck” services which can be independently provided by them. The service is run, promoted and marketed by the VASP. This will encourage branding of value added services and will incentivise innovations in value added services. In the case of “On Deck” mode, VAS which are marketed by the VASPs, mutual negotiations for revenue share remains the model. The “On Deck” model implies that the access provider owns and markets value added service to its subscribers and it may or may not further outsource provisioning of those services to VASPs (as vendors).

3.15.4 One of the key concerns of the entities involved in provisioning of value added service is reconciliation of the Management Information System (MIS). The VAS players want a transparent and efficient MIS. According to IAMAI (an association of VAS providers), at present the access service providers’ MIS are received between 90-180 days which is a major impediment to business planning for the smaller VAS companies. Hence, they are in favor of the Authority laying down norms and directing the access service providers to provide online MIS while reconciliation and payments are still left to negotiations between operators and VAS players. Further, they want that the calibration exercise should also be mandated so that the MIS between the operators and the VAS providers can be tested accordingly. The Authority considered these suggestions and was of the view that this should form part of the mutual negotiations between the access service providers and VAS/ content providers.

3.15.5 The trend towards integration and convergence of the telecommunication industry and the media industry, telecom operators and media are all moving in the direction of restructuring to become value
added service providers and as this becomes more focused, the survival space of independent third party VAS providers will become further compressed.

3.15.6 International experience particularly with reference to China indicates that China’s VAS regulatory policy is based on a dual structure in which Ministry of Information Industries (MII) is the only acting as nominal regulator and basic telecommunications operators have de facto both business and supervisory authority. Under Chinese Law, the basic telecom carriers are supposed to be equal partners with VAS providers but in the business reality, they have so much power as to be able to make the rules and punish or control VAS providers at their pleasure and for their benefit. In China the emergence of value added services has become a significant source of both revenue and profitability in the telecommunications value chain. Traditional carriers are determined to capture some of these values, as the margins of their traditional telecom business erode. As per the study paper on “Value Added Services Policy Reforms in China Lessons for and from – the US in managing evolving market by Prof. Richard Taylor”, it is noted that the VAS market in China is in this array with minimal regulation, which has resulted in a variety of consumer abuses and in the effective regulation of VAS entities being shifted largely to the carriers which are also in many cases their competitors. The telecommunications value chain is shifting and shortening in favour of carriers, while regulator assesses how to restore a proper balance. By and large, China’s governmental authorities have not directly intervened in value added telecommunications in the daily conduct of operations, so the basic telecom operators have been acting in the de facto role of manager of value added service providers and directly control their survival.

3.15.7 In the United States FCC does not require registration and licensing of value added service providers, nor does it concern itself (with a few exceptions) with the information content of the services. US does not regulate value added services. In the US also incumbent carriers
nearly desperate to extend themselves beyond their traditional voice services have expressed a clear desire to be able to charge, and possibly to pick and choose, between third party VAS carried over their networks, as well as offer their own services. However, in China, the desire to regulate lightly the VAS has run up against the monopoly powers of incumbent national operators to operate as both manager and regulator of third party value added service providers while at the same time they have clear conflict of interest in desiring to capture those opportunities for themselves.

3.15.8 In the United States there is a debate on net-neutrality in pricing. This principle of net-neutrality on services offered through Internet has resulted in considerable innovation and the rise of businesses such as Google, Yahoo, MSN and many other companies that do not own infrastructure. They were able to innovate at the ‘edge’ of the network and create many new applications and new ways to distribute content. Networks could not discriminate with respect to the identity of those receiving information packets and the function they performed, the content of the packets, the frequency of interactions, etc. The only discrimination that networks were allowed was their ability to price according to bandwidth used.

3.15.9 It may be seen that in the case of net-neutrality services the carriers are concerned about charging for the bandwidth used or telecom resources used, irrespective of the content. The charging is done by the content providers. In the case of value added services, the problem in India is the value for the content, which is very small in many cases such as ring tone/ music download. These small values are not feasible to be billed and charged directly by the content provider through credit cards etc. Since the number of customers who have credit card facility is very limited and the content provider will be unable to market the service in a big way. Hence, for billing and collection of charges the cooperation of the access service provider is necessary. In these background mutual agreements on revenue sharing comes into play. At the same time a
transparent, across the board, charges for access and charges for billing together with common short codes could give a boost to the VAS industry, especially with regard to VAS to be provided in “Off Deck” mode.

3.15.10 Keeping in view the above, the Authority had proposed in the draft recommendations that the access service providers may be mandated to publish their access charges for value added services provided under “Off Deck” model.

3.15.11 The Authority has received the following comments from stakeholders on the above draft recommendations:

**AUSPI and COAI:**

(i) *Revenue sharing between the various stakeholders should be left to the commercial negotiations and mutual agreement between the various stakeholders. Interfering into the commercial negotiations would destroy the free play of market forces.*

(ii) *It is reiterated that in a highly competitive telecom market like India with the presence of 12-15 operators in every service area and with the introduction of 3G services, the number of operators will only increase. It is also submitted that each operator is making all sincere efforts to serve the market through innovative products, services, tariffs & hence to make their service distinctive, the operators’ requirement for a good content/ VAS is very high. Therefore, the VAS providers will have adequate choice and negotiating power.*

**Netcore:**

(iii) *Netcore is of the opinion that it would be good if TRAI specifies separate revenue shares for each of the services in the off-deck as well as the on-deck model. TRAI needs to intervene.*

(iv) *Netcore would like to appeal to TRAI to make further clarifications on this very important point. The ability to collect money (through operators) from subscribers will energize content and VAS providers.*

(v) *For billing services there could either be a revenue share or a fixed price defined by TRAI.*

(vi) *This is once again an argument in favour of TRAI setting the revenue shares for all services provided by the telecom operator.*

**Cellnext:**

(vii) *“VASP” to be replaced with “operators” (refer para 3.15.3).*

(viii) *Insert after “view that” there should be “transparency through online MIS” (refer para 3.15.4).*
Star India:
(ix) VAS which are marketed by the Telecom Operator, acting as VASP, mutual negotiations for revenue share need to continue.

IAMAI:
(x) In the case of on-deck mode, VAS, which are marketed by the operators, mutual negotiations for revenue share need continue (refer para 3.15.3).

3.15.12 The major suggestions received by the Authority during the second round of consultation are that the revenue share should be left to commercial negotiations between the parties; for on-deck VAS which are marketed by telecom service providers mutual negotiations for revenue share need to continue and that the authority may specify separate revenue share for both on-deck and off-deck value added services. The Authority considered these suggestions and is of the view that the revenue share, including the charges for accessing the network/service of the telecom service provider may be left for mutual negotiations between the parties, in a transparent manner.

Issue 10:
3.16 Any other suggestions with reasons thereof for orderly growth of mobile value added services including such services to be provided in 3G, next generation network (NGN) environment?

3.16.1 The comments of the stakeholders on other suggestions for orderly growth of mobile value added services including such services to be provided in 3G, next generation network (NGN) environment model are summarized in para (a) to (k) and analysed in the paragraph following thereafter:-

Responses:
(a) Existing MVAS providers be given a grace period say one year to bring their operations in line with regulatory requirements and for a smooth transition of existing contracts to new contracts – (IAMAI, i2i Telesource)
(b) We believe that there should be light touch licensing and regulatory approach for the VAS segment facilitating free play of market forces. The rapid expansion of unique and innovative value added services should not be shifted through over prescriptive licensing and regulatory provisions – (COAI, BPL & BSNL)
(c) Any restriction with licensing and regulations will dampen the innovation of the industry. Authority’s main consideration should be to encourage and support. The Authority may consider to specify interoperable standards for network based services like Person to Person MMS so that services are available across networks – (AUSPI & Bharti)

(d) At present each VASP need to have connectivity and Agreement with each Telecom Operator for providing VAS. The present arrangement is complex, costly and time consuming. In long run, there is a need to have a common platform (in line with NIXI for Internet services) for interconnecting multiple operators with multiple VASPs to save the cost on multi point infrastructure. Any new or existing VASP just need to seek interconnectivity with National Interconnecting Node. From consultation paper, it appears that guidelines are being framed for VAS in Mobile service. VAS guidelines framed through this consultation papers need to be equally applicable for Fixedline service – (MTNL)

(e) Specify interoperable standards for network based services like P2P MMS so that services are available across networks. Once DoT has been intimated about VAS by a service provider and service provider also informs about the availability of LIM, then they may be allowed to offer services without awaiting any additional clearance. The content based services like video and audio streaming, online gaming, tele-voting etc. are offered using voice calls, SMS, MMS are monitorable through LIM and as such there should not be any additional reporting requirement for content based VAS. Mobile Values added service providers should register as OSPs – (Reliance)

(f) Responsibility of UASL/Access provider relating to content carried on the network be limited to identify the source of the content generation as long as it is licensed content provider. Content providers shall be responsible to ensure compliance on various aspects like type of content, non-infringement of copyright, intellectual property rights etc. UASL should be obliged to carry the contents of only such licensed Content Providers- (TATA)

(g) It should be made mandatory for the operator to provide access, codes, and other resources on equitable basis to the VASPs seeking resources from them. Reasons for the delay or decline should be provided by them. Only then a competitive VAS scenario shall emerge. Traffic reconciliation process currently dictated by the telecom operators should be regulated and be allowed to make it transparent – (DCL)

(h) Government should further look into some of the VAS services for the future which will act as the growth drivers – (Times Internet)

(i) Complete deregulation of the market is best way forward (Mahesh Uppal)

(j) The TRAI must, using their ability to modify license conditions, insist that Mobile Operators are utilities and thus must necessarily
allow open and free access to their consumer base through standard agreements and published tariffs (Star India)

3.16.2 Many of the above suggestions were taken into account by the Authority while finalising the draft recommendations. The Authority had proposed that it may consider issuing guidelines on consumer best practices. These guidelines may cover the following:

(a) The provisioning of VAS must be in accordance with the law of the land, rules and regulations issued by the DoT and regulations, directions and orders issued by TRAI.
(b) VASPs/Access Providers must obtain explicit consent from subscribers before activation of value added service.
(c) Subscription/un-subscription of VAS (opt-in/opt-out) for consumers must be easy and should not have any chance for accidental subscription.
(d) Programme pricing information should be clearly and transparently indicated.
(e) Subscription terms and billing/charging is disclosed in advance to the customer.
(f) Charging and collection procedure and methodology to be indicated transparently.
(g) In the case of a time-based programme, the lines should not remain open after the time for calling/subscription to the programme is over.

3.16.3 The authority has received the following comments from stakeholders during the second round of consultation:

**Netcore:**

(i) Netcore would like to have an explicit clarification that users may indeed opt-in for free information alert (subscription) services through short codes. TRAI draft recommendations document is completely silent on dispute redressal. In the light of this it becomes important for TRAI to issue a clarification to the effect that ‘Opt-in overrides NDNC registration’. Every subscriber should have the option to register under NDNC and hence protect himself from un-solicited communication. However a subscriber who has registered under NDNC yet has the right to opt-in to any service voluntarily. Due to lack of clarity, currently subscribers under NDNC are not allowed to be offered services even if they have voluntarily opted-in to a service.
IAMAI

(iii) Recommendations may include dispute redressal between VASP and telecom access provider, formation of an inter industry body comprising of representatives of telecom operators industry body and VASPs industry body/representatives and registered VASPs may approach the TDSAT for redressal of grievances.

3.16.4 The authority has considered the above views of the stakeholders and **is of the view that subscribers who have opted-in for specific value added services through short codes, including free services, has the right to receive such services, even though they are registered under NDNC.** Regarding the suggestions for recommending dispute redressal between VASP and telecom access service provider, the Authority is of the view that this may form part of the commercial agreement between the telecom access service provider and value added service provider. The value added service providers do not come under the purview of the TRAI Act, 1997 for dispute redressal as Value Added Service Providers are not licensees.

3.16.5 **Regarding the guidelines on consumer best practices, the Authority reiterates the proposal to consider issuing such guidelines in future to protect the interest of consumers.**

3.16.6 The Authority has envisaged a light touch approach for regulating value added services in India. The Authority hopes that the above recommendations could pave the way for growth of the value added services in India.
Annex.1

List of stakeholders who have given their views on the consultation paper

<table>
<thead>
<tr>
<th>Sl.no.</th>
<th>Stakeholder’s name</th>
<th>Abv.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Service Providers Associations</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Association of Unified Telecom Service Providers of India</td>
<td>AUSPI</td>
</tr>
<tr>
<td>2.</td>
<td>Cellular Operators Association of India</td>
<td>COAI</td>
</tr>
<tr>
<td>3.</td>
<td>Internet Service Provider Association of India</td>
<td>ISPAI</td>
</tr>
<tr>
<td>4.</td>
<td>Internet &amp; Mobile Association of India</td>
<td>IAMAI</td>
</tr>
<tr>
<td></td>
<td><strong>CAGs/Consumer Groups</strong></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Consumer Care Society, Bangalore</td>
<td>CCS</td>
</tr>
<tr>
<td>6.</td>
<td>Voluntary Organization in Interest of Consumer Education</td>
<td>VOICE</td>
</tr>
<tr>
<td>7.</td>
<td>Upbhokta Sanrakchhan &amp; Kalyan Samiti, Kanpur</td>
<td>US&amp;KS</td>
</tr>
<tr>
<td></td>
<td><strong>Service Providers</strong></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Bharti Airtel Ltd.</td>
<td>Bharti</td>
</tr>
<tr>
<td>9.</td>
<td>BPL Mobile Communications Ltd.</td>
<td>BPL</td>
</tr>
<tr>
<td>10.</td>
<td>Bharat Sanchar Nigam Ltd.</td>
<td>BSNL</td>
</tr>
<tr>
<td>11.</td>
<td>Mahanagar Telephone Nigam Ltd.</td>
<td>MTNL</td>
</tr>
<tr>
<td>12.</td>
<td>Reliance Communications Ltd.</td>
<td>Reliance</td>
</tr>
<tr>
<td>13.</td>
<td>Tata Teleservices Ltd.</td>
<td>Tata</td>
</tr>
<tr>
<td></td>
<td><strong>Others</strong></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Dialnet Communications Ltd.</td>
<td>DCL</td>
</tr>
<tr>
<td>15.</td>
<td>Sasken Communication Technologies</td>
<td>SCT</td>
</tr>
<tr>
<td>16.</td>
<td>Indian Institute of Management, Ahmedabad, Dr.Rekha Jain</td>
<td>IIM A</td>
</tr>
<tr>
<td>17.</td>
<td>Phonographic Performance Limited (a Music Content Licensing body on behalf of 140 Music companies in India)</td>
<td>PPL</td>
</tr>
<tr>
<td>18.</td>
<td>Google</td>
<td>Google</td>
</tr>
<tr>
<td>19.</td>
<td>Net Core</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Aneesh Reddy Boddu, B Tech, IIT Kharagpur, 2006 Currently working with ITC Ltd.</td>
<td>ITC Ltd</td>
</tr>
<tr>
<td>21.</td>
<td>Times Internet</td>
<td>Times</td>
</tr>
<tr>
<td>22.</td>
<td>World Phone</td>
<td>WP</td>
</tr>
<tr>
<td>23.</td>
<td>Webaroo Technology India (Pvt) Ltd.</td>
<td>WTI</td>
</tr>
<tr>
<td>24.</td>
<td>i2i Telesource Pvt Ltd.</td>
<td>i2i</td>
</tr>
<tr>
<td>25.</td>
<td>Director, Com First (India) Pvt. Ltd. (Mahesh Uppal)</td>
<td>DCF</td>
</tr>
<tr>
<td>26.</td>
<td>Star India Pvt Ltd.,</td>
<td>Star</td>
</tr>
<tr>
<td>27.</td>
<td>Indian Broadcasting Foundation</td>
<td>IBF</td>
</tr>
<tr>
<td>28.</td>
<td>Spanco Telesystems &amp; Solutions Ltd.</td>
<td>Spanco</td>
</tr>
</tbody>
</table>
List of stakeholders who have given their views on the Draft Recommendations

<table>
<thead>
<tr>
<th>Sl.no.</th>
<th>Stakeholder’s name</th>
<th>Abv.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Associations</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Association of Unified Telecom Service Providers of India</td>
<td>AUSPI</td>
</tr>
<tr>
<td>2.</td>
<td>Cellular Operators Association of India</td>
<td>COAI</td>
</tr>
<tr>
<td>3.</td>
<td>Indian Cellular Association</td>
<td>ICA</td>
</tr>
<tr>
<td>4.</td>
<td>Internet &amp; Mobile Association of India</td>
<td>IAMAI</td>
</tr>
<tr>
<td></td>
<td><strong>Service Providers</strong></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Reliance Communications Ltd.</td>
<td>Reliance</td>
</tr>
<tr>
<td>6.</td>
<td>Tata Teleservices Ltd.</td>
<td>Tata</td>
</tr>
<tr>
<td></td>
<td><strong>Others</strong></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Cellnext Solutions Ltd.</td>
<td>Cellnext</td>
</tr>
<tr>
<td>8.</td>
<td>Microsoft Corporation (India) Pvt. Ltd.</td>
<td>Microsoft</td>
</tr>
<tr>
<td>9.</td>
<td>Net Core</td>
<td>Netcore</td>
</tr>
<tr>
<td>10.</td>
<td>Star India Pvt Ltd.,</td>
<td>Star</td>
</tr>
<tr>
<td>11.</td>
<td>One97 Communications (P) Ltd.</td>
<td>One97</td>
</tr>
</tbody>
</table>