

Reliance Communications Ltd response to the TRAI Consultation Paper on Determination of Port Transaction Charge, Dipping Charge and Porting Charge for MNP

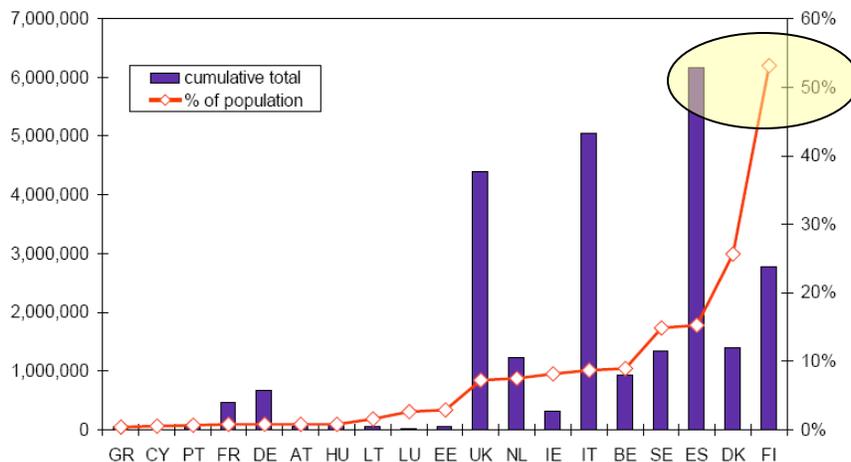
Preliminary Comments

1. With the introduction of Mobile Number Portability (MNP), mobile customers can choose to retain their existing mobile phone numbers when they switch to another mobile operator or other mobile technology platform available with the same service provider. MNP has been used world over for increasing the quality of service in addition to the flexibility of choosing the network or operator. This flexibility encourages more effective competition within the mobile industry and benefit the consumers in general.

2. Successful implementation of MNP is important to achieve the desired objectives. MNP success depends on number of issues like convenience of portability, minimum exit barriers but most important is cost of portability. It is therefore in the interest of the consumers to ensure that mobile number portability is available to the Mobile operators at reasonable and affordable rates. The MNP affordability in India will have to be examined from the perspective of entry fee for new connection which at present is less than Rs 50.

3. There is good number of examples where service providers have used high porting price to discourage users from porting. An example is Belgium, where porting charges are high enough to create a barrier for users. India being a price sensitive market, high fees for number portability would definitely be a major barrier to large scale adoption of MNP.

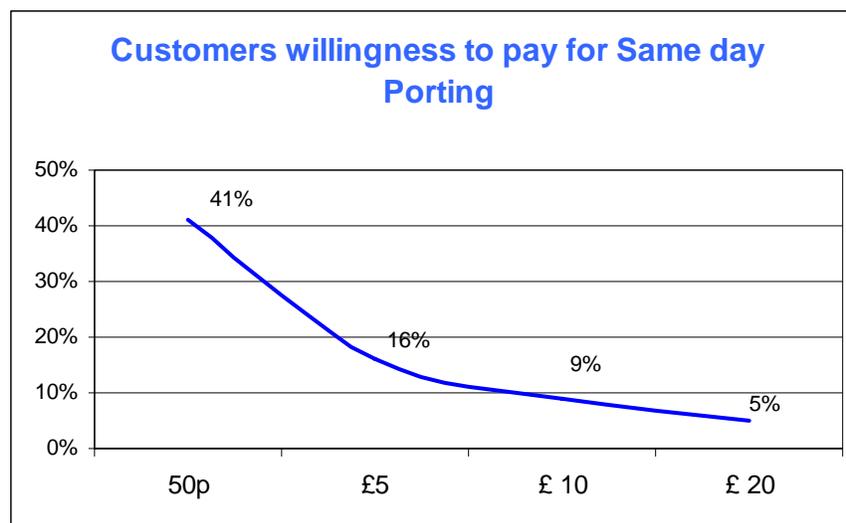
4. One of the most successful cases of MNP implementation is Finland where MNP had very strong effect on the competition in the market. The numbers of porting have far exceeded in Finland than those experienced in nearby countries. MNP does not have same impact in all markets. In Europe MNP is more accepted in Nordic countries like Finland because of simple porting process, **no exit barriers**, high customer awareness and **zero cost implication of MNP on consumers**. The following figure indicates number of MNP as percentage of the total population for European countries and in Finland th total porting are more than 50% of the population¹ which is more than any other country except Hong Kong.



¹ EC, Eleventh Implementation Report

5. In Hong Kong porting fee is only HK \$ 1.29 (Rs 8 app) which has resulted in large scale adoption of MNP. Even dipping charges is less than 2 paise per dip. Therefore, the number porting market is directly dependent on the porting fees.

6. OFCOM has recently issued a consultation paper² to review the mobile number porting time. As part of the consultation process a survey was commissioned in December 2008 in which consumers were asked how much money they would be willing to pay for porting. The results of the survey are given below and it may be noted that customers willingness to pay substantially goes down in case porting fees is higher. There is a huge market for porting at 50 pence but the same market significantly shrinks if porting charge is higher.



7. Low or nil MNP charge encourage operators to absorb MNP cost or pass on bare minimum amount of charges to the customers. Low or no MNP cost on subscribers would shatter major barrier for migration and encourage a healthy competition in the market. Having no exit barrier in India is also a main reason for very high churn rate in India and probably also a recipe for successful MNP implementation. Therefore, in India the MNP acceptance could be similar to the Finland or Hong Kong market.

8. The current entry fee for pre-paid subscribers is less than Rs 50 which also includes cost of SIM. In case MNP fee is higher than the entry fee, then MNP acceptance would be limited and perhaps would only be used by high ARPU/corporate subscribers. To encourage large scale acceptance of MNP and achieve the MNP objectives, the porting and dipping charges may be kept at bare minimum. RCOM is recommending following charges:

Porting Charge: Rs 20 per porting
Dipping Charge: 1-1.5 paise per dip

² Ofcom Consultation paper on Mobile Number Porting- Review of the Porting process dated 3.8.2009

Response to the specific issues in the consultation paper

Q1 Whether the network elements, cost details and the cost structure considered for estimating the port transaction charges are appropriate? If not, give reasons.

- a. The administrative cost for porting a number involves establishment and operating costs associated with running a database containing details of ported numbers. In addition costs of database dips in the case that this is required to determine the correct network to which a call must be routed is also involved. Since NPDB and QRDB are critical databases, the importance of running database from alternate sites in the event of a disruptive situation is also important.
- b. **The Authority has considered all network elements such as MCH, NDPB, QRDB and disaster recovery sites therefore network elements considered by the Authority are appropriate.**
- c. The MCH will require following main capital investments:
 - o Hardware: It consists of Data base servers, application servers, disk arrays, routers, switches, firewalls, network management server and other (backup tapes, racks, KVM, cables).
 - o Software License: Software license for various database, security, network management and other application software for use in India
 - o Customization/ Testing/ Project Management: Includes manpower costs and professional fees for customization, testing, project management
 - o Office Setup: Furniture, renovation and office equipment of administration office for the service
 - o Hosting and Communication Fee: Includes the setup cost of data centre hosting and communication facilities between primary and secondary data centers plus the initial hosting and communication rental fees during implementation period.
- d. **The cost estimates given by MNP operators vary significantly. While average cost per year for MNP licensee 1 is Rs 47.3 crores against Rs 74.4 crores for MNP licensee 2. Wide disparity in the average annual costs can be attributed to large variation in subscriber base assumptions. In addition, the two licensees have assumed different business models – Licensee 1 has assumed a Capex model whereas Licensee 2 has assumed Opex based model. This variation in cost structure and market assumptions is reflecting in the transaction charges of INR 200 and INR 75 suggested by licensee 1 and 2 respectively. Since MNP operators cannot have such large difference in cost, clearly the reported costs are not correct and therefore there is clear case to seek a more accurate cost estimate form MNP Operators.**

- e. We have attached Annexure I , II, III , IV and V which give details of CAPEX & depreciation, funding requirement & interest estimation, Tax estimation and P&L statement, summary of finances including IRR respectively for Zone I MNP Operators. P&L statement also provides details of OPEX for MNP Operator. Separate analysis for MNP operator in Zone II is not done as both operators are expected to have similar cost and revenue structure.
- f. The Authority may examine in details itemized costs of network elements and cost structure for admissibility. The admissibility of any expense may be examined on the basic and critical costing principles like cost causation so that only direct cost incurred for implementation of MNP are considered. Any cost or overheads which are not directly related for implementation of MNP may not be allowed. MNP charges may be devised in a manner such that greatest level of efficiency in the allocation of resources is achieved. Consideration of all costs without linking it to efficiency would encourage non-efficient expenditure by MNP operators.
- g. The Authority has not taken into account the terminal value of the project. The current methodology assumes that the MNP operator shall have to make all investments afresh and the existing investments would be redundant after expiry of 5 years. Since MNP license is for 10 years, the terminal value of the future cash flows occurring beyond a 5 year are required to be built in the costing model. In case terminal value is not included there would be over recovery of costs.
- h. In view of the above, our own estimates of costs and there being wide disparity in cost estimates given by MNP operators, it is felt that the reported costs of MNP operators is not correct and more accurate estimate of cost must be obtained from MNP Operators.

Q2 Do you agree with the factors affecting the number of porting as discussed in chapter-4? Please indicate if any additional factors are required to be taken into account. &

Q3 Whether the projection of the subscriber base and annual rate of porting as explained in the paper for the next 5 years is reasonable? If not, give your estimation of annual porting rate along with the reasons.

Projection for Number of Portings

- a. Following are main factors that affect porting:
 - (i) **Porting time:** Portability process must be easier for the mobile subscriber for successful implementation of MNP. A porting process that requires days to port a number seems very lengthy when compared with few hours to activate a new mobile user. In successful

countries like Finland and Hong Kong porting are completed within one to two days. Target maximum porting time in various countries is given in the following table³:

Country	Target maximum porting period
Austria	3 working days
Belgium	2 days
Croatia	5 days
Cyprus	14 days
Estonia	7 working days
Finland	5 working days
France	30 days
Germany	4 working days + 2 further days
Hungary	14 working days
Iceland	10 days
Italy	5 working days ¹
Malta	4 hours
Netherlands	10 working days
Norway	7 days
Portugal	5-20 working days
Slovenia	5 working days
Sweden	5 working days
Switzerland	5 working days
United Kingdom	2 working days + 1 calendar week

In view of the negative correlation between porting time and number of porting, it is reasonable to expect a higher porting in case porting is completed within reasonable time period. **The porting time being considered by the Authority in the initial phases on MNP would encourage higher porting rates in India. Once porting practices establish, the porting period should be reviewed as in UK⁴ and USA⁵ to promote consumer convenience.**

- (ii) **Porting Cost:** Charging significant fees for number porting acts as a barrier to widespread adoption of MNP. Many regulators view cost that is incurred as an inevitable consequence of fully competitive mobile market and therefore significant part of the costs are to be absorbed by service providers. In India also network up-gradation costs for MNP implementation are not allowed to be recovered directly from consumers. In case porting fee is allowed to be act as a barrier then objective of implementing MNP is defeated. In countries where porting charges for customers are less, MNP is significantly higher. For example, in Hong Kong porting fee is only HK \$ 1.29 (Rs 8 app) which has resulted in large scale adoption of MNP.

³ Source: Electronic Communications Committee (ECC) : Implementation of MNP in CEPT Countries & info for Hong ong and Australia available on OFTA and ACMA websites.

⁴ Ofcom Consultation paper on Mobile Number Porting- Review of the Porting process dated 3.8.2009

⁵ Number Portability: Action by the Commission, May 13, 2009, by Report and Order and Further Notice of Proposed Rulemaking (FCC 09-41).

In many countries, operators do not charge for MNP which is one of the main reason for large scale adoption of porting in such countries. Therefore there is strong correlation between porting charges and number of porting.

- (iii) **Customer Awareness about Number Porting:** lack of awareness about MNP is another barrier to significantly take up of MNP. However in India many new operators will be launching services in the current year. In addition existing operators have also launched services using alternate technologies. MNP shall be widely publicized by all these networks to acquire existing customers. Therefore, it is expected that in India there would be much higher awareness about MNP.
- (iv) **Exit Barriers:** One of the major barrier to porting is long term subscription contracts. Subscribers have to pay very high exit charges in case contracts are terminated early. The mobile number portability is much higher in countries like Finland where exit barriers are not allowed. In India there are no exit barriers and therefore porting rate is expected to be higher. Even upfront payments for Life time validities are unlikely to act as an exit barrier as upfront fee has come down substantially to Rs 49.
- (v) **Churn Rate:** In India, subscribers have high propensity to churn and even if a fraction of the churning subscribers opt for porting, it should translate into very high number of porting. In a recent survey⁶ conducted by Nielsen's on consumer attitudes and behaviour towards mobile operators in India, it was found that 20 % of the mobile subscribers are willing to change network if allowed to retain number. This clearly indicates that the MNP would be a stupendous success if porting is affordable.
- (vi) **Number of Access service providers in a service area:** Launch of MNP will coincide with launch of new networks in India. Therefore MNP will be extensively used to lure customers by new operators. The porting rate is expected to be much higher in urban areas where teledensity is already very high.

- b. **Therefore main factors impacting number of ports are (i) process of porting and porting time, (ii) Porting costs, (iii) customer awareness and (iv) Exit barriers , (v) Launch of services by new operators and (vi) Very high churn rate in India.**
- c. **In view of the above there are enough reasons to assume higher portings in India. The number of porting even if assumed to be 10-15% of the total churns would be a significant number. Therefore it is reasonable to expect 4-5% porting in initial years which would peak to around 7% before stabilising at around 6%. However for the purpose of estimating we are suggesting following porting figures which are very conservative:**

Year	2010	2011	2012	2013	2014
Porting rate	3.5% (Effective 2.62%)	4.5%	5.5%	6.0%	5.5%

⁶ Mobile Number Portability More Attractive To India's Postpaid Users and High Spenders: Nielsen Study (<http://www.indiaprwire.com/pressrelease/telecommunications/2009072930336.htm>)

- d. The porting rate assumption for the first year is 3.5%. However, we have assumed a phased launch of MNP i.e. Metros and Category A circles would get MNP by start of 2010 whereas B and C Category circles would have MNP after 6 months of implementation in Metros and A circles. Thus, the assumption of 3.5% porting would translate into an implied annual porting percentage of 2.62% for the entire zone (including all categories of circles).

Projection for Number of Subscribers

- e. The subscriber projections taken into consideration by the Authority in Table 10 of the consultation paper **are reasonable** and consistent with the Government targets, existing subscriber growth trends. The subscriber growth projections are good fit with the growth trends like Gompertz curve. However as an abundant caution, it is suggested that the following very **conservative** subscriber growth projection can be used in the calculations:

Year	2009	2010	2011	2012	2013	2014
Total Subscribers (Zone 1)	162	219	274	326	370	418
Total Subscribers (Zone 2)	161	219	280	333	382	435
Total	323	439	554	659	751	852

Q4 Based on the cost details, what is your estimation of per port transaction charge? Justify your estimation and supplement it with the worksheets.

- a. A projected profit and Loss statement for Zone I operator is attached as Annexure IV with assumption of porting fee of Rs 25 and Dipping Charges of 2 paise per dip. Corresponding cash flows have also been analysed and it was noted that MNP operators would get IRR of 18% and project IRR of 62%. This healthy IRR is achievable even with a very conservative estimate of subscriber base and a very liberal estimate of costs. Therefore, to promote efficiency it is recommended that porting fee may be decided at Rs 20. This porting fee will expand market and result in successful implementation of MNP. The expansion of MNP market may result in excess revenues for the MNP operator than the projections.
- b. We would request that the per port transaction charges should be excluded from the Adjusted Gross Revenue so that revenue share / licence fees does not become payable on such porting charges. These charges are passed onto the MNP service provider who is already paying revenue share/license fee on these charges.
- c. **Therefore, it is recommended that Porting fee may be decided at Rs 20.**

Q5 What should be the time period for review of per port transaction charge?

- a. The initial review should be taken after one year. Once rate of porting stabilizes then the Authority may consider using RPI-X methodology to decide porting charges.

Q6 What is your estimation about the number of voice/SMS/MMS dipping which may take place in the MNP service provider's Query Response System?

&

Q7 What should be the factors which may be considered for the estimation of the Dipping charges.

- a. All parameters mentioned in Q 3 may also be considered for estimation of the Dipping charge. In addition the number of service providers who may use the query database of the MNP Service Providers will be important.
- b. We present following estimate for number of SMSs and Calls requiring Dipping. A very **conservative** estimate of only 2.3% of subscribers can be taken mainly for subscriber base with new operators, standalone operators who are likely to use dipping for routing of calls. Decrease in dipping percentages is considered over the years as operators are likely to gain scale and hence go for their own local databases.

Year	2010	2011	2012	2013	2014
% of SMS through central database	2.30%	2.20%	2.00%	1.50%	1.50%
% of A2P through central database	2.30%	2.20%	2.00%	1.50%	1.50%
% of Calls through central database	2.30%	2.20%	2.00%	1.50%	1.50%
% of Calls through central database - missed calls	2.30%	2.20%	2.00%	1.50%	1.50%

- c. Key drivers for dipping are total number of calls, missed calls and SMSs. Considering use of missed calls as a common mode of communication, an estimate of 1:1 ratio of missed call to outgoing calls, although **conservative**, may be considered. In actual practice this ratio is much higher.
- d. Other key driver to estimate number of dips from the MOU is average holding time for each call. Again a very **conservative** estimate of 2 minutes can be considered for estimating the number of O/G calls.
- e. The number of O/G and I/C calls ratio can be used as 1:1. Using the current usage pattern, number of dips for SMSs, O/G calls and missed calls are estimated below:

		2010	2011	2012	2013	2014
SMS Volume	Mn	81,179	96,636	109,512	123,713	136,543
A2P Volume	Mn	54,119	64,424	73,008	82,475	91,029
Call Volume - Total Outgoing queries	Mn	360,831	429,533	486,766	549,889	606,918
Call Volume - Total Missed call queries	Mn	360,831	429,533	486,766	549,889	606,918

- f. **projected profit and Loss statement for Zone I operator is attached as Annexure IV with assumption of porting fee of Rs 25 and Dipping Charges of 2 paisa per dip. Corresponding cash flows have also been analysed and it was noted that MNP operators would get IRR of 18% and project IRR of 62%. This healthy IRR is achievable even with a very conservative estimate of subscriber base and a very liberal estimate of costs, conservative estimate of number of dipping. Therefore, to promote efficiency it is recommended that dipping charges may be decided at 1 paise-1.5 paise per dip.**

Q8 (a) Whether the recipient operator should be allowed to charge the porting charge from the porting subscriber?

AND

(b) If yes, should porting charge be equal to or less than or more than the per port transaction charge? Give reasons to justify your view? (c) If no, give reasons to justify your view.

- a. Service provider shall be incurring costs on new systems, processes and network upgrades and operators are expected to absorb these costs considering these to be part of licensing requirement and essential cost to promote competition.
- b. The costs of shared resources, in particular the MNP database will have to be shared by operators on the basis of number of porting. This incremental cost should be allowed to be recovered directly from those customers who are wishing to port numbers.
- c. The cost of shared resources like MCH etc should not be allowed to distort the objective of open competition, Therefore the charges to the customer may be specified as ceiling charges equivalent to charges paid by recipient operator to the MNP operator.
- d. **The market forces may be allowed to operate and the recipient operator may be permitted to charge any amount within the specified ceiling or absorb costs completely for MNP.**

Q9 Whether the porting charge, if any, paid by the subscriber to the recipient operator, should be shared with the donor operator? Give reasons to justify your view.

- a. The administrative cost of shared resources of undertaking port should be borne by recipient network. If the cost were imposed on the donor network, the operator would definitely pass on complete costs and perhaps even a premium on to its departing customer, which would then act as a barrier to MNP.
- b. It has been suggested in our response in Q8 and Q9 that ceiling MNP fee that can be charged from the customer may not be more than the charges paid by recipient operator to the MNP operator. Since charges allowed to be recovered from recipient operator are cost

based equivalent to the cost of shared resources, **there is no case sharing any porting charge with the donor operator.**

- c. Service provider shall be incurring costs on new systems, processes and network upgrades and operators are expected to absorb these costs considering these to be part of licensing requirement. Therefore donor operator cannot charge or share porting fee with the recipient operator.

CAPEX and Depreciation details for MNP Operator

Depreciation Schedule - Company Law (SLM)		2009	2010	2011	2012	2013	2014	Total
Hardware								
Capex on Hardware	INR Mn	332.88	254.55	-	-	-	-	587.43
Depreciation	INR Mn		53.93	53.93	53.93	53.93	53.93	
Annual Depreciation - Company Law	INR Mn	-	95.16	95.16	95.16	95.16	95.16	
Accumulated Depreciation - Company Law	INR Mn	-	95.16	190.33	285.49	380.66	475.82	
Gross Block	INR Mn	332.88	587.43	587.43	587.43	587.43	587.43	
Net Block	INR Mn	332.88	492.27	397.10	301.94	206.78	111.61	
Amortisation (SLM)								
		2009	2010	2011	2012	2013	2014	
Software								
Software License	INR Mn	352.46	39.16	-	-	-	-	391.62
Amortisation	INR Mn	-	70.49	70.49	70.49	70.49	70.49	
		-	7.83	7.83	7.83	7.83	7.83	
Annual Amortisation	INR Mn	-	78.32	78.32	78.32	78.32	78.32	
Accumulated Amortisation	INR Mn	-	78.32	156.65	234.97	313.30	391.62	
Total Capex for 5 years	INR Mn							979.05

Funding requirement and Estimation of Interest

		2009	2010	2011	2012	2013	2014
Investment							
Hardware Capex	INR Mn	332.88	254.55	-	-	-	-
Software License	INR Mn	352.46	39.16	-	-	-	-
Interest on term loan	INR Mn	28.56	-	-	-	-	-
Total Capex	INR Mn	713.89	293.72	-	-	-	-
Funding Arrangement							
Debt	INR Mn	476	196	-	-	-	-
Equity	INR Mn	238	98	-	-	-	-
Cumulative Loan Inflow	INR Mn	476	672	672	672	672	672
Cumulative Equity Capital	INR Mn	238	336	336	336	336	336
Term Loan Repayment Schedule							
2009	INR Mn	-	95.19	95.19	95.19	95.19	95.19
2010	INR Mn	-	-	39.16	39.16	39.16	39.16
Annual Loan Repayment	INR Mn	-	95.19	134.35	134.35	134.35	134.35
Cumulative Loan Repayment	INR Mn	-	95.19	229.53	363.88	498.23	632.58
Term Loan Outstanding	INR Mn	475.93	576.55	442.20	307.86	173.51	39.16
Net Inflow of Term Loan	INR Mn	475.93	100.62	-	-	-	-
Interest on Term Loan	INR Mn	28.56	63.15	61.13	45.00	28.88	12.76
Working Capital							
Annual requirement	INR Mn	-	62.62	31.31	35.49	37.57	41.75
Interest on short-term loan	INR Mn	-	9.39	4.70	5.32	5.64	6.26

Annexure III

Tax Estimation

		2010	2011	2012	2013	2014
Taxable Profit	0	-556	218	431	507	542
Losses Carried Forward - Opening Balance	0	0	556	338	0	0
Profit Liabile for Taxation						
Profit Liabile for Income Taxation	-	-	-	92	507	542
Profit Liabile for MAT	-	-	263	392	434	456
Tax Payable	-	-	45	67	172	184
Corporate Income Tax	-	-	-	31	172	184
Minimum Alternate Tax	-	-	45	67	74	78
Applicable Rate	NA	NA	MAT	MAT	Corporate	Corporate
MAT Credit Setoff						
MAT Credit Opening Balance		-	-	45	80	-
Effective Tax Payout	0	-	45	67	92	184

Assumptions:

D/E Ratio:	2
Terms of Debt	5 years
Interest(Long Term)	12%
Cost of Equity	14%
Working Capital	10% of OPEX

ANNEXURE IV

Profit and Loss Statement for MNP Operator(Zone I)⁷

		2010	2011	2012	2013	2014
Revenue						
Total subscribers in Zone 1 (N&W)	Mn	274	326	370	418	461
Metros + Category A (N&W)	Mn	136	162	180	201	220
Category B + Category C (N&W)	Mn	138	164	189	217	241
Porting percentage	%	2.62%	4.50%	5.50%	6.00%	5.50%
Number of ports per annum	Mn	7.18	14.68	20.33	25.05	25.35
Porting Transaction Charge	INR	25.00	25.00	25.00	25.00	25.00
Revenue from port transaction charge	INR Mn	179	367	508	626	634
SMS Volume	Mn	81,179	96,636	109,512	123,713	136,543
A2P Volume	Mn	54,119	64,424	73,008	82,475	91,029
Call Volume - Total Outgoing queries	Mn	360,831	429,533	486,766	549,889	606,918
Call Volume - Total Missed call queries	Mn	360,831	429,533	486,766	549,889	606,918
% of SMS through central database	%	2.30%	2.20%	2.00%	1.50%	1.50%
% of A2P through central database	%	2.30%	2.20%	2.00%	1.50%	1.50%
% of Calls through central database	%	2.30%	2.20%	2.00%	1.50%	1.50%
% of Calls through central database - missed calls	%	2.30%	2.20%	2.00%	1.50%	1.50%
Dipping Charge per query for SMS	INR	0.02	0.02	0.02	0.02	0.02
Dipping charges per query for A2P	INR	0.02	0.02	0.02	0.02	0.02
Dipping charges per query for Call	INR	0.02	0.02	0.02	0.02	0.02
Dipping charges per query for Call	INR	0.02	0.02	0.02	0.02	0.02
Revenue from Dipping Charges	INR Mn	394	449	462	392	432
Total Revenue	INR Mn	574	816	971	1,018	1,066

Contd....

⁷ Similar P&L is expected for Zone II MNP Operator

		2010	2011	2012	2013	2014
Operating Expenditure						
Annual Maintenance Cost	INR Mn	49	40	30	21	11
Hosting & Communication	INR Mn	289	137	162	178	203
Customisation	INR Mn	260	123	146	160	183
Admin & Other	INR Mn	29	14	16	18	20
Total Operating Expenditure	INR Mn	626	313	355	376	417
EBITDA	INR Mn	(53)	503	616	642	649
Interest	INR Mn	73	66	50	35	19
Depreciation	INR Mn	95	95	95	95	95
Amortization	INR Mn	78	78	78	78	78
EBT		(299)	263	392	434	456
Tax		-	44.76	66.62	92.36	184.31
PAT		(299)	219	325	342	272
RoE		-89%	65%	97%	102%	81%
Depreciation (IT act)	INR Mn	352.46	140.98	56.39	22.56	9.02
EBT (IT act)	INR Mn	(555.91)	217.55	430.75	506.99	542.26
Cash flow from Operations	INR Mn	(125.12)	392.10	498.85	515.52	445.29
Capex	INR Mn	293.72	-	-	-	-
Change in working capital	INR Mn	9.39	(4.70)	0.63	0.31	0.63
Free Cash Flow - Project	INR Mn	(428.23)	396.79	498.22	515.21	444.66
Free Cash Flow - Equity	INR Mn	(422.79)	262.45	363.88	380.86	310.32
Free Cash Flow - Project (Incl. Terminal Value)	INR Mn	(428.23)	396.79	498.22	515.21	6,845.04
Free Cash Flow - Equity (Incl. Terminal Value)	INR Mn	(422.79)	262.45	363.88	380.86	4,776.93

Summary of Revenue, Cash Flows, IRR

	2009	2010	2011	2012	2013	2014
	INR					
Revenue (Mn)	-	574	816	971	1,018	1,066
EBITDA	-	(53)	503	616	642	649
EBITDA % age		-9%	62%	63%	63%	61%
EBT	-	(299)	263	392	434	456
PAT	-	(299)	219	325	342	272
Free Cash Flow (Mn)	(685)	(428)	397	498	515	445
Cumulative Free Cash Flow (Mn)	(685)	(1,114)	(717)	(219)	297	741
Free Cash Flow to Equity (Mn)	(209)	(423)	262	364	381	310
NPV for 5 year period (Mn)	234					
Project IRR for 5 year period	18%					
NPV including terminal Value (Mn)	3,858					
Project IRR including terminal Value	62%					
Equity IRR for 5 year period	30%					