

Information Society Trends Issue number: 61 - (13.11.96 - 30.11.96)

EUROPE

Trends: Further progress towards telecoms liberalisation was achieved in France and the UK. At market level, the main news was the further rapprochement between Bertelsmann and Mitsui.

LEGISLATION AND POLICIES

The European Commission has adopted a revised Action Plan to give fresh impetus to the European Union's information society strategy. Building upon the progress achieved since the adoption of the original Action Plan in July 1994, the so-called "Rolling Action Plan," which aims to serve as a user-friendly guidance tool.

(The full text is available: on-line).

The British government said it would license all 46 companies that have bid for licenses to develop networks to compete with the leading UK operators BT and Mercury Communications in the overseas telecoms market. So far, competitors were entitled to international lease lines from BT and Mercury but not to own their own infrastructure.

The French government has awarded its first alternative infrastructure license to the Anglo-French railway company Eurotunnel and has said it would soon license other operators, including the national railway company SNCF, the Parisian urban transport company RATP, as well as the US telecoms groups MFS-WorldCom and Colt.

The Portuguese government has announced that it would sell-off a further stake of the national telecoms operator Portugal Telecom to a strategic partner in October 1997. The state would thus give up its 51% majority stake and reduce it to 20 to 25%.

The Romanian government has awarded GSM licenses to two consortia led by the French and US telecoms operator France Télécom and AirTouch.

MARKET AND COMPANIES

The German media giant Bertelsmann and the Japanese trading house Mitsui said they are investigating the possibility to form a broad alliance in the information and entertainment sector that would cover their activities in Europe, Asia and North

America.

As a first step, Mitsui has agreed to take a 35% stake worth 1.5 million Ecu in T1 New Media, a Bertelsmann subsidiary specialising in CD-ROMs. One year ago, T1 and Mitsui sealed an accord for the reciprocal licensing and marketing of their multimedia products.

Further steps could cover cooperation in mail-order book clubs, TV shopping and on-line services, where the two groups would benefit from each other's experience. They would also enjoy access to each other's markets.

The German public TV channel ARD has unveiled plans to launch a digital pay-TV service, Prima TV, from mid-1997 with the backing of the Swiss Broadcasting Association. It would offer 24 channels specialised in movies, home-shopping, news and children programming in competition with the German digital TV leader Kirch.

NORTH AMERICA

Trends: US industry again demonstrated its innovative capacity with the launch by Microsoft co-founder Paul Allen of three new start ups specialised in multimedia.

MULTIMEDIA SERVICES AND PRODUCTS

Interval Research, a research venture funded by Microsoft co-founder Paul Allen has spun off three start up companies specialised in new interactive multimedia products.

The first, Purple Moon, will design interactive software specifically targeted at girls aged seven to 12. The second, Ogoogo Studios, will create software allowing kids to appear in real-time via a camera in virtual landscapes visualised on-screen. The third, Carnelian, will develop technology allowing publishers to deliver material on-line, and will cover on-line payment systems and protection against copyright piracy.

The Dutch and Japanese electronics giants Philips and Sony have jointly launched in the USA WebTV, a device priced \$325 that connects to the TV set and allows to surf the World Wide Web and have access to an e-mail service.

TCI, the leading US cable TV operator, said it has withdrawn its \$125 million investment made in 1994 for a 20% stake in the commercial on-line service Microsoft Network (MSN). In the meantime, TCI has heavily invested in At Home Corp., a high-speed Internet access service jointly owned with other US cable operators.

MARKET AND COMPANIES

PrimeCo Personal Communications, a joint venture between the US regional telecoms operators AirTouch, Bell Atlantic, Nynex and US West, has launched in 16 US cities corresponding to 32 million potential subscribers a wireless service based on the personal communications services (PCS) licenses won in an FCC auction in March 1995.

The PCS network will eventually be extended to another 26 million potential customers and will be connected to the cellular networks of the four partners in the course of 1997.

The move comes in response to the launch in October 1996 by the US telecoms giant AT&T of its own wireless service, Digital PCS, based on the upgrade of the company's existing cellular network and the PCS licenses also won in March 1995. Digital PCS is already available to 70 million potential customers and would be extended to 212 million.

The US computer giant IBM has agreed to spend \$100 million on the purchase of Edmark Corp., a leading US supplier of educational software for children. The move would turn IBM into a key player in this fast-growing market.

TECHNOLOGY

After the WAN (Wide Area Network) and the LAN (Local Area Network), here comes the body-based PAN (Personal Area Network) linking various electronic devices carried by a person thanks to a technology developed by the US computer giant IBM.

The technology would allow to transfer data from a pocket-sized computer by using the human body's ability to transmit electricity. It would for instance allow to transfer electronic business card information between two persons equipped with the technology though a simple handshake or to transmit information from a pager to a cellular phone.

SOCIAL, SOCIETAL AND CULTURAL

US President Bill Clinton has launched the Internet II initiative which aims to offer the US research and educational communities advanced Internet connectivity.

The project would aim at developing a new generation of Internet transmission protocols and more advanced backbone networks capable of supporting high-speed communications services, including real-time transmission of sound and video.

Based on a trilateral partnership between 34 universities, US high-tech companies, including America OnLine, AT&T, Comcast, Oracle and Time Warner, and relevant federal agencies, Internet II would receive \$100 million from the federal

budget.

Internet II is also linked to the recently launched education rate or "E-rate" guaranteeing Internet connection rates 20% to 90% lower for US school and libraries and funded via a US Universal Service Fund (USF).

ASIA AND PACIFIC

Trends: NTT is strengthening its grip on Japanese domestic infrastructures with new broadband investment plans and the announced launch of its dedicated Internet network. These move seem to come in anticipation of intensified competition unleashed by the liberalisation of leased lines. Competition is also heating up for Japan's overseas operators under increasing pressure of call-back and Internet-based telephone services. The same applies to the chip market with the reinforcing of Siemens' and Motorola's business activities. On the technology front, Japanese electronics companies are confirming their high level of activity in the development of secure electronic commerce.

INFRASTRUCTURE

The Japanese telecoms giant Nippon Telegraph & Telephone (NTT) has said it would invest 550 million Ecu a year to develop a fibre-optic network connecting major Japanese cities by the year 2005 and the entire country by the year 2010, thereby providing Japanese households with access to advanced interactive multimedia services.

Separately, NTT said it would launch in December 1996 the Open Computer Network (ONC), a dedicated Internet access network that would parallel its public network. The ONC would offer low price connectivity for corporate and residential users.

MULTIMEDIA SERVICES AND PRODUCTS

The Japanese software developer Bantan International has unveiled Win TV, a hybrid PC and Internet surfing device priced 350 Ecu that connects to the TV set. Win TV targets the children market with a user friendly interface. Based on a 32 bit Intel chip, it also allows to run Windows 95 applications and has an in-built CD-ROM drive.

LEGISLATION AND POLICIES

In a move to further open up the telecoms market, the Japanese government has liberalised in October 1996, i.e. three months ahead of schedule, domestic leased telecoms lines, thereby allowing service providers to connect them at both ends to public networks.

But the full impact of the measure is pending the adoption of a new interconnection regime. Indeed, as the domestic telecoms operator Nippon Telegraph & Telephone (NTT) will retain its monopoly over the local loop, favourable interconnection conditions will play a key role in fostering fresh competition in the telecoms market.

MARKET AND COMPANIES

Competitive pressure on Japanese incumbent overseas carriers Kokusai Denshin Denwa (KDD), International Digital Communications (IDC) and International Telecom Japan (ITJ), which offer particularly high-priced services, is mounting with the rapid expansion of call-back services and the launch of Internet-based telephony.

In the call-back market, the US telecoms giant AT&T has launched a new corporate service, AT&T World Access, undercutting current charges by over 50%. Other operators could follow suit, in particular AT&T's US competitor MCI.

Separately, two telecoms groups, Canada's AlphaNet Telecom and Japan's Chyoda Sangyo, have unveiled plans to launch cut-price overseas services based on the Internet. AlphaNet's Mondial would be launched in early 1997 between Japan, Canada, the USA, the UK, Hong Kong, Australia and New Zealand. As for Chyoda Sangyo's Telematrix, it would be launched in mid-1997 between Tokyo, Osaka, New York and Los Angeles.

Meanwhile, three US firms, Interlinear Technology, Vocaltec and Dialogic, said they are getting set to market corporate and residential Internet phone systems in Japan.

The Japanese electronics group Mitsubishi has unveiled plans to launch a long-distance phone service in Japan in May 1997 that would be 25% cheaper than the services offered by the incumbent operator Nippon Telegraph & Telephone (NTT).

The Japanese electronics groups Mitsubishi and Sanyo have unveiled rival plans to offer long-distance telephone service in Japan in 1997 with prices 25 to 30% cheaper than those of the incumbent operator Nippon Telegraph & Telephone (NTT).

They would be amongst the first Japanese companies to take advantage of the government's recent decision to allow leased lines to be connected at both ends to public networks. Earlier this year, the electronics giant Matsushita and the car manufacturer Toyota also announced the launch in 1997 of telecoms services based on their leased lines.

The Japanese communications market has grown by over 17% in 1995 according to a survey published by the Japanese Ministry of Posts and Telecoms (MPT). This compares to a comparably low industrial growth rate of 3.2%. The figures reflect a 20% growth rate for telecoms (mainly mobile telephony) and 11.5% for the cable TV industry.

The German electronics giant Siemens has raised to 80% its stake in Fuji Electronics Component, a joint venture set up

in July 1996 with its Japanese counterpart Fuji Electronics. The venture, which has been renamed Siemens Components, will import microprocessors manufactured in Germany from 1997 onwards.

Meanwhile, the US telecoms and chip manufacturer Motorola has bought from the Japanese electronics group Toshiba its 50% stake in their joint venture, Nippon Motorola Microelectronics (Nimtec) to gain further access to Japan's market.

TECHNOLOGY

The Japanese electronics groups Hitachi and Fujitsu have agreed with the backing of the Japanese Ministry of International Trade and Industry (MITI) to jointly develop an encryption technology, the Key Encryption System (KES), for on-line payment.

Under the system, to become operational in 1998, decryption keys would be left with a Key Deposit Centre acting as a trusted third party.

Ten Japanese credit card companies have agreed to set up a study group to establish a standard for secure on-line transactions based on the Secure Electronic Commerce Environment (SECE), a protocol developed by Japan's Hitachi, Fujitsu and NEC.

The SECE technological platform, to be operational by September 1997, would cater for the specific needs of the Japanese market with, amongst other things, a Japanese-language interface. Given the scope of the alliance, it could become a de facto standard.

Even though SECE would be compatible with the Secure Electronic Transactions (SET), a system for on-line payments developed by the US credit card giants Visa and MasterCard with the support of America's GTE, IBM, Microsoft or Netscape, a rivalry between the two systems cannot be ruled out. SET has already been endorsed by NTT Data Communications, which operates CAFIS, Japan's largest credit card network.

The Japanese and Chinese governments have agreed to collaborate on the development of the next generation of mobile communications capable of transmitting video and to be operational by 2000. They aim at setting an international standard.

The joint effort will be based on exchange of personnel and technologies. A study group has started working on the issue and would publish a report in April 1997.

SOCIAL, SOCIETAL AND CULTURAL

The Japanese Ministry of International Trade and Industry (MITI) has launched a New Digital Island project for

Okinawa, Japan's most southern island, to promote its economic and industrial development, which is lagging behind the rest of the country.

The initiative aims at promoting the use of the Internet and new on-line technologies amongst local companies and government with the aim of turning Okinawa into an attractive business centre for high-tech companies.

Subscribers to proprietary on-line services in Japan have increased by 2 million over one year, reaching 5.7 million in the second half of 1996, with women accounting for only 13% of the total, according to a study of Japan's New Media Development Association.

DG XIII - The content of "Information Society Trends" does not necessarily reflect the European Commission's views.

E-mail subscription: Majordomo@www.ispo.cec.be; enter SUBSCRIBE ISTRENDS + your e-mail address