

NETWORK!

FOR PEOPLE IN THE NETWORK SYSTEMS BUSINESS OF LUCENT TECHNOLOGIES

Around NS

Country Profile: Germany

Situated in central Europe with an area slightly smaller than the U.S. state of Montana and a population close to 80 million, Germany has become the largest telecommunications market in Europe and the third largest in the world. With companies

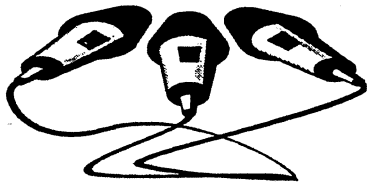
such as Siemens, Alcatel and Nortel vying with Lucent for positioning, Germany could well be the most competitive. The market is estimated to reach \$65 billion in services by the year 2000. Lucent currently has around 2,000 employees representing Network Systems, Business Communications Systems and



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Live from Lisle/ Naperville...

NS Employee
Broadcast
August 14



For details, see "Employee
Broadcast" on page 3

NS Announces

Lucent Becomes Exclusive Digital Wireless Vendor for Ameritech

In what analysts have termed a "major win," Lucent Technologies and Ameritech Cellular Services have signed a five-year contract that makes Lucent the sole infrastructure supplier for Ameritech's wireless services, including its new ClearPath™ digital wireless service.

The contract calls for Network Systems to provide 5ESS®-2000 Switches and wireless base stations, and the related hardware, software, and installation and engineering services for the entire

infrastructure of Ameritech's ClearPath digital wireless network.

The contract also calls for Network Systems to supply other equipment for Ameritech's offer of ClearPath Personal Communications Services (PCS). Ameritech Cellular Services will rely on CDMA technology for both its PCS and digital cellular service.

According to Hambrecht & Quist analyst, Joe Noel, in a statement to Reuters news agency, "Lucent is simply knocking the cover off the ball on the wireless side." □

Feature of the Week

Look Who's Turning 40— A Columbus Works Anniversary



For some, reaching 40 is an occasion for anxiety. For the people of the Columbus Works, however, 40 years of manufacturing excellence is a reason for celebration. This week, that's just what they're doing at one of Lucent's oldest manufacturing locations—celebrating the Columbus Works' 40th anniversary.

A Leader Then and Now

The Columbus Works had its groundbreaking on June 12, 1957. In its first year, the facility was named one of the "Top 10 Plants in the Nation" by *Factory Magazine*. It was described as "a marvel of planning for the present and future."

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The Celebration: Look Who's Turning 40

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"Forty and Forward"

How do you celebrate 40 years manufacturing the equipment that makes a telecommunications giant successful? Well, at the Columbus Works, it's not by engaging in

reveries about "the good old days." The employees are celebrating by concentrating on the present and the future. Throughout the week-long 40th anniversary celebration, the theme is "Forty and Forward."

Employees will

be meeting with their management in three "business management" programs to discuss the future directions of Lucent Technologies, its competitors, and how the Columbus Works can support Lucent's business strategies and thwart those of the competition.

But it won't be all business. A trivia contest—complete with prizes—will allow employees to test their knowledge of Columbus Works' history. The culmination of the anniversary celebration will come on Sunday, August 10 with a picnic for approximately 9,000 employees, family members and guests. Special guest, Jo Ann Davidson, a state legislator, is scheduled to be there on behalf of the governor to declare the date "Lucent Day" for Columbus and all of Ohio. □



Good observation. Today the facility has become the hub for manufacturing Lucent's leading-edge wireless equipment for switching and networking—products such as the Series II Cell Site, Series IIm Minicell, Series IImm Microcell and the 4ESS® switch. With over 5,200 employees, Columbus Works is the eighth largest private employer in central Ohio.

The Columbus Works Global Provisioning Center (GPC), which opened in 1994, was the first in Lucent and was the model for all the other GPCs. Global Provisioning Centers ship products to customers using a process called "whole order delivery." This process allows the Columbus Works to ship complete and ready-to-use systems to customers such as AT&T Wireless, U S WEST and Bell Atlantic/Nynex Mobile, as well as to customers in Korea, Brazil, India and Saudi Arabia.

Changing Times

Senior financial planning manager, Wanda Earnest, began working at Columbus Works in 1964. She remembers the days when Columbus Works was a Western Electric facility manufacturing the old No.5 Crossbar switches and electromechanical devices for AT&T. "I've seen a lot of changes over the years," she says. "One of the biggest changes I've seen is the idea of 'customer obsession.' When I started, there was one customer—AT&T. Now we have customers all over the world. It makes the work more exciting and challenging."

Those challenges are appreciated by Dave Winegarden, Plant Engineering. He's been working at Columbus for 28 years. "It used to be the factory floor space was taken up by punch press machines for steel work and mold presses for

plastic. Today, things are much cleaner with state-of-the-art equipment, but the changing technology demands that your knowledge and skills keep pace," he observes. "You have to keep growing."

40 and Still Growing

Grow is just what the Columbus Works has done: from one customer to a world full, from a single manufacturing location in Ohio to overseeing locations in New Jersey, Brazil, Germany and France. And continuing to grow is what the employees look forward to doing. Katharine Elliott, Public Relations project manager for the 40th anniversary celebration, sees it this way: "This anniversary is a wonderful opportunity to reflect on the past but, more important, it's an opportunity to see how we are a part of the evolution of the telecommunications industry. We at the Columbus Works are at the heart of that evolution with our work in wireless, helping our customers to grow. And as they grow, we grow."

Jim Brewington, president, Product Realization, is amazed by the changes the years have brought. "When I first started visiting Columbus we were making our series II radio equipment 'between the walls' in small rooms not even part of the primary manufacturing space," he remembers. "Today, wireless is the Columbus Works. It's an amazing transformation into the highly competitive, fast-growing global mobility world. Congratulations to all the folks at the Columbus Works."

Winegarden observes: "The people of the Columbus Works, past and present, should be proud. Throughout these four decades, we've always delivered." □

—Rick Bossman



Germany

Continued from page 1

Microelectronics at six main sites throughout Germany: Bonn, Augsburg, Nuremberg, Munich, Hamburg and Frankfurt. Lucent employees in Germany do everything from the manufacturing of fiber-optic cable in Augsburg to developing switching systems in Nuremberg.

In May, Network Systems Germany signed a contract valued at more than \$30 million with T-Mobile, Germany's largest cellular service provider, to expand the nationwide D-1 network, which currently serves approximately 2.5 million subscribers. Lucent will supply and install BTS-2000 Radio Base Stations and the Compact BTS 2000/2C base transceiver station, regarded as one of the most powerful GSM Base Stations in its class.

Facts about Lucent in Germany

The German market accounts for 15 percent of Network Systems' revenue in the Europe/Middle East/Africa region.

Number of employees

Network Systems—1,900

BCS—65

Microelectronics—65

Some key Network Systems customers in Germany

Deutsche Telekom

T-Mobile

Arcor

Otelo

Viag□

—Jonathan Schweig

Of Interest



Employee Broadcast

Dan Stanzione, Network Systems president, North America, will host a live employee broadcast from Lisle/Naperville, Ill., on August 14. The broadcast will begin at 10:30 a.m.

Eastern Daylight Time. Check with your local employee information people to find out where you can watch or hear the broadcast at your facility.

Call-in Number for Q & A session during broadcast
630-979-1026

To fax a question during the broadcast
630-224-5005

To submit questions prior to the broadcast
Send to Betty Torell (fax 908-559-1257).

Audio replay of the program is available for 24 hours after the broadcast

800-642-1687 access code 531891 (domestic)

706-645-9291 access code 531891 (international)

To listen to live translations during the broadcast

Spanish: 706-645-9710; **Portuguese:** 706-645-9730

For 800 service help on the day of the broadcast

800-374-2441 (domestic); 706-645-8600 (international)

For more information call 908-582-5864.

Request for Abstracts for Testing Conference

Employees in Lucent's design, manufacturing, CAD and research organizations are invited to submit abstracts for papers to be presented at the 1998 Lucent Conference on Electronic Testing (LCET98), scheduled for April 13-15, 1998 in Princeton, N.J. The deadline for submitting abstracts is September 24. Employees can also submit ideas for conference exhibits and tutorials by December 19. All submissions should be sent by e-mail to lcet@mach.pr.lucent.com. The LCET98 encourages the exchange of ideas on testing-related issues and technology among Lucent colleagues. The conference program covers presentations on testing topics, exhibits of test-related software and hardware tools developed within Lucent, and tutorials. General registration for the conference

will begin in February 1998. For more information, check out the LCET98 home page on the Web at <http://eet.web.lucent.com/~lcet> or send e-mail to lcet@mach.pr.lucent.com.

Saudi Project Job Openings

Lucent job opportunities are available in Saudi Arabia that require technical skills in operations and maintenance, customer support engineering and GSM technical support. In addition, people are needed who have project management and multicultural work experience. If you are interested, check ECOS advertisements under Country-Saudi Arabia and fax your resume with a cover letter to Network Systems International Human Resources at 908-559-1750.□

Industry Briefing

About Our Competition...

Motorola

◆ **Iridium System Transmits First Messages**—Motorola said the first satellite-to-ground messages were sent using an Iridium satellite. Iridium is a communications system designed to provide subscribers worldwide voice, data, fax and paging capabilities using phones and pagers linked to a network of 66 low-earth orbit satellites. Iridium LLC is an international consortium of numerous companies and organizations, including Motorola, Iridium World Communications Ltd., Lockheed Martin and Sprint. (*Reuter, July 31*)

Nortel

◆ **Nortel Gets Uruguay Contract**—Northern Telecom said it signed a \$15.5 million equipment and expansion agreement with Uruguay's state-owned telephone company, Antel [to expand Uruguay's digital wireless communications network]. (*Reuter, July 31*)

◆ **Nortel Wins Contract for Anaheim Network**—Nortel landed a two-year, \$11 million contract from SpectraNet International to supply the competitive local exchange carrier with switching equipment. (*Fiber Optics News, August 4*)

Pirelli

◆ **Pirelli Cable to Supply MCI**—A division of Pirelli Cable in Lexington has scored a \$50 million contract with MCI to provide fiber-optic technology. Pirelli's Telecom Systems division will supply MCI with Dense Wavelength Division Multiplexing machinery. (*Knight-Ridder/Tribune Business News, August 1*)

About Our Customers...

Qwest

◆ **Qwest Win**—Qwest Communications International recently

nabbed another new customer for its fiber facilities. ICG Communications will use Qwest's dark fiber to connect ICG's local networks in California, Colorado, Texas and the Ohio Valley. (*Fiber Optics News, August 4*)

In General

◆ **Internet Telephony No Threat**—Public network service providers like Sprint and MCI say they don't see Internet telephony as a threat to their bread-and-butter long-distance business, primarily because the voice quality just isn't there yet. But that doesn't mean that carriers aren't investigating Internet telephony and advanced applications. (*tele.com, July 31*)

About the Industry...

◆ **ATM Future**—In a recent survey of 210 network managers from midsize to large companies, Business Research Group (BRG) of Newton, Mass., found that 43% will implement ATM by the end of 1999. (*Network World, July 28.*)

◆ **DWDM Future**—Our research with industry sources indicates that demand for Dense Wave Division Multiplexing (DWDM) equipment continues to be strong on a global basis. While initial deployments of DWDM technology have been exclusively within fiber routes of long distance operators and undersea fiber cable routes, our research suggests that the market should expand to other telco operators such as local exchange carriers and international PTTs. (*UBS Securities, August 5*)

◆ **Global Internet Phone Service**—An international consortium of 11 Internet service providers acting in conjunction with Internet telephony vendor Vienna Systems Corp, recently established a global network devoted to providing international Internet telephone service. Internet telephony services on the network are available in the United States, the United Kingdom, Switzerland, Germany, the Netherlands,

Israel, New Zealand, Australia, Japan and Korea. (*Communications Week, July 28*)

◆ **Internet Telephony & AIN Converging?**—Some observers reason that the steady advances of both advanced intelligent network (AIN) and Internet telephony will result in a convergence rather than a competition. After all, with more than 800 million telephones on the public telephone network today, Internet telephony services will need to traverse both networks, says Kent Elliot, president and CEO of Vienna Systems Corp. (*tele.com, July 31*)

◆ **New Wireless Phone Network**—Seven regional U.S. and Canadian wireless telephone companies joined forces to create a digital network spanning the continent. The alliance includes Aerial Communications Inc.; BellSouth Mobility, part of BellSouth Corp.; Microcell Telecommunications Inc.; Omnipoint Communications Services Inc.; Pacific Bell Mobile Services, part of SBC Communications; Powertel Inc. and Western Wireless Inc. (*Dow Jones New Service, August 5*)

◆ **Microsoft Buys Share of Apple**—Microsoft, whose personal computer operating system software has long been the dominant alternative to Apple's Macintosh software, agreed to invest \$150 million for a nonvoting minority stake in Apple. Part of the deal calls for Microsoft's software for browsing on the World Wide Web, called Internet Explorer, to become the standard browser for use on Macintosh PC's. (*New York Times, August 7*)

◆ **Workers**—The number of well-educated professionals entering the United States to work is nearing the 65,000 annual cap, and officials are expected to stop issuing visas to them this month. The moratorium, the first since Congress set the limit in 1991, would strike at the heart of the high-tech industry. Foreign workers can resume applying when the new fiscal year begins Oct. 1. (*USA Today, August 1*)

Industry Briefing

Continued from previous page

◆ **World Wireless Standards**—To efficiently develop IMT-2000 wireless technology, the Korean government intends to incorporate technology from both Japan and the United States, which are competing for the world standard for this telecom service. Qualcomm, Lucent, Motorola and Nortel are jointly working to develop the U.S. standard, which they hope will become the world standard. (*Korean Economic Daily, July 28*)

◆ **Tapping New Markets**—In the near future, millions of consumers will surf the Internet from devices other than PCs. Screen phones, set-top boxes, hand-held computers, Internet appliances and game machines are just a few of the alternatives that will link citizens of the 21st century to the Web. Several companies, including Lucent and Microsoft, have released products or announced intentions to pursue this market. (*Inter@ctive Week, July 28*)

◆ **Bridging Phone and Fax Calls**—KIH Online, a leading Internet service provider in Kentucky, last week announced plans to offer statewide long-distance voice service, available from any telephone without the need of a computer, using Lucent equipment. Lucent's ITS system bridges real-time voice and fax calls between the Internet and normal phone lines. The service should be available later this fall. (*Star-Ledger [N.J.], August 4*) □

Letters to the editor



NETWORK! will publish signed letters as space permits – reserving the right to edit for clarity. Please include your name, work location, and a contact number where we can reach you. Opinions expressed in the Letters section do not necessarily reflect the views of Network Systems management. See our contact information at right.

NS In the News

Lucent Wins Ameritech Five-Year Contract

Some of the manufacturing [for the Ameritech win] will be handled at Lucent's Mt. Olive facility, which employs 200 people, said officials at [Lucent's] Murray Hill headquarters. (*The Star Ledger, August 6*)

Lucent Stock Evaluation

[After the Ameritech announcement...] We rate Lucent shares BUY and view the stock as a core holding for investors desiring exposure to the telecom equipment market. Our 12-month minimum price target is \$95 with additional share appreciation being triggered by earnings results above our expectations. (*Deutsch Morgan Grenfell Inc., August 6*)



Upping the Ante on DWDM Technology

Lucent is doubling its investment in optical networking technologies like DWDM in 1997 over 1996. Currently, the company offers an 8-channel DWDM system, but is on schedule to bring to market a 16-channel system in the fourth calendar quarter of this year. Currently, Ciena and Alcatel have 16-channel systems in the market. Ciena is planning a 40-channel system in early 1998, and Lucent has announced an ultimate capability of 100 channels. (*UBS Securities, August 5*) □

Letters to the Editor



New NETWORK! Format

Your new formatting of NETWORK! is a vast improvement over the old. The new format is much clearer and I can quickly get pertinent information out of it. Keep up the good work.—*Carlos Hoyt, Columbus, Ohio*

NETWORK!

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