Information Society Trends

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**EDITORIAL** 

WorldCom surprise bid for MCI rocks BT

On 1 October 1997, WorldCom, the fourth-largest US long-distance operator, launched a surprise bid to purchase 80% of the second-largest US long-distance operator MCI for \$34.5 billion, corresponding to \$30 billion in stocks and \$4.5 billion in debt.

The same day, WorldCom also announced the purchase for \$2.4 billion of Brooks Fibre Properties, a US operator of fibre optic networks in 33 US cities.

If successful, the bid would endanger the global development strategy of the UK operator BT, which already owns 20% of MCI and was about to complete a full merger. WorldCom jumped into the loophole created by BT a few weeks ago, when it won a 25% reduction in its MCI purchase price, by offering \$10 billion more than BT.

The move reflect the growing shift of the telecoms industry towards the Internet, as it would turn WorldCom into the largest Internet company worldwide. This would include the leading US Internet access provider, UUNet Technologies, and about 60% of the US Internet traffic based on MCI's large Internet backbone and the network divisions of Compuserve and America OnLine, which WorlCom recently agreed to purchase.

WorlCom would also control 25% of the \$80 billion worth US long distance market, compared to 50% for the market leader AT&T, and strengthen its grip on the \$100 billion worth local loop market, where it would have connections in over 100 US cities.

The fact that the WorldCom bid focuses on US synergy questions the underlying rationale for global telecoms ventures, especially as the BT-MCI venture, Concert, was considered more successful than rival Global One and WorldPartners.

This, however, doesn't prevent WorldCom from expending abroad, especially in Europe, where it owns fibre optic networks in cities such as Amsterdam, Brussels, Frankfurt, London or Paris.

A key question however is how WorldCom, which only had a \$5.6 billion turnover in 1996 compared to \$18.5 billion for MCI,

intends to finance the deal.

A first answer is that WorldCom expects the merger to bring saving of \$2.9 billion in the first year, while BT expects to achieve the same result in five years. This would be achieved though savings in capital spendings, in particular by scrapping MCI's heavy investment in the local loop, lower local access charges, and lower overheads.

But WorldCom's major asset is the strong backing of US investors. Indeed, WorldCom currently has a market value of \$33 billion which is 70% higher than that of MCI with 19.4 billion. Three years ago, WorldCom was only a second-rank company. But in the meantime, its stock price jumped by 300% compared to only 60% for MCI.

This highlights the key role of capital markets in the development of the US high-tech industry. In the case of WorldCom, it gave it the capacity to launch five big mergers worth almost \$20 billion in the last three years, to bid for a giant like MCI, to rock another giant like BT, and to challenge incumbent European operators at home.

#### **EUROPE**

Trends: The main European news are the launch by the Commission of a policy initiative for digital signatures and encryption, the Commission's approval of Spain's amended digital TV law, the launch of the final stage of Telecom Italia's privatisation and the setting up of a private-led Foundation for educational multimedia. The most amazing piece of information is the joint United Utilities-Nortel technological breakthrough which allows for high-speed Internet access over electricity power lines.

### MULTIMEDIA SERVICES AND PRODUCTS

The French telecoms equipment manufacturer Alcatel has unveiled the Internet Screen Phone, a hybrid telephone set and Internet terminal, which would be commercialised worldwide in 1998 and cost between 300 and 450 Ecu.

### LEGISLATION AND POLICIES

The European Commission has adopted a Communication setting out a common European framework for ensuring trust and security in electronic communications.

It aims at ensuring the Europe-wide availability of digital signatures and encryption products and services, which is key to the

development of electronic commerce.

(The document is available on-line: http://www.ispo.cec.be/eif/policy/).

The European Commission has decided to drop its formal infringement procedures against the Spanish government regarding its legislation on pay-TV and digital TV services following the modification that was introduced on 12 September 1997.

The Commission said that it is now satisfied that the law provides for equal treatment of all digital TV operators. The discrimination between the Multicrypt decoding box of DTS and Canal Satellite's Simulcrypt, in particular, has been dropped. However, the Commission warned that it will closely monitor the implementation of the law.

A core group of 14 investors has taken a 9% stake in the national Italian telecoms operators Telecom Italia in the first stage of the company's flotation.

This includes the US telecoms giant AT&T and the European telecoms joint venture Unisource, with 1.2% each, to seal their recently formed alliance with Telecom Italia. In exchange, Telecom Italia is expected to take a similar stake in AT&T and a 30% stake in the pan-European venture AT&T-Unisource Communications Services.

The remaining 36% of Telecom Italia which are still owned by the Italian government will be sold off from October 20 to 24 for an expected 8.3 billion Ecu.

## MARKET AND COMPANIES

The Spanish incumbent telecoms operator Telefonica and the UK media group Pearson have unveiled plans to form a media partnership which would include Telefonica taking a 20% stake in Pearson's Spanish subsidiary, Recoletos, and Pearson taking a 5% stake via Recoletos in Antena 3, a TV channel controlled by Telefonica.

The German telecoms operator Deutsche Telekom, the public channel ZDF, and the pay-TV channels Premiere and DF1 said they have agreed on the technical specifications of a digital TV platform available over Deutsche Telekom's cable network.

Britain's Psion, a leading manufacturer of hand-held computers, has agreed to license its EPOC32 operating system to the Dutch electronics giant Philips, which would rely on it to develop a range of advanced hand-held data and wireless communication devices.

Psion said it has other major licensees that have requested not to be identified. The move could give a boost to EPOC32 becoming an industry standard.

Microsoft, the world's leader in PC software, has said it will invest 39 million Ecu and take an 8% share in Belgium's Lernout & Hauspie Speech Products (L&H), a leading producer of speech-recognition devices and technology.

#### **TECHNOLOGY**

The English water and energy utility United Utilities and the Canadian telecoms group Northern Telecom (Nortel) have said they have jointly developed a technology that allows for high-speed Internet access over existing electric power lines.

The technology, which would allow to transmit one megabit per second, only works for data transmitted in packets, which is typical of the Internet, but not with a continued stream of data, such as for instance a telephone call. The system would only work in Europe but Nortel said it intends to adapt it to the US electricity grid within the next year.

## SOCIAL, SOCIETAL AND CULTURAL

A group of leading European and US information and communications firms has agreed to set up, probably in early 1998, a Private Foundation for Educational Multimedia to promote multimedia and on-line technologies in Europe's classrooms.

The Foundation would support public-private partnerships and the dissemination of best practices, and would also act as a think tank. The initiative received support of the European Commission and of European Union education ministers.

Participating companies are all members of the European Education Partnership (EEP), a private-led initiative launched earlier this year, including Apple, BT, Cisco, Deutsche Telekom, France Télécom, ICL, Microsoft, Oracle and Sun Microsystems.

# NORTH AMERICA

Trends: Competition continues to build up in the Internet market, in particular with the launch of Netscape's new SuiteSpot Hosting Edition and CommerceXpert software, Worldgate's TV On-Line, Cnet's Snap! Online and Microsoft's Explorer 4. Meanwhile, major players in the communications industry are trying to convince Congress to drop legislation allowing US law enforcement agencies to crack encryption systems. As for NTT, it makes its first significant move in the US market by taking a stake in Teligent. Finally, Intel and IBM have achieved important breakthroughs in chip technology.

### MULTIMEDIA SERVICES AND PRODUCTS

Netscape Communications, the world's leader in Internet browsers, has unveiled SuiteSpot Hosting Edition, a server software that would enable telecoms operators and large corporations to host Internet, Intranet and Extranet services for individuals and SMEs. The offer would be complemented by a new family of electronic commerce applications, CommerceXpert, that builds upon Netscape's SuiteSpot servers.

Netscape said that European telecoms operators are one of its primary target group for the new software, as they are eager to boost their still limited offer of Internet services.

Microsoft, the world leader in PC software, has released the new version of its Internet Explorer 4 browser, which it hopes will supersede rival Nestcape's Navigator as the world's preferred World Wide Web browser.

Worldgate Communications, a US high-tech start-up, has unveiled TV On-Line (TVOL), a technology that would enable cable TV operators to offer cut-price high-speed Internet access over the TV set via a set-top converter box.

The set-top box and a wireless keyboard would be rented for a monthly fee of \$5. The set-top box wouldn't have computing power, which would be handled by a server.

Worldgate could become a serious contender for WebTV, a rival webcasting technology supported by the US software giant Microsoft, which requires users to buy a \$200 set-top box and pay a \$20 monthly fee, and which transmission speed is lower.

Worldgate is backed by the North-American Channel HyperLinking Organisation (NACHO), which groups leading US cable TV, advertising and high-tech companies.

A group of leading US telecoms groups, including AT&T, MCI, Sprint, Bell South and Bell Atlantic, and independent Internet access providers, have agreed to support Snap! Online, a Web navigation guide launched by the US high-tech start-up Cnet.

Snap! organises Web content in "channels" covering topics ranging from news to sports or travels in a similar way than America OnLine (AOL) or the Microsoft Network, which it aims to rival. It also provides a CD-ROM that acts as a Web guide for Web neophytes. But Snap!, which is free of charge and financed through ads, doesn't provide content of it own, which makes it look more like a Web search engine.

# LEGISLATION AND POLICIES

A coalition of US civil liberties activities and dozens of US high-tech companies, including the Baby Bells Ameritech, Bell Atlantic, Bell South, SBC and US West as well as the computer giant IBM, have signed a letter urging US Congress to reject a draft bill that would require all encryption products to include a "back door" allowing US law enforcement agencies to crack any encrypted message covertly.

The legislation would also require on-line service providers and telecoms operators to ensure that any coded message they carry can be cracked by government agencies. But the coalition claims that such obligations would not be practicable, would constitute a breach of the users' right to privacy, and would hinder the industry's development.

### MARKET AND COMPANIES

The Japanese telecoms giant Nippon Telegraph and Telephone (NTT) has agreed to spend \$100 million for a 12.5% stake in Teligent, a new US fixed wireless operator which is planning to launch SME services in 74 US markets in April 1998.

The move would be NTT's first significant step into the US domestic market. The investment in Teligent also reflects the rapid emergence, following the 1996 liberalisation of the US market, of US telecoms start-ups, the so-called "competitive local exchange carriers" (CLECs), which build their own networks to bypass Baby Bells

## TECHNOLOGY

Intel, the world's leading semiconductor manufacturer, said it has achieved a technology breakthrough allowing it to quadruple the storage capacity of flash memory chips. Intel's new product, the 64-megabit StrataFlash, is expected to boost the performance of the next generation of portable appliances, which heavily rely on memory chips, for instance laptop computers, personal communicators or digital cameras.

The StrataFlash chip could also enable Intel to grab a larger slice of the memory chip market, in which it only has a 33% share compared to 85% of the PC chip market.

The US computer giant IBM has unveiled a new semiconductor manufacturing process, CMOS 7S, which would allow it to produce chips with a capacity 40% superior to the fastest existing chip for a price 20% to 30% lower.

The new technology enables to use copper in chips, a material which is cheaper and has a greater conductivity than silicon, but which so far could not be bundled with silicon. IBM said it managed to isolate the copper from the silicon. Chips based on the new manufacturing design would be introduced from next year in IBM's high-end PCs.

The US network equipment manufacturer 3Com has unveiled a powerful new switch, Corebuilder 3500, that would be four times faster than Catalyst 5500, the fastest switch of rival Cisco Systems, the market leader, at a comparable price.

SOCIAL, SOCIETAL AND CULTURAL

About 14% of US children aged eight to 17, or 9.8 million in all, now use the Internet and log on three times a week in average for an average time of 4.3 hours, according to the US market research firm Emerging Technologies Research Group.

#### ASIA AND PACIFIC

Trends: The main news are India's liberalisation of the Internet access market, which is expected to boost subscription rates, and an Asian initiative to develop third-generation mobile standards to rival US and European-led ones.

# INFRASTRUCTURE

Following the Tokyo Metropolitan Government's decision to allow telecoms operators to use its sewer pipelines to install telecoms networks, the Japanese telecoms operator KDD said it would make use of the opportunity to develop a local fibre optic network in Tokyo at a price 10% lower than if it would have to dig trenches.

### MULTIMEDIA SERVICES AND PRODUCTS

A group of Japanese companies have unveiled plans to set up a joint venture in 1998 to introduce digital satellite broadcasting (DSB) services via portable receivers, mainly for car use, by the year 2000. The main backers of the venture, which would offer about 40 digital radio and TV channels, are Toshiba, Kenwood, Mitsui, Japan Satellite Systems Inc. (JSAT), Tokyo FM Broadcasting and Nippon Broadcasting System.

### LEGISLATION AND POLICIES

The Indian government has decided to break the monopoly of the state-owned international carrier Videsh Sanchar Nigam (VSNL) in the Internet access market.

The liberalisation move should fuel Internet subscription rates in India from 40,000 to about 200,000 almost immediately and around 1.5 million by the year 2000, according to the National Association of Software and Service Companies (Nasscom), which added that 150 foreign and domestic firms are interested in offering Internet access services.

### MARKET AND COMPANIES

Japan's overseas telecoms operator Kokusai Denshin Denwa (KDD) said it intends to strengthen its ties with the regional operator Tokyo Telecoms Network Co. (TTNet) by setting up a joint venture specialised in Internet services and another joint venture selling domestic and overseas phone services under a single brand name.

TTNet is one of the company that has agreed to interconnect its network to the KDD-led Japan Information Highway (JIH), a 700 million Ecu worth submarine optical fibre network to be develop around the Japanese archipelago by mid-1999. The other partners are nine Japanese electricity utilities and the regional operators DDI and Teleway.

### **TECHNOLOGY**

The Japanese Ministry of Posts and Telecoms (MPT) said that an informal meeting of the Asian Pacific Telecoms

Community (APT), which is comprised of 29 member countries and big corporations such as NTT and KDD, had agreed in

August to work towards common standards for the next generation of mobile phones. Work would start in 1998 with the aim of setting Asian standards as global standards recognised by the International Telecoms Union (ITU) instead of US or European-led standards.

### SOCIAL, SOCIETAL AND CULTURAL

There should 8 million Japanese Internauts at the end of 1997 and 33 million in 2001 compared to 4.6 million in 1996, according to the US market research firm Dataquest.

The contents of "IS Trends" are based on publicly available information, in particular news articles and press releases, and do not necessarily reflect the opinion of

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