CRISIL Research expects MNP to have a limited impact on the Indian wireless market.

MNP will be targeted primarily at the high ARPU premium subscriber segment as the low ARPU pre-paid segment already witnesses a high churn rate.

Given that the 3G service launch coincides with MNP implementation, we believe that operators with 3G spectrum will be in a position to mitigate the impact on churn by providing access to high-end services and better network quality which are key drivers for a switch.

Operators in pure play 2G space will be under pressure to retain their high ARPU subscribers which will adversely impact the profitability margins.

Given that leading players, owning most of the 3G spectrum, account for majority of the industry revenues, we expect the impact of MNP on the industry to be temperate.
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MNP unlikely to disrupt the Indian telecom market

CRISIL Research believes MNP implementation will have a limited impact on the industry churn rate and profitability of operators. Since the timing of MNP implementation coincides with the 3G services launch, impact of MNP on incumbent operators which own most of the 3G spectrum will be diffused. Given the compulsive need for deeper network coverage for providing better QoS and increased subscriber retention costs there will be margin pressure on all operators albeit with varying intensity.

Introduction

Mobile Number Portability (MNP) allows subscribers to retain their existing mobile telephone number while moving from one service provider to another irrespective of the mobile technology or from one cellular mobile technology to another of the same service provider, in a licensed service area. This service has been introduced with the intent of creating a level-playing field for all operators by reducing the barriers to entry. The implementation in India will happen in a phased manner beginning with Haryana in November 25, 2010 and concluding countrywide implementation by January 20, 2011.

As part of the transition, all operators are required to upgrade their network infrastructure so that all voice and data calls across operators are routed through a central mainframe which is maintained and run by the MNP service provider. The Department of Telecommunications (DoT) has selected Telcordia Technologies and Syniverse Technologies to provide solutions for implementing MNP in the country. Both companies will offer solutions for 11 circles each (of the total 22 circles).

Charges relating to porting

(a) **Per Port Transaction Charge** is payable by the Recipient Operator (the operator, where the subscriber is willing to port his number) to the MNP Service Provider for processing the porting request of a mobile number – TRAI has fixed this charge at Rs 19.

(b) **Dipping Charge** is to be paid by a service provider or an International Long Distance Operator to the MNP service provider for dipping of each message. The service provider pays for the query response system database of the MNP service. Key drivers for dipping are total number of calls, missed calls and SMS. The Dipping Charge is left to mutual negotiation between the telecom service providers and the respective MNP service providers.

(c) **Porting Charge** is due by the subscriber to the recipient operator for porting of the mobile number. The amount to be paid by the subscriber shall not be more than the Per Port Transaction Charge that is Rs 19/-. Operators are free to charge any amount less than or equal to this charge.

Porting time

The porting time is fixed at 7 days for complete transfer of mobile number to the network of the new mobile operator with a maximum downtime of 2 hours. For Jammu-Kashmir, Assam and the North East, the porting time can be extended to 15 days.
**Lock-in period**

The subscriber cannot opt to switch the network operator if the mobile connection is less than 3 months old. Additionally, if a number is already ported once, the number can again be ported only after 90 days from the date of the previous porting. The minimum period is required so as to enable the service provider to recover the customer acquisition cost.

**Impact analysis**

**Churn expected to increase among high ARPU subscribers**

Post MNP, we expect the churn rate to increase in postpaid segment, which constitutes major chunk of high-ARPU subscribers and a small section of premium subscribers in prepaid segment. In a predominantly prepaid market like India, the churn rate, which we believe is principally contributed by the prepaid segment, is already high at about 60–70 per cent annually due to the price-sensitive nature of low ARPU prepaid subscribers. High-end subscribers are highly averse to change their mobile number and observe low price elasticity. As a result, we believe, this segment has witnessed minimal churn despite intense price competition in the industry. With MNP in place, the premium segment is likely to see an increase in the inclination to switch. Principal drivers for a switch will be access to high-end data services, better network quality and a significant price differential. Key parameters for wireless QoS are call success ratio, network congestion, call drop ratio, billing complaints and resolution. The gamut of data services will expand to include high-end value added services like video calls, high speed data access and mobile TV.

**Operators with 3G spectrum face limited vulnerability to MNP**

The implementation of MNP coinciding with rollout of 3G services will provide the critical differentiator to the operators with 3G spectrum, which are primarily incumbent operators. The incumbents, owing to huge subscriber base in the past, had the disadvantage of network congestion and consequent need for incremental capital expenditure to augment network capacity in order to maintain network quality. The launch of 3G services, however, will significantly ameliorate (for incumbents) this initial disadvantage due to diversion of 2G voice traffic on 3G networks. Moreover, 3G players can also place themselves uniquely by differentiating their service offerings by including high-end services, thereby making subscriber retention and acquisition a challenging task for other operators.

In the absence of any private operator with pan India 3G footprint, the roaming agreements between the 3G players will determine the gaps in different circles in terms of price competitiveness and service quality. We expect churn between the players with 3G spectrum in different circles depending on their service proposition.

**Impact to be pronounced on pure play 2G operators**

Operators offering only 2G services will face tremendous pressure to upgrade their network infrastructure in order to provide better quality. They will be compelled to incur significant incremental capital expenditure to deepen their network coverage. Additionally, players will need to market their service offerings aggressively, so as to further retain/expand their subscriber base. Given their inability to provide high end services, they would struggle to retain their high ARPU subscribers, many of whom would be keen to experience 3G services.
Financial impact of MNP across different player profiles

International experience on the MNP launch suggests that large and established service providers record an increase in their churn rate and tend to lose subscribers to relatively new players. New entrants, vying for a share of the growing market, could benefit from MNP launch, provided they are able to deliver a distinct value proposition and better QoS.

MNP in India would primarily be targeted at the high-ARPU segment for which QoS and service offerings are the critical differentiators. MNP implementation coinciding with 3G service launch would hence temperate the impact on incumbents as they are the ones holding the 3G spectrum in most circles.

In the Indian context, we expect differential impact on operating margins for players with and without 3G spectrum. The leading telecom operators that have been successful in acquiring 3G spectrum account for 98 per cent of the wireless revenues. Hence, the profitability impact on the operators capable of providing 3G services will significantly influence the overall impact on the sector.

In the subsequent section, we have estimated the impact on EBITDA margin of an operator offering both 2G and 3G services vis-à-vis an operator offering pure play 2G services.

Incremental churn expected to the tune of 50 bps to 100 bps for an operator offering 2G and 3G services

We expect that the churn among the 3G providers would depend on the service quality and price competitiveness. Our analysis leads us to conclude that the churn rate of the 3G service providers, which primarily are the incumbent operators, is likely to increase by 0.5 – 1 per cent on account of MNP implementation. As a consequence, the impact on operating margins will range from 60 - 125 basis points (bps). The dip in operating margins for these operators is relatively moderated on account of high operating leverage. In addition, on account of additional spectrum on 3G networks, the need for expanding network infrastructure will reduce significantly. A rise in marketing and advertising expenditure chiefly contribute to the dip in margins.

We also believe that an increase in churn rate would be a temporary phenomenon. As the euphoria around MNP wanes, we expect the long-term churn rate to stabilise at current levels for an operator offering 3G services. Hence, the long-term margin impact for such an operator would be insignificant. Also, by virtue of being able to offer better QoS and wider gamut of services, we expect some 3G players to witness more ‘churn-ins’ than ‘churn-outs’ post MNP implementation.

Impact on EBITDA margin of the 3G player

<table>
<thead>
<tr>
<th>Increase in monthly churn rate (%)</th>
<th>Change in EBITDA margin (bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>No change</td>
</tr>
<tr>
<td>0.5</td>
<td>-60</td>
</tr>
<tr>
<td>1.0</td>
<td>-125</td>
</tr>
<tr>
<td>1.5</td>
<td>-160</td>
</tr>
<tr>
<td>2.0</td>
<td>-200</td>
</tr>
</tbody>
</table>

Source: CRISIL Research

Pure play 2G players to witness a rise in churn of up to 2 per cent

In a similar environment, our assessment suggests that the impact on pure play 2G operators would be of a higher magnitude. In our base case analysis, we expect the churn rate of the operators to increase by 2 per cent, resulting in a decline in margin of 600-630 bps. The sharp drop in margins can be largely attributed to higher cost incurred.
to acquire and retain subscribers without commensurate revenues flowing in. Attracting premium subscribers plainly on price differential with no availability of high-end data services will remain a challenge. Hence, we believe that these operators will witness more churn outs to those offering 3G services. Moreover, in order to offer better network quality, they will be necessitated to incur incremental capital expenditure to augment capacity, which will further lower margins owing to the resultant high network operating costs.

### Impact on EBITDA margin of pure play 2G player

<table>
<thead>
<tr>
<th>Increase in monthly churn rate (%)</th>
<th>Change in EBITDA margin (bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>No change</td>
</tr>
<tr>
<td>0.5</td>
<td>-150</td>
</tr>
<tr>
<td>1.0</td>
<td>-300</td>
</tr>
<tr>
<td>1.5</td>
<td>-470</td>
</tr>
<tr>
<td>2.0</td>
<td>-630</td>
</tr>
</tbody>
</table>

Source: CRISIL Research

### Conclusion

CRISIL Research believes MNP implementation to have a limited impact on the industry churn rate and profitability of operators. Since the timing of MNP implementation coincides with the 3G services launch, impact of MNP on incumbent operators, which own most of the 3G spectrum will be diffused. Given the compulsive need for deeper network coverage for providing better QoS and increased subscriber retention costs there will be margin pressure on all operators albeit with varying intensity.
Annexure: Global experience

The international experience in MNP has been a mix of success and failures. Depending on the underlying industry factors, it has worked well only in some parts of the world. A snapshot of key parameters relevant to MNP implementation for a select few countries:

<table>
<thead>
<tr>
<th>Country</th>
<th>Porting time (days)</th>
<th>Porting charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>0.3</td>
<td>Free</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1.5</td>
<td>Free</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1</td>
<td>Free</td>
</tr>
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<td>Finland</td>
<td>5</td>
<td>Free</td>
</tr>
<tr>
<td>UK</td>
<td>7</td>
<td>Free</td>
</tr>
<tr>
<td>France</td>
<td>30</td>
<td>Free</td>
</tr>
</tbody>
</table>

MNP has materially impacted telecom sector in countries such as Australia, Hong Kong, Malaysia, Finland and South Korea while it has failed to make a mark in economies like Japan, UK and France.

- In Hong Kong, Finland and Australia, it was successful owing to speedy porting process and favourable regulatory support.
- In South Korea's dominant postpaid market, MNP led to a spike in retention costs thus intensifying competition. A similar result was seen in the Malaysian market where MNP augmented player aggression resulting in an increase in subscriber churn.
- MNP did not succeed in the UK and France on account of:
  - Long porting time
  - Inadequate regulatory and player support
  - Lack of awareness among subscribers
- In Japan, high cost of implementation and unclear price plans deterred the success of MNP. Other than application and cancellation fee, subscribers are required to purchase new handsets upon switching due to the lack of interoperability between different players. Additionally, the complexity of price plans made the difference in pricing of players indistinct and hence, reduced the incentive for subscribers to switch their service providers.

Case Study: Finland

Key industry features
- MNP services were introduced in Finland in July 2003
- High penetration of over 90 per cent at the time of MNP launch
- 96 per cent of the subscriber base was postpaid
- Low competitive intensity with three players

Impact of MNP
- Around 16 per cent of the subscribers availed the switching service in the first 3 quarters post MNP launch.
- New players surfaced who offered services at a price differential thus resulting to poaching of significant proportion of mobile subscribers from leading players.
- Churn ratio, for the immediate quarter post MNP launch, rose dramatically. The effect, however, moderated over a period of time.
- Operating margins of players took a hit for a few subsequent quarters before stabilising in the long term.

Continued...
Impact of MNP on TeliaSonera – a leading player

Source: CRISIL Research