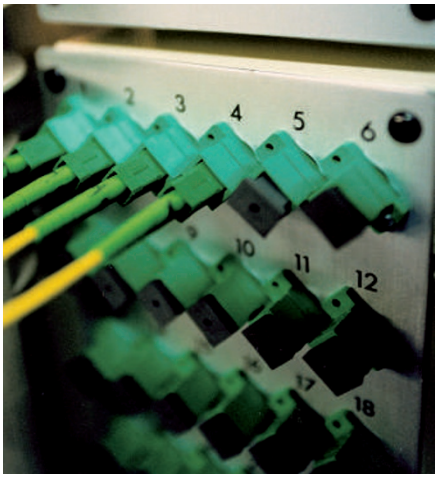
Equipment deployment



JACQUES VALAT, FRANCE TELECOM

France Telecom is moving forward with its deployment of optical networking equipment in order to supply its customers with high-speed Internet access.

Telecom companies worldwide are continuing to install fibre and transmission equipment to give consumers and businesses improved telephony and data connections. Here's a round up of some of the latest news:

France Telecom has announced it will spend €270 million ($356.4 million) to launch the first phase of a fibre-optic Internet network this year, with a goal of connecting 150,000 to 200,000 customers by the end of 2008. The company said the network could eventually reach a million customers, but that it will assess market and regulatory conditions before deciding whether to continue the expansion after 2009.

Verizon Business in the United States has signed a construction and maintenance agreement to build the first next-generation undersea optical-cable system directly linking the continental United States to China. The TransPacific Express system will have an initial capacity of 1.28 Tbit s–1, with a design capacity of 5.12 Tbit s–1. Customers will be able to access individual wavelengths at up to 10 Gbit s–1. The contract is with a consortium that includes China Telecom and China Netcom.

Eircom, Ireland's largest carrier, has signed a contract with two German companies — ADVA Optical Networking and Siemens — to create a national next-generation network. Eircom, which has 1.6 million telephone lines, plans to build an optical backbone across the country to provide speeds of 10 Gbit s^{-1} for bandwidth-intensive applications such as Internet-protocol-based television and voice-over-Internet-protocol telephony.

Tyco Telecommunications has won a contract from Telefonica de Espana to install 145 kilometres of fibre-optic cable between La Gomera and El Hierro, two of the Canary Islands. The system will initially handle 10 Gbit s^{-1} per wavelength in a dense wavelength-division multiplexing setup. The maximum design capacity will be nearly three million simultaneous basic telephone circuits.

Korea Telecom is expanding its fibre-to-the-home offerings with a plan to install between 800,000 and 1,000,000 passive-optical-network lines across the country in 2007. To this end, it has hired Californian chip-maker PMC-Sierra and DASAN Networks of South Korea, a Siemens subsidiary, to provide 1 Gbit s^{-1} Ethernet passive-optical-network equipment. Fi-Ra Photonics Co. of Gwangju, South Korea has also won a $4 million contract to supply splitters for the network.

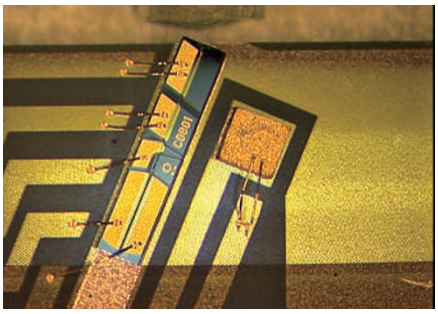
Market recovery continues

Revenue from sales of optical-networking equipment worldwide reached $3.1 billion in the third quarter of 2006 — the highest quarterly spending since the first quarter of 2002, according to the latest market report from analyst Ovum-RHK. The figures show a continuing recovery in the telecom market with revenue up 5% over the second quarter and up 13% compared with the same period in 2005. Ovum-RHK says that spending in the North American market once again outpaced the other regional markets, topping $1 billion for the third quarter in a row. The top three vendors ranked in terms of market percentage for the period were Alcatel (16.8%), Nortel (10.1%) and Huawei (9.5%). NEC reported the most growth for the third quarter of 2006, with revenue up 55% sequentially and 34% year on year. "Global spending continues to grow as bandwidth required for broadband wireline and mobile applications puts pressure on operators to expand existing networks and build new ones," commented Dana Cooperson from Ovum RHK. "We continue to see growth in builds by non-traditional customers — including mobile operators, multiple system operators, businesses, research and education institutes, governments and utilities, as well as network expansions by the more traditional telcos."

Ethernet to speed up ten times

The next leap in speed for Ethernet should be 100 Gbit s^{-1}, according to the Institute of Electrical and Electronic Engineers (IEEE). The IEEE 802.3 Higher Speed Study Group voted in December to support standards for the next generation of Ethernet devices that would support an increase from today's standard of 10 Gigabit Ethernet (10 Gbit s^{-1}). The study group was formed last July with the support of the Ethernet Alliance, an industry group promoting the expansion of Ethernet. With 10 Gigabit Ethernet already being deployed in Internet exchanges to support high-bandwidth applications such as Internet-protocol television, the group felt it was important to look towards the next step. Lucinda Borovick, director of datacenter networks at the International Data Corporation, said the increase in speed would pay for the investments required to make the transition. Brad Booth, president of the Alliance, called the decision "a major milestone".

Agreement targets tunable laser supply



SYNTUNE AB

A tunable laser based on InP developed by Syntune of Sweden. The firm is now working with CyOptics of California to manufacture the lasers in volume.

Two companies are teaming up to provide the telecom market with a range of lasers that are tunable across the 1.5-μm telecoms window. Syntune of Kista, Sweden, which makes single-chip tunable lasers and transmitters that cover the whole C- or L-band (1,525–1,565 nm and 1,570–1,610 nm respectively), plans to cooperate with CyOptics of Pasadena, United States, which develops indium phosphide chips and components. They say their alliance will accelerate the introduction of full-band tunable laser products into the market. The agreement teams Syntune's tunable lasers with CyOptics's automated manufacturing platform. "Syntune's patented widely tunable technology is an excellent addition to our already broad portfolio of active optical component products," said Ed Coringrato, CEO of CyOptics. Industry demand for tunable lasers doubled from 2005 to 2006, according to market analyst Ovum-RHK, and is expected to expand at a compound annual growth rate of 64% through 2010.