China may back local 3G tech first

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Even as China, by far the world's biggest telecom market that is anxiously awaiting the go-ahead from its government for third-generation telecom services, is trying out all the available 3G technology standards, industry experts believe that it will be the "home grown" technology that the government will allow first for rolling out the latest in mobile telephony.

3G licensing in China is widely expected to be given out in the first quarter of 2006, with commercial deployment starting immediately after the licenses have been awarded, in anticipation for which the Chinese telecom companies have been busy building trial networks since January.

However, "although trials for all technologies are underway," said Meiqin Fang, a telecom analyst at BDA China, a Beijing-based telecom and technology consulting firm, "the government will issue a TD-SCDMA license first in order to give the home grown standard a head start."

Not yet put into commercial use, TD-SCDMA or Time Division/Synchronous Code Division Multiple Access technology, jointly developed by Datang -- a Chinese telecom company -- and Siemens -- the German engineering multinational -- is often referred to as the country's "homegrown" 3G technology, which is competing against Europe-initiated WCDMA and U.S.-backed CDMA 2000. TD-SCDMA utilizes a different portion of the spectrum from WCDMA and CDMA 2000, and in theory at least, TD-SCDMA is considered well suited to asymmetric loads such as mobile Internet -- since mobile data

tends to require little uplink throughput but significant bandwidth for downloading information -- but it is less suitable for heavy, synchronous applications such as video telephony.

According to a few Chinese telecom industry sources, the government has good reasons to promote the technology, but for telecoms carriers it is far from convincing, because although the government claims that it has "successfully" tested the TD-SCDMA standard, it is still an untested technology in the marketplace and thus involves potential risks that carriers must carefully consider.

In June, TD-SCDMA performed poorly in technical trials with problems including inability to support 3G value-added applications and unsatisfactory operations between terminals.

Nevertheless, the government seems to be clearly in favor of TD-SCDMA. The China Daily reported that while speaking during yesterday's annual working conference of the Ministry of Information Industry, Wang Xudong, its chief, urged that China should give a head start to its home-grown technology. "After years of efforts, it's time for China to develop 3G," the MII chief said.

Hans Hammar, director of product management at Ericsson China, which has formed a strategic alliance with Chinese vendor Zhongxing Telecom Equipment (ZTE) to deliver 3G solutions for the local market, says that for China, "the single biggest driver of TD-SCDMA development" is probably the pride in developing and standardizing a "homegrown" 3G technology, which -- if successful -- may develop into an export technology.

"There is tremendous national pride in TD-SCDMA, the development of which is driven by the Chinese government and the Ministry for Information Industry," Hammar said.

But Fang of BDA China feels that the move to allow TD-SCDMA first could also be aimed at benefiting China Telecom and TD-SCDMA vendors including ZTE, TD Tech, Datang and Putian, all of which are strong backers for TD-SCDMA.

"By issuing the TD-SCDMA license first, the government would encourage vendors to make increased investments into TD-SCDMA to drive the maturity of this home grown standard," Fang said.

According to BDA, all six operators in China -- China Mobile, China Unicom, China Telecom, China Netcom, China Satcom and China Tietong -- are involved in TD-SCDMA trials, with each likely to spend about $6.2 billion over two or three years to build a national network.

Meanwhile, the upcoming 3G licensing in the home to 378 million mobile subscribers that is adding 4 million to 5 million new users every month is being watched with interest by other fast-growing telecom markets like India and Russia.

These two countries, which too are on the verge of rolling out 3G but haven't decided on the standard yet, expect that with China choosing TD-SCDMA, much of the equipment sourcing for 3G will happen from its own state-owned telecom manufacturers, possibly resulting in global telecom suppliers losing several billion dollars worth of orders.

"We believe WCDMA and EV-DO licenses would not be issued for some time after the TD-SCDMA license, putting pressure on key vendors, such as Ericsson, Motorola, Nokia and Huawei," says Fang of BDA.

And if that happens, telecom operators India and Russia, say local industry sources, will be able to extract better bargains from global telecom hardware suppliers.

Some also feel that the successful deployment of TD-SCDMA could augur well for both India and Russia, two developing countries struggling hard to fund their huge telecom investment needs.

"If China succeeds in TD-SCDMA, the sheer size of the market will turn it into a cost effective standard even attractive for exports," said Deba Ghoshal head-brand management and product planning at LG Electronics India. "And those which haven't adopted 3G yet, the Chinese standard may well turn out to be more cost viable."