

# NETWORK!

FOR PEOPLE IN THE NETWORK SYSTEMS BUSINESS OF LUCENT TECHNOLOGIES

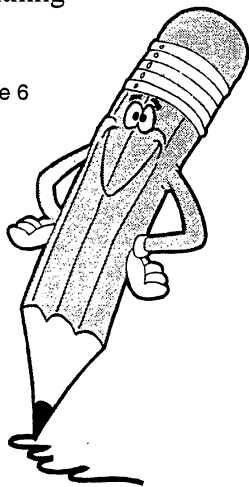
## Take the Lucent Technologies Challenge

Here we go *NETWORK!* readers—it's time for another Lucent Technologies' Challenge. Get out your pen and ... what you don't have a pen handy? Well, lucky for you, the prize for this month's quiz is a Lucent Gunmetal Rollerball pen. To win one, answer these five questions and send in your completed quiz to *NETWORK!*. The answers can be found in the last five issues, including this one. Good luck!

1) Recently, Network Systems won multimillion dollar contracts to supply advanced telecommunications equipment to New T&T and Komselindo. In which countries are New T&T and Komselindo located?

2) What is the name of the new NS Policy Deployment initiative to define, develop, manufacture and get products into customer hands with lightning speed?

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## Lucent's Access Interface Units (AIU) Bought by Ameritech

Lucent Technologies announced that Ameritech has purchased more than 500 of Lucent's Access Interface Units (AIU) which will help ease the battle for network access between Internet users and users making ordinary telephone calls.

Lucent's AIU, manufactured solely at the Oklahoma City Works, is a line unit—a collection of circuit packs to which customer lines are connected. The AIU is located in the central office switch and helps relieve phone network congestion caused by heavy Internet traffic. It

is part of Lucent's 5ESS® Switch Module-2000 and is supported by Lucent's newly announced 5E11 software release. AIU is a key element in reducing the number of blocked calls. The AIU has been tested at an Ameritech central office in Naperville, Ill., and will be used in other offices soon. Ameritech's Naperville installation represents the first commercial use of the AIU in the nation. Ameritech is in the process of installing the AIUs in switches in Illinois and Wisconsin.

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## Lucent Shines at CeBIT '97, World's Biggest, Most Diverse Technology Exhibition

CeBIT '97, which took place in Hannover, Germany, March 13 - 19, is no ordinary trade show. For a start, the exhibition pulls together over 6,000 exhibitors with 2,600 representing countries outside of Germany. And its 650,000 visitors have plenty of time to take in the world's hottest new technology developments.

"CeBIT is not just a big show for Germany," explained Detlef Linssen, managing director, NS operations in Germany. "It's also one of the very few genuinely pan-regional events in the calendar. New innovations traditionally get their first outing at CeBIT, and the show itself has enormous scope — from computing to communications to multimedia, for consumers and OEMs — so it's a real 'must-be-there' event for us."

So it's not surprising that in Europe, all eyes have been on Hannover for the last few weeks. Not only is CeBIT a big show, it's in a key nation for NS EMEA (Europe, Middle East and Africa). "Germany is one of our key countries, and Deutsche

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## In the News

### Lucent's Vision

*(Excerpts from a Communications Week interview with Lucent President and Chief Operating Officer Rich McGinn)*

**CommWeek: What is Lucent's vision and focus?** **McGinn:** Our desire is to be the number one communications systems provider in the world. Semiconductors, software and wireless are big pieces of our business.

**CommWeek: What is your priority?** **McGinn:** Digital switching remains strong because of the explosion of the Internet and work-at-home users, with service providers spending a larger percentage on transport and access to databases and the Internet. The second focus is wireless in its various forms, whether it is the chips, the software, the terminal devices or the infrastructure.

**CommWeek: What is your wireless strategy?** **McGinn:** We are the only player addressing all the wireless standards: TDMA, CDMA and GSM. We have about 60 percent of all PCS infrastructure [orders] in the United States. *(Communications Week, March 17)*

### Lucent Japan Telephony Products

Lucent Technologies Japan announced that the company [will] start marketing its Internet telephony products. Telephony servers to transmit voice and fax over the Internet will be sold through distributors. *(Nihon Keizai Shimbun, Nikkan Kogyo Shimbun, Nikkei Sangyo Shimbun, Nihon Kogyo Shimbun, Dempa Shimbun [Japan], March 12)*

## CeBIT

Continued from page 1

Telekom is a designated strategic account," explained Linssen. "So in terms of our strategy in EMEA it's vital that we make an impact at CeBIT. It's a key way in which we are making sure that our customers know that we are an intrinsic part of the market in Germany."



### CeBIT '97

Lucent Technologies has announced it is planning to double its indirect sales channels in Europe, Middle East and Africa, over the next twelve months. The move follows a reorganization of its sales and marketing strategy and the establishment of a distributor support program. *(Cebit News, March 15)*

### Nortel Loses To Lucent

Northern Telecom has lost in its bid to sell more specialized communications equipment to AT&T after the U.S. phone company said yesterday it plans to buy from Nortel's arch-rival Lucent Technologies. But analysts said the deal reflects AT&T's long-standing relationship with Lucent, formerly a subsidiary, and not the capability of Nortel or other equipment makers. AT&T has agreed to buy 50 specialized data and video transmission networks, called SONET rings, from Lucent by the end of 1998. That decision likely means Nortel will be shut out of [AT&T's] SONET business, which represents a major portion of [AT&T's] \$8 billion to \$9 billion capital spending program in 1997. *(Financial Post (Toronto), Hong Kong Standard, 3/19, CNBC, NBC, March 18)*

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The German team has worked closely with the product and regional support groups to ensure a successful show. Business Communications Systems and NS pooled their resources to mount a single exhibit showcasing their entire product ranges, and both businesses took the opportunity to launch several new products. The wireless group showcased several new GSM and DCS 1800 developments.

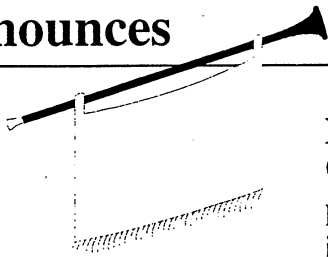
"CeBIT is the world's biggest, most diverse technology exhibition," said Dick Snyder, marketing director, GSM. "GSM has now been adopted in over 90 countries, so we need a genuinely international platform for our products and services. And, of course, Germany itself is a key market in which both the GSM group and Network Systems are aiming to take sizable market share over the next few years."

A key NS showcase opportunity was the BTS-2000 radio base stations installed for T-Mobil, to provide the show's visitors with reliable telecom access in the exhibit halls and adjacent areas. T-Mobil is the largest of three cellular network operators in Germany.

Another important demonstration for NS at CeBIT was a high-bandwidth SDH transmission system, currently trialing with Deutsche Telekom. All of the research and development surrounding the trial took place at the Nuremberg development center, formerly part of Philips PKI, before its acquisition by Lucent Technologies last year.

"When Lucent acquired the Nuremberg operation, it gained a strong presence in Germany, and the potential to support Deutsche Telekom much more closely. It's a testament to the quality of our people here, as well as to Lucent's policy of developing close to the customer, that we've been able to successfully implement this trial, which really is at the leading edge of technology," Linssen said. □

## NS Announces



### Lucent, Finolex Cables Inaugurate State-Of-The-Art Fiber Optic Cable Plant

Lucent Technologies and AT&T Finolex Fiber Optic Cables Ltd., a leading electrical and telecommunication cable company in India, inaugurated a joint venture fiber-optic cable manufacturing plant in Urse, Pune. The state-of-the-art plant began operations on January 1 this year and manufactures, markets, and sells international-grade dielectric and armoured fiber-optic cables to the fast-growing \$70 million Indian telecommunications market. As part of the joint venture agreement, Lucent Technologies is providing its Bell Labs fiber technology expertise.

### Lucent Awarded CDMA Contract By Piltel

Lucent Technologies announced that it has signed a \$23 million contract with Pilipino Telephone Corporation (PILTEL)—the leading cellular provider in the Philippines—to supply and install a Code Division Multiple Access (CDMA) wireless network. The network, which will cover the northern and southern areas of the island of Luzon, will be operational mid-year.

Under the contract, which expands an on-going partnership between the companies, NS will set up an overlay CDMA system on PILTEL's existing Advanced Mobile Phone Service (AMPS) network, and supply a 5ESS®-2000 DCS Switching System, AUTOPLEX® System 1000, and 33 cell sites.

Said Ramon Cojuangco, PILTEL's president and CEO, "Lucent Technologies' commitment to the project and experience in deploying wireless networks will enable us to meet our increasing subscriber demands in record time."

### Lucent Installs Intelligent Network Services for PT Telkom

Lucent Technologies has completed installation of an intelligent network (IN) platform for PT Telkom of Indonesia that will make calling more convenient for business and residential customers.

By enabling network operators to make their network programmable, intelligent network technology allows network operators to bring new services to the market quickly and efficiently.

These service improvements are aimed primarily at business customers, such as airlines, hotels, retail outlets, and restaurants.

NS' advanced switching equipment and software will support PT Telkom's program to offer high-tech telecommunication services in Indonesia, which plans to become a world-class operator by the year 2001. □

## In the News Continued from page 2

### Nortel To Increase European Sales

John Roth, who revived the fortunes of Nortel's North American operations and who recently was named its next chief executive, said he is "looking for 29% growth" in annual revenue for Nortel's European business over the next two years or so. In an interview at CeBIT, [Europe's annual] technology trade show, Mr. Roth conceded that Nortel's brand isn't known in Europe as well as the brands of other makers of telecommunications gear, such as Motorola, Ericsson and Lucent Technologies. (*European Wall Street Journal*, March 14)

### Lucent Foundation

Professors from County College of Morris [New Jersey] will step out of their classrooms to scrutinize a high-tech manufacturing operation in Mt. Olive. Their goal will be to develop a 21st century curriculum for American workers. The Lucent Technologies Foundation gave a \$70,000 grant to the college for an assessment of skills needed for modern manufacturing. It is part of a three-year effort by the foundation, at a cost of \$3 million, to develop community college-level educational standards needed by the industry. (*Star-Ledger*, March 14)

Columbus State Community College is forging a partnership with Lucent Technologies to develop the area's next generation of manufacturing employees. The school plans to use a \$35,000 grant from the recently established Lucent Technologies Foundation to build an education curriculum that will develop a pool of workers for Lucent as the technology firm expands. (*Business First [Columbus]*, March 7) □



# Workhorse Of The Switching Infrastructure Is Strong And Getting Stronger

The Lucent Technologies 5ESS®-2000 Switch Business Leadership group (BLG) recently formulated the global strategy for the 5ESS-2000 Switch, equipment which switches voice, data and video signals through phone networks. The strategy will capitalize on the switch's capability and growing demand and will incorporate the Lucent objectives of speed, growth, customer focus, and investment in people. The 5ESS-2000 is used by many customers, and amid today's marketplace of deregulation, Internet growth, and demand for wireless and wireline convergence—the 5ESS-2000's demand is growing.

How has the 5ESS-2000 switch grown to be so successful? Its history tells a success story because the 5ESS-2000 switch was able to adapt to changing technology and customer demands.

The 5ESS-2000 switch was designed to handle change so when a customer implements a new technology or application, the hardware of the switch could stay the same while the software running the switch could be modified.

In 1982, the first 5ESS switched local residential phone calls in Seneca, Ill. Today the switch functions for all types of service providers, such as traditional telephony, wireless service, cable television, and Internet service providers. In 1987 the 5ESS switched local calls in Korea and the next year handled international calling (Gateway switching). The switch can, therefore, be sold to all types of customers, globally.

The 5ESS switch evolved in size and functionality to become the 5ESS-2000 switch. Also, in the 90's it became simpler—with single trunk and access units—and more powerful and compact than ever.

"Customers benefit because the 5ESS-2000 switch has increased in capacity—switches more calls and handles heavy Internet traffic—while decreasing in floor space," said Hilton Nicholson, director for 5ESS-2000 strategy. "The 5ESS-2000 at the same time requires less power consumption and operational cost."

The switch also adapted to technological changes, so that customers could keep up-to-date with the marketplace. The 5ESS-2000 first accepted analog (voice) information but now can also handle digital (voice, video, data, Internet) information and wireless as well as wireline calls. This is how the 5ESS-2000 got the nickname "the AnyMedia™ switch."

The 5ESS-2000 switch helps a service provider keep networks state-of-the-art with Bell Laborato-

ries software. The newer versions of the switch, however, are still compatible with the older versions. So when customers want to update their systems, they do not have to buy all new equipment, and they save money.

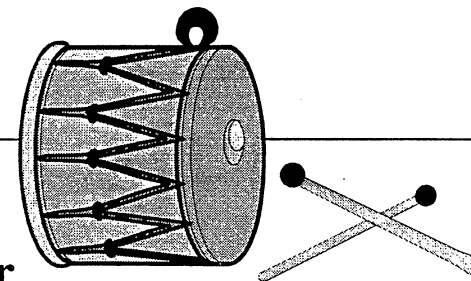
The 5ESS-2000 switch's greatest asset, its flexibility, has made it valuable to the customer and also has made it competitive with other switches. According to an analysis of the Federal Communications Commission (FCC) Armis data, the 5ESS-2000 is the most reliable switch and has the lowest maintenance costs in the market.

"The 5ESS-2000 switch is far ahead of its competition," said Nicholson, "in terms of allowing service providers quicker access to new markets." □

## Of Interest

### New Publication For Marketing And Sales People

*Marketing Drumbeat* is a new monthly publication created to provide Network Systems' Customer Teams with what they need to know about new sales and marketing initiatives, communications, intelligence, events, product launches, learning opportunities and NS initiatives. It is available the first week of the month on the Customer Team Infoware Systems at <http://rafiki.wh.lucnet.com>, and is mailed directly to all International, AT&T, Global Commercial Markets, and



North America Region Customer Team members. Currently all articles are in English, with selected articles translated into Spanish, Chinese, Korean, and Japanese. If you do not receive the paper version of *Marketing Drumbeat* in your mail, you can access it on the Lucent web at: <http://rafiki.wh.lucnet.com/mktdrum/mktdrum.htm>. For questions or more information, contact Ken Herron, +1-908-559-7216(voice), +1-908-559-1752 (fax), or [akherron@lucent.com](mailto:akherron@lucent.com). □

# Industry Watch

## Takeover Bid For Sprint

Cable & Wireless (C&W) PLC is considering a takeover bid for Sprint. C&W hopes to create a global communications colossus that would serve the United States, Europe and Asia. A bid by C&W would be a strong counterpunch to British Telecommunications' planned \$21 billion acquisition of MCI. (*Wall Street Journal, March 19*)

## BellSouth In Latin America

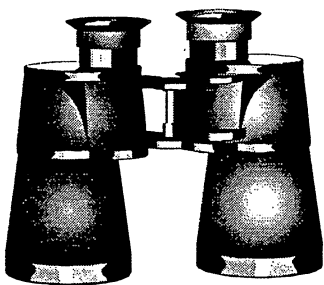
BellSouth has purchased a 61 percent interest in Otecel, an Ecuadorian wireless company. The purchase gives BellSouth a major interest in telecommunications companies in eight Latin American countries. (*Atlanta Constitution, March 19*)

## Trade Agreement

The new Canada-Chile trade agreement is already reaping benefits for Canadian companies, and the U.S. administration is getting anxious to catch up. The one-year pact gave Northern Telecom the edge in landing a \$200 million contract in Chile over rival American competitors. (*Financial Post, March 19*)

## Motorola Expands In Germany

Motorola plans to acquire the mobile radio business of Germany's Robert Bosch GmbH in a move to expand its presence in the German market amid a trend toward digital technology. (*Wall Street Journal, New York Times, March 13*)



## AT&T Wireless Project

When AT&T looked for help in developing a new wireless technology that it hopes will lure hordes of local phone customers, it turned to suppliers not normally on the radar screens of its telecom rivals. Rather than using its regular suppliers, Lucent Technologies, Inc. or Ericsson, AT&T turned to German giant Robert Bosch GmbH as well as Radix Technologies, Inc., a tiny Northern California maker of sophisticated defense systems, according to executives involved in the project. The work with Bosch and others underscores AT&T's determination to build its own direct local-phone links to consumers and businesses whether these be via its wireless network or the resale of local Bell lines. [The proprietary wireless system] is designed to provide regular phone services and better data handling. AT&T claims the system offers a level of service quality that exceeds the regular Bell lines. (*Wall Street Journal, March 20*)

## U.S./Japan Telecoms Clash

Friction between the U.S. and Japan intensified yesterday after Washington informed Tokyo that business licenses for telecommunications companies Nippon Telegraph and Telephone and KDD would depend on further moves by Tokyo to liberalize its telecoms market and spur government procurement of foreign telecoms equipment. The U.S., through its embassy in Tokyo, formally requested that the Japanese government abolish a rule that restricts the foreign shareholding in NTT and KDD to less than 20 percent. (*Financial Times, March 16, Wall Street Journal, March 17*)

## Global Phone System

Teledesic has been awarded a license to build, launch and operate a system of 840 satellites that will beam voice phone calls and Internet service anywhere in the world. The FCC granted Teledesic a license Friday, opening the way for the \$9 billion system to be operating by 2002. Backed by Bill Gates and Craig McCaw, the system would be faster than current Internet service, making it useful in countries with developed phone systems. But it also could provide high-tech communications to anyone with a phone or computer in remote areas where no ground lines exist. Underdeveloped countries might even find it unnecessary to go to the enormous expense of building a telecommunications infrastructure. (*USA Today, March 17, Wall Street Journal, March 17*)

## Portable GSM Solutions

Ericsson said it entered into an alliance with Compaq Computer to develop integrated portable PC GSM solutions. The solutions will enable mobile business users to seamlessly connect to the Internet or corporate intranet, send faxes and electronic mail and exchange documents. (*Wall Street Journal, March 17*)

## Alcatel Earnings

Alcatel was expected to report 1996 earnings of up to FF2.66 billion on Tuesday, analysts said, rebounding from a FF25.6 billion loss, one of the biggest in French corporate history. Telecom analysts warned, that Alcatel still has to improve the performance of its telecommunications unit to compete with the likes of Nokia and Lucent Technologies. (*Asia Times, March 18*) □

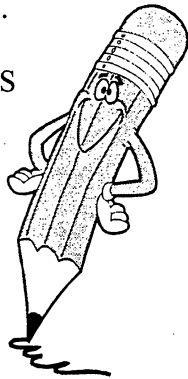
## Challenge

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- 3) True or False. Network Systems Espana recently won an award for the best overall corporate management in the area of environmental protection.
- 4) By how much did NS' 1996 MWBE results increase over 1995 results?
- 5) Name one way to subscribe to **NETWORK!** electronically. (Hint: look at this page.)

For fastest delivery, fax your completed quiz to **908-559-1257**, or e-mail it to **nsnews@attmail.com**. Please be sure to include your name, address, room number, and phone number so we can mail out your prize if you win.

To allow for time differences among NS locations, we will randomly pick 10 winners from all correct entries received by Wednesday, March 26.



## Ameritech

Continued from page 1

The AIU makes it possible to give dedicated circuits to consumers who make a lot of long calls, such as those on the Internet, and to do so in a more cost effective manner.

AIU is more cost-effective in a number of ways:

- ◆ It uses existing equipment rather than adding expensive overlay equipment.
- ◆ It increases the number of lines per circuit pack, using less floor space for the same amount of connections.
- ◆ It requires fewer physical line rearrangements and power needs.
- ◆ It eliminates duplicate terminations.
- ◆ It reduces the need for craftspeople to learn new procedures.



### Surf the Network Systems Web site!

1. Go into the Lucent home page at <http://www.lucent.com>
2. Click on "Systems for Network Operators"

Look at current or past issues of **NETWORK!** or subscribe to **NETWORK!** at <http://infoview.lucent.com/pubs/network>.

### Letters to the editor



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