

Geetanjali Wadhwa & Pradeep Chakraborty There is little telecom equipment manufacturing activity in India, and negligible OEM manufacturing in the telecom sector when compared to the growth of the telecom services industry in the country.

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BANGALORE, MUMBAI, NEW DELHI AND TAIWAN - A recent news item must almost certainly have warmed the hearts of all those associated with the Indian telecom industry. The news in question: Nokia plans to start manufacturing mobile devices in India! Undoubtedly, this is BIG news – given that, thus far, none of the leading handset vendors have been so forthcoming in their plans to produce mobile handsets locally. Obviously, the volumes are beginning to emerge. Hence, the announcement from Nokia.

Nokia plans to invest in a new manufacturing facility in India to better meet the burgeoning demand for mobile devices in the country. Pekka Ala-Pietilä, president of Nokia, said during a recent visit to the country: "India's position at the heart of a rapidly growing mobile communications region makes it an attractive option for establishing our new manufacturing facility. The factory would be an integral part of our global manufacturing network, and will help fulfill a growing demand as mobile communications become increasingly affordable and available to more people in this diverse region." Growing mobile penetration in the Asia-Pacific region is likely to be a major contributor to the global mobile subscriber base surpassing the two billion mark in 2006.

Once the final investment decision has been made, Nokia anticipates investing an estimated US\$ 100-150 million along with its key suppliers over four years. It foresees ramping up its factory with the workforce gradually reaching approximately 2,000 employees when production reaches full scale. The final investment evaluation process is on and is likely to be completed during the first quarter of 2005. Nokia currently has nine mobile device manufacturing facilities around the world.

According to published reports, Manufacturers' Association for Information Technology (MAIT) is optimistic that India will become a major manufacturing hub for mobile handsets in the next three years. As per reports, even Nortel expects its Indian business to equal its Chinese business over the next four to five years. Rajan Mehta, head of Nortel Networks India, explained, "We are riding a growth wave in India, while China is plateauing." All of this can only be very good news for the Indian telecom manufacturing industry.

According to the department of telecommunications (DoT), as per a document from Elcoteq, the revenues of the Indian cellular industry are likely to reach US\$15.61 billion by 2008, and the infrastructure market for the same will be around US\$1.88 billion per annum. The market size of the Indian telecom industry, comprising services and equipment, is likely to increase to US\$ 24.29 billion by 2006, up from US\$13.71 billion in 2001.

Elcoteq to establish manufacturing unit

The telecom-manufacturing sector in India has received negligible FDI in comparison to investments made in China, or even South East Asia in recent years. Nearly 20 percent of the global IT and hardware production is cumulatively undertaken by four countries — China, Korea, Malaysia and Taiwan, while China is generally accepted as the first choice.

Recognising the potential in India, several handset companies announced plans to establish manufacturing units in India. One of the first to announce its plans this June was Elcoteq Network Corp., the Finnish EMS company. Vinnie Mehta, executive director, MAIT, was quoted in a national daily as saying, "With European major Elcoteq deciding to set-up a manufacturing unit in the country, the prospects have certainly brightened up."

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Ashish Bakshi, Country Head -India Operations, BenQ

Domestically, there are around 20 companies and a few joint ventures in the manufacturing space, which largely focus on manufacturing switches. Domestic companies are dependent on orders from major operators like BSNL and MTNL. By all accounts, business from private operators and exports is largely insignificant. Whatever manufacturing that takes place is based on transfer of technology from overseas companies. This is a paradox as compared to markets like China, where demand from the domestic industry has fuelled growth in telecom manufacturing (China attracts considerable FDI in electronics manufacturing from around the world).

To enable India to become a key player in the hardware manufacturing space, the government will have to put into place policies, and more importantly – incentives, as well as streamlining implementation and removing investment barriers in order to achieve its targeted CAGR of 15 percent during the Tenth five-year Plan. This Plan targets US\$ 20 billion electronics hardware manufacturing by 2006-07. An investor-friendly business environment, supported by growth-oriented policies

could catapult this sector to achieving a US\$ 50 billion electronics hardware manufacturing industry by 2008.

Elcoteq's initiative in India

Elcoteq's initiative holds great promise for the telecom hardware-manufacturing sector in India. This sector is likely to generate business worth US\$ 6 billion in four to six years, and will attract companies across the supply chain.

Elcoteq is the first global communications technology focused

company offering a fully integrated range of services for infrastructure and handset OEMs in India. Their facility will be located in Bangalore and will be ready by the end of this year. When fully operational, it is expected to employ around 1,000 people. The key drivers for Elcoteq in choosing to do business in India are the

country's large domestic demand for mobile communications, as well as its sizeable growth potential. Elcoteq believes that there is significant opportunity to develop a world leading, competitive, telecom hardware manufacturing industry in India. India already has proven capabilities in software and hardware design that could be leveraged to support the telecom industry. Other factors include the availability of a highly skilled & educated workforce, and comparable costs.

Elcoteq will have the first mover advantage in the telecom sector within a rapidly globalising Indian economy. The Karnataka government, which has named telecom as its new focus area, is also expected to receive an added impetus resulting from this pioneering activity. The state further anticipates the establishment of a supply chain facility, either through local manufacturers or through international investment, to meet the requirements for raw material and components. The government of India needs to support the telecom supply chain cluster to ensure that the benefits of economies of scale and minimal logistics materialize.

The government has recognized that a comprehensive policy to encourage domestic telecom hardware manufacturing needs to be drawn up to

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ensure quantum growth in the industry. This will also establish India as a hub for international manufacturing – attracting FDI on a sustainable basis. A public-private partnership will ensure that India can fully reap the benefits from the telecom manufacturing sector in India.

Quasar - the first Indian company to develop full-feature GSM/GPRS phone

The emphasis should not be purely focused on foreign corporates setting up manufacturing bases in the country. There are some dedicated, disciplined Indian vendors that are doing the country proud. For instance, Bangalore based Quasar Innovations Pvt. Ltd. aims to become the first local design house in India to develop a feature rich GSM/GPRS phone. According to Ramakrishna

Dutt, managing director, the company is currently designing such a phone for a customer in Europe – likely to be released by the middle of 2005.

Quasar has been in the telecom business since 2000 and focuses on the wireless (both GSM and CDMA) as well as optical domains. It has partnerships with various service providers and equipment vendors. Dutt said: "Once the firm acquired domain expertise in cellular, it became more relevant to get into the software part. This was part of an organic growth in the organization that took

shape to form the design house that Quasar is today."



for a customer in Europe. While the activities started around March 2004, the mobile phone will be released in either Q1 or Q2 of 2005. We are the first local design house in India to develop a full mobile phone." If things go Quasar's way, Dutt said he might have the phone manufactured in India.

Regarding the company's launch, Dutt said: "We are coming up with a different concept. We are a virtual ODM that provides a 100 percent developed mobile phone. However, we throw in lots of benefits, and also customize everything for the customer. We can also oversee manufacturing for the customer, if required. We have a quick turnaround time." All testing and automation work will be done internally. Their Bluetooth-capable GSM/GPRS phone will be aimed





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Arshit Pathak, GM - Wireless Business Group, Philips India

at the high to mid-end segment, and will address the requirements of the European market. Quasar intends to move onto designing and developing CDMA phones as well.

Quasar further plans to design and develop, from concept to delivery, more phones as well as any consumer electronic device. It is very aggressive in the virtual ODM market. All the designing work is carried out at the firm's Bangalore center that currently has 40-45 people. The firm intends to ramp up operations faster in the coming months, and will work on further improving the time-to-market. So, has the Indian telecom manufacturing segment ever looked so buoyant?

Nokia announcing plans to manufacture phones in India, a leading EMS player setting up base in India, and a local house or virtual ODM actually developing a phone! If this does not excite telecom pundits, nothing will!

Consider this - Elcoteq's white paper says: "In the last two years, Indians have purchased over 25 million mobile phones. At an average price of US\$ 175 per handset, the total import bill works out to US\$ 3.4 billion! This does not take into account the infrastructure equipment required. With the industry growth pegged at 60-80 percent annually, if Indians continue to import handsets

the country's import bill on handsets alone could go up to US\$ 5 billion in 2005." Given this statistic, it is indeed apt that global majors are announcing their India plans for manufacturing handsets. More are likely to follow in the months ahead.

Mobile phones cannibalizing the corded phone market

The growth of mobile phones has been phenomenal in the country, but has yet to scale the heights witnessed already in China. Nevertheless, mobile phones are beginning to cannibalize the corded telephone market as well.

Arshit Pathak, general manager – Wireless Business Group, Philips India, said there are two types of situations. One, a customer has a need to be connected and prefers a mobile connection ahead of a landline. This is a typical metro, A+B class city phenomenon. The second situation could be of a customer who has a landline

phone market is cannibalizing the landline (corded) phone market. The last two years have been a period of phenomenal growth for Philips. Currently, the Indian market was adding an average of over a million GSM handsets a month and this trend will only get better."

Rajiv Khanna, CEO, Meridian Mobiles, who will be marketing "Bird" and its own brand "Fly" in India, both of which were launched recently, felt that it was wrong to say that the mobile phone market was cannibalizing the corded telephone market. He agreed, though, that the growth in the mobile phone market was much higher than the corded telephone market.

Rajendra Byala, sales and marketing director at DBTEL India, a major Taiwanese handset vendor, said that mobile phones were in fact cannibalizing the corded telephone market. He added: "Mobile phones offer the user intelligent and useful features designed to make life easier in and around the home. The vital factor for any telecom company to

The Indian market is currently witnessing an annual price erosion of 10-12 percent. This has made the market more aggressive with mobile handsets becoming cheaper by the day. Finally, customers are shifting from the standard, entry-level monochrome phones (which contribute nearly 75-80 percent of total volumes) to entry-level 4k colour phones.

connection or has booked one and was waiting for his or her turn. However, he or she moved over to a mobile connection for the added advantage of being mobile and maybe also for economical reasons.

He added: "If we look at the September 2004 connectivity data, we have approximately 8 percent teledensity with 86.8 million connections. Out of this, 43.8 million are landline and 42.9 million are mobile. If we consider the average monthly net addition of 1.5 million mobile connections and 0.2 million landlines connections, in October 2004 mobile subscriptions should have crossed landline. In that sense, yes, the mobile

survive would be the quality of the product and services to customers. Mobile phones have tremendous potential in India due to the teledensity growth potential in the country.

Today, the mobile phone market is extremely competitive, and one needs to continuously innovate faster than the competition, which DBTEL has been doing for last 25 years." As DBTEL has yet to enter the India market, it cannot comment on sales but Byala considers India to be one of the fastest growing mobile phone markets in the world.

Ashish Bakshi, country head - India Operations, BenQ, another leading



Ramakrishna Dutt, Managing Director, Quasar Innovations Pvt. Ltd.

There are lots of handsets that do not support polyphonic ringtones. We will be launching various true tones or song tones service in the Indian market. We will also launch wallpaper services of local favorites like Bollywood, cricket, etc. We are working with various operators for GPRS, MMS and other services, and customizing to their demands," he noted.

To cater to the growing demand, BenQ introduced mobile handsets with a high decibel ring tone. Its phones also provide a 500-numberphone book and a higher SMS memory. It's clamshell handsets are said to be unbreakable. BenQ has also localized polyphonic ringtones with backup batteries. According to LG, the content consumption paradigm of mobile phones was shifting away from pure voice applications to personalised non-voice applications.

Batlivala at Motorola believes that there are two kinds of personalization, on the handset itself and content personalization. Rich content would provide an opportunity for personal enhancement. Motorola is focusing on this content aspect. According to Chaudhery, the trend to change the look of handsets by changing the covers was diminishing.

Opportunities for wireless data are forthcoming

Wireless data has become an important aspect of any mobile market today. However, there have been limited opportunities as of now, owing to high entry-level barriers, according to Meridian's Khanna. The firm currently envisages a 3 percent market share in India by December 2004. "To expand this, we are focusing on building a unique concept around our brand, expanding our product portfolio coverage in terms of breadth and depth and developing a faultless distribution structure," he said. DBTEL's Byala is confident that this is a tremendous area of opportunity. Mobile phones are catching up as an important medium of wireless data communication. He foresees a multitude of transactions through mobile phones in the future.

Philips' Pathak pointed out that the everincreasing competition was forcing mobile operators to reduce call rates and ARPUs were coming down as a result. The industry needs a business model, which on one hand can maintain affordability and expand the market, while on the other hand, enhance the scope of services and offer value adds that meet the customer's ever demanding needs and continue to generate revenue. Though the present contribution of data was only 10-15 percent, things could change very fast. The adoption of 3G would further open new and endless opportunities for wireless data.

Bakshi at BenQ added that with the current convergence scenario, they foresee great opportunities in PDA smart phones being able to meet the needs of professionals always on the move. Additionally, he said: "We believe that the mobile phone is a product that needs to be available with a proper service back up. As we are still in the growing stage, we realize the importance of service and distribution and are taking the relevant steps in improving on both these fronts."

Motorola's Batlivala added, the opportunities in wireless data continues

to grow in the Indian context. "The most important thing is information that flows. This has got to have value for consumers – otherwise, it would be merely information flowing wirelessly. For example, imode, which provides services like content localization, location-based services, flight details, bank accounts, etc. India can find relevant, useful information and applications to grow. If it is not local, it is of no use."

Challenges, opportunities ahead

So what are the challenges, developments and opportunities in the Indian mobile handsets market? Arshit Pathak of Philips India said that the Indian mobile handset market currently has a penetration level of only 3.5 percent, which is much below the international average. "China has a penetration level of close to 20 percent. This in itself represents a huge opportunity. The main challenge now is to create products competitively priced to suit the Indian customer. The biggest challenge for all players is the high brand loyalty enjoyed by the market leader -Nokia. Metros and class A cities in India have seen the maximum spend, the focus will now shift to the B and C class towns where major growth is expected," he said.

DBTEL, in preparing to enter the Indian market, sees a lot of opportunity. These include low labour cost and reasonable infrastructure; robust R&D potential; the large IT/telecom talent pool; competitive landscape becoming clearer; and increasing global confidence in the Indian economy. Local production will help cut costs and allow manufacturers to offer better prices to local customers. It would also help manufacturers export to other third world countries where the mobile phone is considered a luxury. According to Byala, the low import duty that allows import from abroad poses challenge. The lack of infrastructure looms large but things are changing. Finally, inconsistent government policies with changing governments posed problems as well. However, this too seems poised to change. CP