

Q Demand for communications systems is expected to continue to expand. What is NEC doing in the area of next-generation communications systems?

A First NEC is working with NTT DoCoMo (NTT Mobile Communications Network, Inc.) on a W-CDMA system, the standard for the third-generation mobile communications system in Japan and Europe, which is poised to become the global standard, under the name of IMT-2000. With its technological capabilities in this area, NEC will capitalize on opportunities in such regions as Europe and Asia, including Japan.

>> Anticipating the global trend toward digital broadcasting, NEC has delivered commercial digital terrestrial broadcast equipment to the United Kingdom and intends to leverage its large share in the world market for broadcast equipment to further boost its business. In addition, NEC has an exemplary track record in carrier networks with transmission equipment using wavelength division multiplexing (WDM) technology and asynchronous transfer mode (ATM) switching systems, which are indispensable for the high-speed processing of multimedia information. With such advanced products and technologies, NEC can offer complete network solutions to customers worldwide.

In fiscal 1998, sales of communications systems and equipment increased a slight 2 percent over the previous period, to ¥1,717.3 billion (\$12,912 million), and accounted for 35 percent of net sales. Although sales of cellular phones were buoyant, domestic sales fell overall due to a leveling off of infrastructure investment by cellular operators. Strong overseas sales were largely attributed to growth in sales of switching systems.

>> Sales of **switching systems** rose, chiefly due to an increase in shipments to Latin America, Russia, and other overseas markets, which compensated for a decline in domestic sales. NEC's ATM switching system—selected as the core switching system for the next-generation network at Sprint Corporation, of the United States, one of the world's largest telecommunications providers—started operation. This event will serve as a springboard for future gains in the U.S. market.

>> Sales of **mobile communications systems** fell sharply during the term. Although the number of new subscribers to cellular phone services in Japan continues to rise, NTT DoCoMo and the new common carriers (NCCs) completed a phase of investment in extra capacity, causing a decline in sales.

>> **Transmission systems** sales were level with the previous period. Domestic sales fell, owing to the completion of a round of investment in integrated services digital network (ISDN) related systems to combat burgeoning Internet congestion. Overseas sales of synchronous digital hierarchy (SDH) systems rose, reflecting increasing Internet traffic, and sales of access systems in Russia and Asian countries outside Japan were robust.

>> Sales of **radio systems**, including microwave communications systems, broadcast equipment, and satellite communications systems, were even with those of the previous term. Delivery of a satellite communications system to ICO Global Communications Holdings B.V. boosted overseas sales.

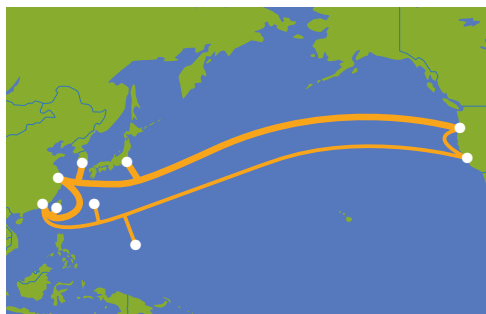
>> NEC registered sales gains in **mobile communications handsets and other equipment**, which include cellular phones, facsimile equipment, and pagers. The Digital mova N203 Hyper, which at 92 grams was the world's lightest cellular phone at the time of its launch, boosted NEC's market share.

Highlights of the Year

□ Digital mova N203 Hyper, a cellular phone, sold well in Japan
□ ATM switching systems, delivered to Sprint Corporation, starts operation
□ The world's first commercial digital terrestrial broadcast equipment delivered to the United Kingdom
■ Orders for SDH systems received from China
■ High-capacity D-WDM system developed
■ Order awarded for submarine cable project linking the United States and China
■ New wireless terminal adaptor announced

NEC Awarded Submarine Cable Project Linking the United States and China

Some 50 companies, including Nippon Telegraph and Telephone Corporation (NTT), Kokusai Denshin Denwa Co., Ltd. (KDD), both of Japan, China Telecom, and AT&T Corp., of the United States, are cooperating on a submarine cable project in response to increasing communication traffic in the Asian-Pacific region. WDM technology will be used in a 30,000-kilometer loop linking China, the United States, Japan, Korea, and Taiwan to create an international communications infrastructure for these countries' multimedia needs in the 21st century. NEC, together with a KDD subsidiary, has received an order to construct 15,000 kilometers of the network.



NEC Develops High-Capacity D-WDM System

WDM allows the simultaneous transmission of multiple optical signals through a single optical fiber, thus economically expanding capacity in optical networks. NEC developed a dense-WDM (D-WDM) system and delivered it to Frontier Communications International, Inc., the sixth largest long-distance telecommunications



provider in the United States.

Furthermore, NEC has outpaced its competition with the development of a D-WDM system with optical add/drop capabilities.

AtermIW60 Wireless Terminal Adaptor Released

In December 1997, NEC released AtermIW60, which in addition to conventional terminal adaptor (TA) functions allows users to easily create



wireless digital networks in the home by using personal handyphone system (PHS) handsets. Through integration with ISDN and PHS systems, AtermIW60 enables the easier use of networks in small offices and home offices (SOHOs).

NEC has a leading share of the Japanese TA market, and its superior technologies are winning praise.

NEC Wins Orders for SDH Systems from China

In October 1997, NEC received an order from China to build one of the world's largest SDH microwave trunk networks connecting Beijing to Guangzhou. NEC received another order for SDH FOTS's trunk networks connecting Hohhot to Beihai.

The Chinese government has given priority to communications infrastructure development to support economic expansion. The orders—awarded from among bids by major global competitors—attest to NEC's strong reputation for superior technology and reliability as well as an established history in China.