

Savitar Research Group

Three 3G market scenarios

An Indian perspective

Three 3G market scenarios in India

Private operator 3G deployments have started in India. \$1.2B capital is being expended in the next six to nine months to rollout the services. Vendors have been chosen, SLA deals are being struck, finances lined up and so on. Operators are being wary and cautious having spent more than anticipated amount in the frenzy of recent auction. Vendors are responding with freebies and aggressive pricing strategies reconciling to razor thin margins for now.

One securities analyst asked the innocent question at the recent 3G conference in Mumbai, "To what extent is the expended CAPEX protected?" He meant in terms of number years and what it would take to upgrade to LTE and if the older 3G equipment is to be discarded.

Let's assume that current deployment is hemmed in between 2G reach-up (GPRS/EDGE services) and 4G wireless broadband and converged services (High capacity networks). Why is a converged services network a likely scenario in the next 4 to 5 years? People who sat out the 3G and BWA auctions for want of right technology or those who have acquired BWA spectrum (read Reliance Infotel and others) are looking at right cost & technology inflection point to launch converged services. The former would also look for 4G spectrum auctions. Time favors these BWA players having obtained their assets at a lower price point and also on other economic aspects of operations.

Are 3G operators just market creators for 4G? The 3G operators have a great opportunity to create and sustain a profitable base for themselves, but the seeds of success are to be sown early by right size of investment. Most operators have a mix of technologies (2G & 3G and some even with WiMAX) and have played on spectrum acquisition in places where they have a market advantage.

LTE on current 3G spectrum is sub-optimal. LTE optimally requires 20MHz of spectrum. This aspect makes it a difficult proposition to hedge financial bet on future upgrade. In contrast, BWA has 20MHz of bandwidth albeit at a slightly higher frequency band. So, is 3G just an in between technology? We can look at three distinct scenarios in the context of macro market events that will shape them. The starting point of discussion is the empirical data on mobile subscription readily available from TRAI shown in Figure 1. Three scenarios are presented in Figure 1: Scenario A Low growth, Scenario B Moderate growth and Scenario C High growth. These three were constructed from the TRAI data in the 2G growth phase where market conditions reflect 3G entry points (Example- 3 to 4 players per circle etc.). The scenarios are progressive. All considerations of scenario A have been met then scenario B and so on.

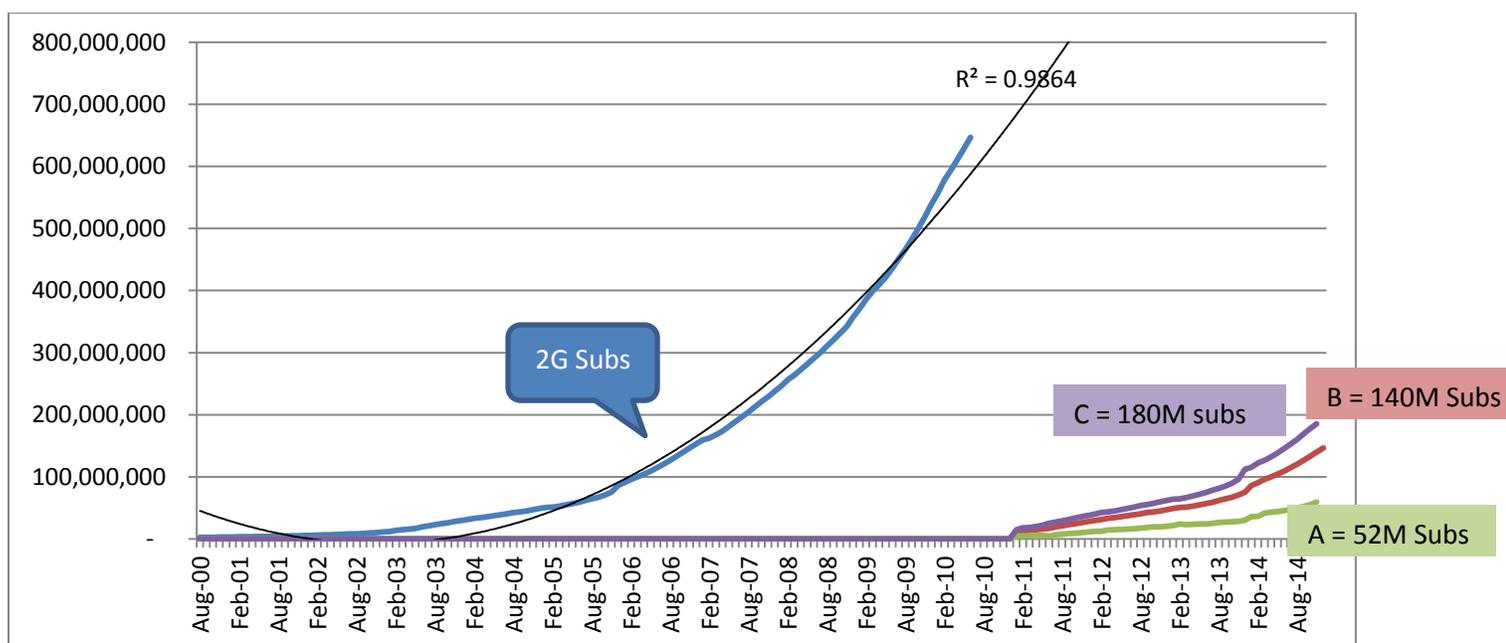


Figure 1 Mobile subscription in India (Source - TRAI)

Market Event

Bandwidth congestion

Impact

3G networks will self-limited by- built dynamic capacity (RAN congestion, QOS, data security and expensive backhails), spectrum availability, roaming agreements and termination charges.

Network operations become more complex with mismatch in data demand to capacity. SLA's with NW operations management need to be re-structured where in operators need to be active participants in capacity and service management as they are directly related to customer experience

LTE upgrades become expensive and more complex triggering another upgrade in backhaul

Consolidation and Alliances

Alliances in 3G because of fractured spectrum with each operator and 2G Consolidation- will make or break operator's bottom line. Another bloodbath this time on tariff rates on data services- will be bad all around.

Customer Experience

From consumer viewpoint- Not creating customer experience on 3G network as a killer app will suppress whole sale migration and thereby by dampen the economies of scale advantages to the 3G operator

Conclusion

This scenario A is not desirable at all for 3G operator business. Worse would be the part it would play to become the market creator for another technology that comes about in about half the time 3G's predecessor 2G technology had to create a sustainable market.

Market Event

Impact

Deployment

Operators invest prudently on architecture and service delivery platform without sacrificing customer experience, manage QOS and congestion. Device prices and features are attractive.

Consolidation and Alliances

Pan India alliances to give continuous roaming coverage. Consolidation does not impact business.

Government actions

DOT/TRAI actions will help, for example by creating bigger roaming circles

Applications and Services

Consumers take to 3G applications and services in a fashion that keeps adoption/migration close to prior 2G adoption pattern. Operators respond by offering mature services at affordable prices.

Customer Experience

Good coverage indoor and good data rate for each application in service bundle at the affordable subscription price point.

Conclusion

This scenario B is the most likely outcome. Hemmed in from both sides, 3G operators will be continuously challenged to make the financial fundamentals work amidst competition and consolidation. The 3G operators who invested enough early with a good long term business plan without compromising the mid-term goals will win. The good winning strategies may involve alliances, consolidation moves and technology mix plans.

Market Event

4G inflection point in India context is too far out 3-4 years away >2014

2G+ innovative services will continue to nibble a good chunk at the low end

Government intervention in market via regulations or Spectrum re-allocation or auctions

Impact

Further it moves out the better it is for 3G operators. Gives 3G operators opportunity to grow and develop mature services beyond voice.

It will take time for ISVs to adopt the new 4G platform and come out with services.

BWA WiMAX services can be started now may be an irritant in some markets or an advantage with strategic overlay option for traffic off-loading.

Puts price pressure and increase CPGA for 3G subs adds. 3G should not compete on voice revenue.

This factor is unpredictable. One needs to pay attention to DOT/TRAI proposals. The danger is the government's desire to incentivize broadband growth which will favor 4G because of capacity limits on 3G network.

Conclusion

This scenario C is the most conducive for sustained growth for 3G business. Even though the study was not done in terms of investment and return for the operators, it is clear that enough market penetration has happened. The economies of scale will compel 4G business to come with stronger incentives for customer adoption and migration. At the lower end, 2G competition will decline substantially since it cannot compete with the experience customers get on 3G networks at affordable price points.

However, this scenario is optimistic and assumes that many factors to swing in its favor.