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4 G R O L L O U T B E G I N S

Tikona to launch soon, all eyes on RIL plans

GEN NEXT IS HERE! Airtel's launch in Kolkata set the stage for a paradigm shift in India's data services

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NEW DELHI: The download count-down has begun with companies readying plans to unveil high speed fourth generation or 4G data services in India.

Tikona Digital Networks (TDN) will start rolling out its 4G network services by October.

This follows Bharti Airtel's launch of 4G services—the first of its kind in India—from Kolkata on Tuesday. The Sunil Bharti Mittal-controlled company said it would soon follow it up with a similar launches in other cities starting with Bangalore.

All eyes are also on Mukesh Ambani-controlled Reliance Infotel's broadband roll out plans.

Reliance Industries Limited subsidiary Reliance Infotel, which had acquired pan-India spectrum for broadband wireless access (BWA) for high speed data access offering speed up to 80 mbps, plans to create end-to-end solutions that address the complete digital value chain, including rich content, applications and services.

In October RIL had said "it was finalising the arrangement with leading global technology players, service providers, infrastructure providers, application developers, device manufacturers and others to help usher the 4G revolution into India."

TDN will focus on tier 2 and tier 3 cities as the primary launchpads for its 4G services' rollout.

"There is a lot of potential in tier 2 and tier 3 cities and these markets are untapped," said Prakash Bajpai, CEO of TDN.

In 2010, TDN had bought broadband spectrum in Gujarat, Himachal Pradesh and Rajasthan, and UP (East) and UP (West) covering 31% of India's population for ₹1058 crore.

Bharti Airtel has priced the 4G dongles at an initial upfront cost ₹7999 and monthly rentals at between ₹999 and ₹1999. Experts expect prices to fall when more players join the fray.

4G TECHNOLOGY DRIVES IN ON THE NEED FOR SPEED

Downloading Titanic? Tired of the over six hours needed with your old 2G wireless dongle to get the movie on your desktop? On Tuesday Bharti Airtel launched its 4G services in Kolkata. A preview of what to expect in the coming months



■ A 4G dongle (above) and a New iPad

What is 4G?

- It is the next (fourth) generation of mobile communications. Also referred to as Long Term Evolution (LTE), currently it is the most advanced technology available
- Typically, you will be able to download a song in a matter of seconds and a movie in minutes.

100 mbps

- The download speed on a 4G network — more than four times the speed of the best 3G network.

Broadband Decoded

- Broadband Wireless Access (BWA): high-speed data download service. There are two technologies in BWA: WiMAX and LTE
- WiMAX 4G (Worldwide Interoperability for Microwave Access) has the potential to replace much of existing telecom infrastructure
- In fixed wireless, it can replace the legacy copper wire telephone networks and the cable TV's cable network, while offering Internet Service Provider

- (ISP) services
- The mobile variant of WiMAX has the potential to replace cellular networks
- Intel is at the forefront of WiMAX development
- LTE or Long Term Evolution (LTE): currently the most advanced mobile data transfer technology
- Qualcomm, Ericsson and Huawei are developing LTE
- All Indian players are expected to launch 4G services in LTE.

Worldwide change

- Singapore has said it plans to accelerate the roll-out of 4G mobile networks by the middle of 2016.
- There are only about 15 to 20 circles in the world where 4G services are offered right now.
- These are mostly in the US, Sweden, Germany, China, Japan and Korea
- Many countries suffer congestion on 3G networks because of the increasing use of smart devices that consume bandwidth.

GPRS vs EDGE vs 3G vs 4G

GPRS: A 2G network service that provides basic data speeds upto 56kbps (like dial-up speed)

EDGE: A service enhancement on the 2G network that provides higher data rates

compared to GPRS (the default on 2G) up to 144 Kbps

3G: An upgrade on 2G, it provides data download rates upto 21 mbps

4G: Data downlink speeds can go up to 100 mbps.

Will it work on a 3G-enabled smartphone?

- Not yet
- As of now, the service is available on a USB drive or a dongle, which can be plugged into a laptop, a desktop or a tablet device
- 4G-enabled mobile devices are expected to hit the Indian market by the end of 2012
- An entry level 4G-enabled mobile handset is expected to cost around ₹12,000.

Hardware vendors

- ZTE, Ericsson, LG and HTC have launched 4G-enabled smart phones across the world.

What 4G enables

- **VIDEO ON DEMAND:** Downloading streaming videos or files
- Video-conferencing for homes and offices

- Tele-medicine or consultation from remote locations
- Location-based services: Live, localised information on traffic and events.

How much will it cost?

- Bharti's 4G service involve an upfront cost of ₹7,999 and the wi-fi systems ₹7,750
- The monthly rentals are priced between ₹999 and ₹1,999
- Expect prices to come down as more players launch 4G services.

What is in it for firms?

- The service provider's average revenue per user (ARPU) could go up from the current level of around ₹200 per month as the focus shifts to premium data and content services
- India is expected have more than 1 bn networked devices in 4 years from 570 mn in '10.