

December 1996/January 1997

Lucient magazine



Wireless Wins Big Agile Joins Fold What A Year

letters



Rolling With Lucent

I thought you might like to see how Lucent is getting some notice in Omaha. I've been getting comments about my Nebraska Lucent prestige plates, ranging from co-workers — at the Omaha Works manufacturing plant — wanting to know "how do you rate?" to strangers curious about the name. It gives me a chance to tell people who we are and what we make. In fact, I think my Lucent plates get a lot more attention than did my old prestige plates. Those plates had "AT N T."

Chuck Coufal, Omaha, Neb.

Balloons Not!

I am angry because the cover on the November Lucent Magazine shows what appears to be a balloon release. Studies done in the '70s and '80s have established that these seemingly fun events are damaging to the environment, especially to birds and other wildlife predisposed to eating colorful things. This is beyond environmentally irresponsible — this is just plain stupid. I am certain that this release took the lives of several innocent animals.

The irony of this is that, today, in the same mailbox that I received my Lucent Magazine, I also received "Electronicle." This is a Microelectronics publication. In this, there is an article describing our attempts to comply with ISO 14001, the environmental standards set by the ISO organization. Lucent's stated ISO 14001 policy: "To identify, manage and prevent environmental problems." These are incompatible!

John Haselsberger, Allentown, Pa.

[Thanks for raising a good point. Lucent has a very strong commitment to environmental responsibility. In Murray Hill, the small balloons were dropped from the hot air balloon and all picked up before they blew away. However, other locations did release latex balloons, which are biodegradable, but could still pose a threat to wildlife. As Lucent people, we should all be aware of the environmental impact of our actions. Again, thanks for raising our consciousness. -Editor]

Eye-Catching and Enticing

No other internal company magazine is more eye-catching and more enticing to read from cover to cover than Lucent Magazine. The cover alone is a major stunner! The articles are overwhelmingly interesting and absolutely informative. Lucent Magazine is an innovative idea whose time has come, just when employees need it most. It keeps us in-the-know. I really enjoyed October's "Making Each Customer Feel Special."

I hope you could publish more articles about the rapidly developing Asia/Pacific Region in future issues. This way, readers can get relevant updates and essential bits of information from both the western and the eastern parts of our Lucent "world."

Anthony G. A. Cosico, Makati City, Philippines

The X-System Invented Here

In the listing of Bell Labs accomplishments (June 1996), there is an important omission of an invention that ranks with the transistor, especially in view of the present digital age. The list could have included "1940—Invented and developed digital speech system that linked military headquarters on five continents." It was an unbreakable, encrypted system that also had links to the White House and Winston Churchill. A terminal was even located on a barge that followed Douglas MacArthur on his approach to Japan. The details of the "X-System" never became very well known. Because of its nature, it was buried away in secret files for 30 years. With the introduction of fiber-optic systems, digital transmission finally found a home in the telephone system.

Ralph L. Miller, Chatham, N.J.

Peer Review

I'm a Lucent technician working in the San Jose area. I read the September Lucent Magazine. I wanted to comment on the article about a technician, "The Indiana Jones of Installers." I thought it was very well done.

Andy Cortinas, San Jose, Calif.

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and ideas for articles.

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On the cover:

Wireless base stations, like
this one in Fort Lauderdale,
Fla., are part of end-to-end
PCS networks that Lucent
helped engineer and build
for PrimeCo Personal
Communications L.P. in
nine U.S. cities.

Wireless Wizardry

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Speed Key to Success



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Lucent Technologies
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Wireless Wizardry

Promising to deliver a new product in record time is one thing. Actually doing so is another. In a remarkable display of speed, Lucent Technologies in mid-November rolled out not just a product, but several digital wireless

networks of a variety never before commercially deployed in the United States.

Process Technician Robert Lowthert tests mini-cell base stations at Lucent's Product Realization Center in Mount Olive, N.J., to assure quality and reliability. The cells are used in 30 CDMA wireless networks Lucent is installing.

**Lucent Delivers
Wireless
With Speed**

An agreement in 1995 between Lucent and PrimeCo Personal Communications L.P. resulted in the first commercial availability of wireless service provided through Code Division Multiple Access (CDMA) for Personal Communications Services (PCS) networks. PrimeCo, which is a partnership among AirTouch Communications, U S West, Nynex and Bell Atlantic, launched its digital wireless service in 16 cities. Lucent concurrently engineered and built new networks for nine of those cities.

Gerry Butters, Network Systems president-North American Customer Business Unit, put the collaborative effort in perspective: "I am proud of the close working relationship that PrimeCo extended to Lucent Technologies in this effort. Because of it, PrimeCo was able to turn spectrum licenses into commercial service areas within only 16 months."

PrimeCo relied on Lucent for its CDMA PCS networks that serve the Florida cities of Miami, Orlando, Tampa, Jacksonville and Fort Lauderdale; Richmond and Norfolk, Va.; Houston; and New Orleans. In each of those markets, the wireless network uses Lucent's PCS CDMA mini-cell equipment and its flagship 5ESS-2000 switch, as well as Lucent's transmission equipment and power systems. Each

network offers wireless voice quality that approaches that of land-line systems by employing Lucent's 13-kilobit-a-second voice encoder (vocoder), an advantage that PrimeCo plans to use to differentiate itself from other wireless competitors.

"In addition to using a broader bandwidth than other standards, CDMA also ensures that a good path to the base station always exists by monitoring three paths simultaneously and picking the best one," said John Marione, director-CDMA development in Whippany, N.J. "CDMA also enhances voice quality by collecting what are known as reflected signals and then using them, if they are appropriately spaced in time, rather than automatically eliminating them."

To meet PrimeCo's aggressive service timeline for PCS, Lucent used its Product Realization Center in Mount Olive, N.J., which features systems engineering, design and manufacturing all in one location.

This drastically cut the time it took to get the PCS networks to market, but still allowed for testing.

"We did extensive tests of CDMA in the laboratory and in the field for the last year and a half prior to PrimeCo's service being offered to the public," said Marione.

The modular design of the CDMA mini-cell equipment, along with roof-top installation, makes it easy to rapidly deploy new networks. "The time between order placement and product shipment can be as little as two weeks, which helped PrimeCo get to market fast," said Bob Sellinger, director of marketing for Lucent's Wireless Systems.

Lucent's marketplace strength as a wireless vendor lies in its ability to offer network components for all of the primary industry standards. And in the quickness with which Lucent can take a wireless network from blueprint to reality.

-Tom Landers

What CDMA Networks Bring to Customers

Lucent Technologies is one of the few wireless infrastructure vendors in the world to offer wireless equipment under the major global industry standards, including: CDMA (Code Division Multiple Access), TDMA (Time Division Multiple Access) — both of which are digital evolutions of the original analog cellular system known as AMPS (Advanced Mobile Phone Service) — and GSM (Global System for Mobile Communications), a European standard that has been adopted in many other areas of the world.

Compared with analog cellular service (the kind most Americans have today), CDMA offers reduced noise and other interference, and a variety of features and advanced capabilities, including:

- Greater capacity to handle more simultaneous calls on each channel.
- Improved call quality with transparent "soft hand-offs" as callers move from cell site to cell site within a service area.
- Ability to integrate voice, data and/or video services.
- Greater fraud protection.
- More power-efficiency than other systems, which extends telephone battery life.
- Fully interoperable with the wireline and wireless networks that serve North America.

Lucent Wins Big In Digital Wireless Market

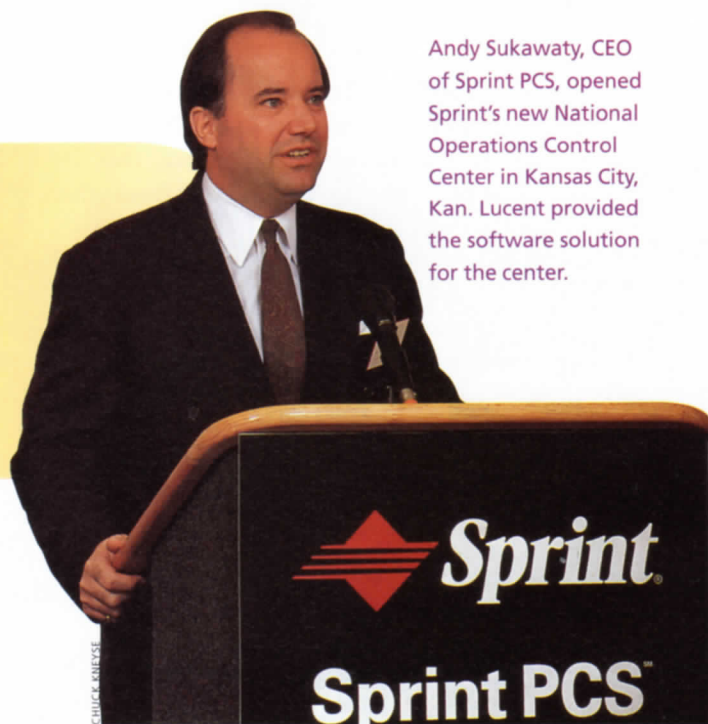
Near-frantic activity in the last quarter of 1996 made digital wireless networks the hottest item in the United States — aside, perhaps, from Nintendo 64.

Sprint PCS began a phased turn-up in late 1996 of its PCS CDMA network. It will cost about \$3 billion and encompass 65 U.S. cities, in what Sprint PCS is calling the first and only 100 percent digital nationwide wireless network in the country. Lucent has contracts to design and build about 60 percent of the network.

Sprint PCS also relied on Lucent in late October when Sprint unveiled its state-of-the-art National Operations Control Center in Kansas City, Kan. Lucent provided the operations, administration, maintenance and provisioning management software solution that allows Sprint PCS to manage its nationwide wireless network from a central location.

Speed was crucial in obtaining that business. "Lucent Technologies was able to deliver it to us in the extremely short time frame we required for this important launch," said Al Kurtze, Sprint PCS chief operations officer. "And Lucent

"Lucent presented a complete software solution that met our demanding requirements by integrating software from other vendors."



Andy Sukawaty, CEO of Sprint PCS, opened Sprint's new National Operations Control Center in Kansas City, Kan. Lucent provided the software solution for the center.

presented us with a complete software solution that met our demanding requirements by integrating software from other vendors."

In mid-November, Centennial Cellular Corp. held a pre-launch preview for industry and financial analysts of its CDMA PCS service in Puerto Rico. Lucent Technologies is building that network under a \$50 million contract.

GTE launched its first CDMA commercial service in Austin, Texas, in mid-November and was planning to add San Jose, Calif., to its digital wireless network in December. GTE is relying on Lucent for its CDMA wireless infrastructure in every major market it serves except San Diego.

In late November, NextWave Wireless Inc. and Lucent signed an agreement under which NextWave will purchase \$200 million in CDMA-based PCS infrastructure equipment and related services. Under the agreement, Lucent will provide 5ESS switches and PCS CDMA mini-cell equipment to build networks for NextWave in the New York and Boston metropolitan areas, and in other markets.

General Wireless Inc. announced in December that Lucent will build a PCS network based on CDMA technology. This five-year contract is valued at \$400 million.

Lucent Technologies has enjoyed wireless victories outside the United States recently. In late November, Lucent received an initial contract from Pacific Link, one of Hong Kong's six licensed Personal Communications Services operators, to supply its Global System for Mobile Communications (GSM) network infrastructure equipment. Pacific Link's total investment in the project is valued at \$130 million. The sale is significant because it marks Lucent's first DCS-1800 contract and deployment of next-generation wireless technology in Asia/Pacific. Also in that region, Shinsegi Telecom Inc. of South Korea awarded Lucent a \$71 million contract in early October to supply and install a CDMA wireless network. —Tom Landers

Wireless Wizardry

Bringing Better Wireless Products And Services to Market

Events in the global wireless arena seemingly occur with the same stunning speed as the radio signals that carry wireless voice and data traffic. A few issues ago, Lucent Magazine highlighted several wireless victories. Since that special issue, each part of the business has helped to advance Lucent's global leadership in wireless products and services.

Here's an update:

- **BELL LABORATORIES AND NETWORK SYSTEMS** — Bell Labs' wireless networking research department in Holmdel, N.J., and a technology development team from Network Systems (Whippany, N.J., and Naperville, Ill.) are developing the next-generation wireless infrastructure. Their work includes defining and creating the architecture, and validating the software technology.

The team's biggest challenge is to allow a call to roam seamlessly from its "home" switch to the limitless number of places where people want to use their handsets. The network arrangement needs to be small and at low cost, but still pack the extensive software that is necessary to route calls to anyone, anywhere, and provide the same kind of functional features that wired phones now enjoy.
- **BUSINESS COMMUNICATIONS SYSTEMS** — On Oct. 16, it made available the *DEFINITY* Wireless Business System/PWT (Personal Wireless Telephony) throughout the United States. This system uses pocket phones and operates in large work places such as high-rise buildings and campus environments. It delivers the same capabilities as desk phones, but without incurring airtime charges. The *DEFINITY* Wireless Business System PWT is part of BCS' *FreeWorks* portfolio of wireless telecommunications products. Also in October, BCS introduced a new pocket phone, the MDW 9030P model for Lucent's TransTalk 9000 system. Weighing only eight ounces, the diminutive phone provides all the functions of a business desk phone.



Pocket phones by BCS pack desk phone features to give workers complete mobility.

- **CONSUMER PRODUCTS** — Expects to deliver the first handset early in 1997 to AT&T Wireless Services as part of a contract signed in mid-1996 that calls for supplying more than 1 million digital cellular telephones during a two-year period. The first handset under the \$300 million contract is the Lucent Technologies Digital Portable Telephone 6720. Developed by Bell Laboratories, the 6720 can be used with both analog and Time Division Multiple Access (TDMA) digital cellular service.
- **MICROELECTRONICS GROUP** — In October, it announced that sales of a digital signal processor used in digital cellular telephones had reached the 20-million mark. The milestone chip, called DSP1616, manipulates, compresses and decompresses voice signals for clear and efficient transmission. In addition, Microelectronics announced in September that it had begun shipping to wireless equipment manufacturers the world's fastest DSP chip. Used in such wireless infrastructure equipment as base stations, the DSP 1620 operates at 120 million instructions a second, nearly twice as fast as competing products.
- **NETWORK SYSTEMS** — In September, Lucent's wireless communications and networking division introduced a new WavePOINT II wireless access point, which bridges standard Ethernet LANs to WaveLAN wireless LANs. At the Network+ Interop trade show in Atlanta, Lucent demonstrated how mobile users can obtain wireless Internet access within a campus environment. Lucent also showed off a prototype multimedia technology that enables mobile users to send or receive voice, data and video traffic simultaneously over a WaveLAN wireless network. ○

Multimedia Revolution Begins With

Agile Networks

Lucent and a small Massachusetts firm are gearing up for a revolution.



Working today on tomorrow's multimedia convergence are (clockwise from top left): Agile Network's Dave Donegan, Rich Collins, Zbigniew Opalka, Bruce Caram and Bill Seifert.

Agile has the right mix

of superb technology,
leading products and
excellent people.

Our recent acquisition of Agile Networks in Boxborough, Mass., adds crucial data networking competencies to our leadership in voice networking, placing us in a stronger strategic position for the multimedia revolution.

Multimedia means combining voice, data, video or other images that people want to send on the same network. When multiple media travel on a single ATM network, people can use one all-purpose multimedia device to communicate with others. ATM, or asynchronous transfer mode, is a transmission and switching technology that allows simultaneous transport of all kinds of signals at all kinds of speeds on a common network infrastructure.

That's a long way from today, when people use specific communications devices for specific media (telephones for voice, PCs for data and televisions for video), in most cases. Businesses today can perform some multimedia applications with Business Communications Systems' (BCS) *DEFINITY* and MultiMedia Communications eXchange servers, for instance, by connecting separate voice and data networks, but the transformation has only just begun.

"While many companies say they believe in convergence, few are acting on that belief," said Carl Pavarini, vice president of multimedia systems at BCS. Before identifying Agile Networks for acquisition, Pavarini took a long hard look at what Lucent is (a voice networking leader), where we wanted to go (a multimedia networking leader), and what we needed to get there.

Technology and Talent

"To succeed in the next generation of networking, we not only need the competencies, customer understanding and customer contacts like the ones we have in voice networking today, but also significant technical competence in, and customer understanding of, the data world. Agile has the right mix of superb technology, leading products and excellent people," said Pavarini.

Agile designs, manufactures and markets products that connect Ethernet and ATM local area networks in a building or campus backbone environment. Not unlike BCS, Agile has a customer list that includes the likes of Bear Stearns, Hewlett-Packard, the U.S. Army Reserve and NTT in Japan.

Agile's talent and industry experience come from its 60 employees, including Bill Seifert, Agile's president and CEO. He helped write the specs for the original Ethernet local area networks that started the data networking industry in 1981. He also co-founded one of Bay Networks' predecessor companies — Wellfleet Communications. Today, BCS has a technology exchange alliance with Bay Networks and resells its equipment.

Exhilarated with the opportunity to "stand on the very broad shoulders of Lucent and BCS," Seifert is most anxious to begin working with us. "In five to 10 years, users will want networks, including the Internet and corporate data networks, to be merged with voice operations simply because of cost. And when they do, they will insist on data networks being as reliable as the public switched voice network that Lucent built. But we're not going to wait for that to happen; we're working on those issues today."

What does all this mean for customers? "A better chance of realizing tighter integration for applications that integrate voice and data," said Seifert. Not to mention the future economic benefits of having one network instead of two to support and buy equipment for.

Putting It All Together

Agile's products — including closet and backbone switches — accelerate our capabilities in integrated Ethernet/ATM technologies. (Closet switches connect desktops to the backbone, while backbone switches gather and direct traffic from every closet switch on the LANs in a building or campus.) Agile's industry-leading VLAN (virtual local area network) software automatically reconfigures networks for additions, moves or changes — and saves customers up to 80 percent on those network administration costs.

BCS plans to sell these products through direct and indirect channels in the United States, and to find the right mix between BCS' direct and indirect operations overseas and Agile's distributors in Japan, United Kingdom, Germany and Switzerland.

BCS also intends to introduce enterprise switch products of its own. These switches will work with Agile's current and future products to provide a complete solution for business customers' premises. BCS will integrate real-time voice and video capabilities into those new products — to deliver highly reliable, self-configuring multimedia networks.

To ensure our multimedia future for business customers, all the pieces are coming together, Pavarini said. "Some things we can do ourselves or with other business units. Some things we shouldn't do ourselves, like developing the core competencies that Agile already has. And some key technologies we didn't have, so we set up a technology exchange with Bay Networks," he said. "We're putting together all the pieces to make it happen." ○ -Shirley Chan

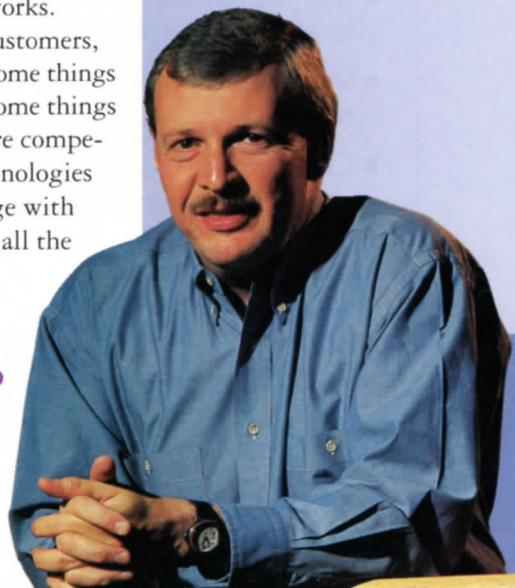
Agile's talent and industry experience come from its 60 employees, including Bill Seifert, Agile's president and CEO.

For more information on Agile Networks and its products, visit the Web site:
<http://www.agile.com>

A Multimedia Pioneer

Prior to founding Agile Networks, Bill Seifert invented the modern multi-protocol router (controls the movement of data from one network to another). He was a co-founder of Wellfleet Communications (now Bay Networks) in 1986 and served as its vice president and chief technical officer.

An internationally recognized expert in local area networking and inter-networking, Seifert also was a founder of Interlan, a pioneer in Ethernet local area networking, in 1981. Prior to that, he held technical and systems engineering positions at Digital Equipment Corp. and Los Alamos National Laboratories. He holds a bachelor and master of science in electrical engineering from Michigan State University.



BUCK FRIEDMAN

What A Year

Lucent People Create the *Opportunity of a Lifetime*

From a no-name company to lighting up Wall Street — what a year it's been for us. Since AT&T announced it was spinning off Bell Labs and its systems and technology businesses, the people of this company have continued to meet and exceed customer expectations, grow the business and create an identity as Lucent Technologies that's recognized and respected around the world.

We've also taken the steps necessary to make this a healthy company focused on our strategic goals. We closed the Phone Center Stores, we sold Paradyne and our plant in Richmond, Va., and we outsourced much of our day-to-day computer processing and information applications work. We have reduced our workforce to meet our workforce objectives. None of these decisions were easy, but they are allowing us to focus on our strengths.

We've moved to take advantage of our new status as an independent company free of strategic conflicts with our large customers. New doors have opened with sales to such companies as Sprint, WinStar Telecommunications, MCI, NextWave Telecom, Frontier Corp., ICG, Cox California PCS, Clearnet and Deutsche Telekom Mobilnet. And old doors to the Bell companies have opened wider.

Our industry is huge and growing. We bring with us enormous experience with all types of customers and a wide range of technologies, and we're focused on innovating for the future. We're in the hottest areas of the huge and growing global communications industry. We truly have the opportunity of a lifetime.

1996 Milestones

- Announced more than 600 contracts with a total value in excess of \$7 billion.
- Received an average of more than three patents per business day since March.
- Completed the largest initial public stock offering in history, raising \$3 billion.
- Expanded offerings in our core markets with more than 30 product enhancements, including new Bell Labs ventures such as *Inferno* and *elemedia*, expanded internet offerings, and the fastest DSP chip for the wireless market.
- Started new initiatives in our key growth markets — multimedia broadband, wireless, networking software and microelectronics.
- Focused on selective international growth by purchasing PKI and TRT for an increased presence in Germany and France. We've made significant sales to countries in Europe, Asia and South America.
- Granted options on 100 shares of Lucent stock to employees worldwide.
- Showed a commitment to our communities by holding our first annual Global Day of Caring.
- Created a set of values to guide our business — how we treat each other and our customers.

1995

SEPTEMBER 20, 1995
Announcement of AT&T restructuring.

FEBRUARY 1, 1996
First major sale to Sprint PCS of \$1.8 billion in wireless equipment.

Lucent Technologies
Bell Labs Innovations

FEBRUARY 5, 1996
Announcement of Lucent Technologies name, logo and Board of Directors.



MICHAEL GAFFNEY

OCTOBER 12, 1995
Henry Schacht named chairman and CEO and Rich McGinn named president and COO of new systems and technology company.



MICHAEL GAFFNEY

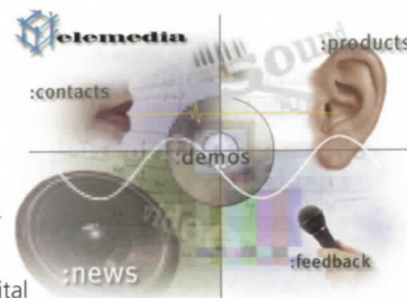
APRIL 4, 1996
First trading of Lucent stock on the New York Stock Exchange.

APRIL 24, 1996
First quarter results post 10.1 percent revenue gain.

MAY 29, 1996
AT&T Wireless Services purchases digital cellular telephones valued at \$300 million.

JULY 1996
Lucent provides communications systems to Bell South for Olympic Games.

AUGUST 1996
Lucent provides communications services to U.S. national political conventions.



SEPTEMBER 12, 1996
Introduction of world's fastest digital signal processor (DSP) chip.

SEPTEMBER 17, 1996
Announcement of *elemedia* software for improving the quality of voices, music and video sent over the Internet.

SEPTEMBER 30, 1996
Distribution of Lucent shares to AT&T shareholders, completing spinoff of new company.

OCTOBER 1, 1996
First business day for Lucent Technologies as a totally independent company.

OCTOBER 8, 1996
Purchase of Agile Networks improves Lucent's ability to manage multimedia networks efficiently.

DECEMBER 30, 1996
First Lucent Annual Report is mailed to shareholders.



MICHAEL GAFFNEY

1996

Lucent's

Leadersh



Executive Council



Foreground: **Rich McGinn** (left), president and chief operating officer; **Henry Schacht** (right), chairman and chief executive officer.

Second row (left to right): **Pat Russo**, executive vice president, chief staff officer and president of Business Communications Systems (interim until a replacement is announced); **Bill Marx**, senior executive vice president (retired); **Curt Crawford**, president, Microelectronics Group; **Dan Stanzione**, president, Network Systems and Bell Labs; **Don Peterson**, executive vice president and chief financial officer.

Third row (left to right): **Tom Uhlman**, senior vice president, Corporate Strategy, Development and Public Affairs; **Joe Colson**, Network Systems president, AT&T Customer Business Unit; **Carly Fiorina**, president, Consumer Products; **Arun Netravali**, vice president, Research; **Curt Artis**, senior vice president, Human Resources.

Back row (left to right): **Bill O'Shea**, Network Systems president, International Regions and Professional Services; **Jim Brewington**, Network Systems president, Product Realization; **Homa Firouztash**, former acting president, Consumer Products, now vice president and general manager, Global Wired Products; **Gerry Butters**, Network Systems president, North American Customer Business Unit; **Kathy Fitzgerald**, senior vice president, Public Relations and Investor Relations; **Rich Rawson**, senior vice president and general counsel.

GLORIA BAKER

Strong

Earnings Performance

1996

Financial Highlights

Lucent Technologies Inc. and Subsidiaries
(dollars in millions)

	nine-months ended	
	Sept. 30, 1996	Sept. 30, 1995
Operations:		
Revenues	\$15,859	\$13,986
Gross margin	6,569	6,143
Net Income	224	150
Financial position:		
Total assets	\$22,626	\$18,219
Working capital	2,068	188
Other Information:		
Capital expenditures	\$ 939	\$ 784
Gross margin percentage	41.4%	43.9%

Lucent's performance
in 1996 reflects its
strong position in a
number of rapidly
growing markets
and provides a solid
foundation on which
to build future
shareowner value.

In July, Lucent's Board of Directors voted to change the company's fiscal accounting year to begin Oct. 1. Because of this change, Lucent's Annual Report focuses on our results through the first nine months of 1996, ending Sept. 30.

The Lucent Annual Report, available Dec. 30, reports that net income for our first nine months of operation — through Sept. 30, 1996 — was \$224 million, or 35 cents a share. That compares with net income of \$150 million, or 24 cents a share, during the first nine months of 1995. Our total revenues for the 12 months ending Sept. 30, 1996, grew to more than \$23 billion — almost \$3 billion more than during the 12 months ending Sept. 30, 1995.

Here's how our operating units fared in the nine months ending Sept. 30, compared with the comparable 1995 period: Network Systems' revenues grew 24.9 percent. Higher sales of switching, transmission, fiber-optic products and services — such as engineering, installation and maintenance — accounted for most of the growth. Sales of software, a vital and growing market, accounted for 10.4 percent of these revenues. Sales of wireless infrastructure grew 5.4 percent over the 1995 level. Sales outside the United States accounted for 24.8 percent of this unit's revenue during the period. That's an increase of nearly 30 percent.

Microelectronics Group's sales rose by 23.7 percent during the first nine months of 1996. Domestic sales increased by 29.7 percent, international revenues grew by 23

percent. These results were realized by focusing on rapidly growing markets, such as the digital signal processor chips used in modems and cellular phones.

Business Communications Systems saw increased sales of \$273 million — or 7.4 percent. Sales outside the United States grew by nearly 25 percent.

Consumer Products had an expected decline in revenues as a result of closing the Phone Center Stores, discontinuing unprofitable product lines and decreased rental revenue. Consumer Products is revamping its product lines by bringing manufacturing in-house and re-engineering some key business processes. Led by advances in digital cellular phones and answering system technology, Consumer Products is working to make this a profitable business.

To reduce costs, we restructured parts of our operations, including outsourcing some of our information systems functions and selling Paradyne and Richmond Interconnections Technologies. As a result, despite expenses associated with launching our new company, our sales, general and administrative costs increased just over 5 percent year over year.

In Lucent's Annual Report, Henry Schacht, chairman and CEO, and Rich McGinn, president and COO, said in a letter to shareowners: "On a personal note, both of us have been traveling to company locations around the world, meeting with thousands of Lucent people. We've seen first-hand how excited they are to be part of this new company. We've seen a new spirit in the people of Lucent. They truly believe, as we do, that we have before us 'the opportunity of a lifetime.' All of us intend to make the most of it." ○

MWBE:

A Winning Strategy

For Customers, Suppliers

And Lucent

"We're satisfying our customers and meeting our business needs. We're also recognizing marketplace diversity and promoting business growth."

The Minority and Women Owned Business Enterprise (MWBE) development initiative at Lucent Technologies is about much more than doing the right thing to support diversity. It's also about sales, competitive advantage and customer satisfaction.

Since 1987, the number of minority- and women-owned businesses has grown an average of 60 percent compared with 22 percent for the business market as a whole. Lucent's MWBE initiative helps us tap the talents and abilities of this new pool of suppliers. It also builds relationships with a growth market of potential customers for our products and services.

In addition, our customers are themselves looking for help with their MWBE goals and look to major suppliers like Lucent to partner with MWBE suppliers. In 1995, Lucent's alliances with MWBE suppliers helped us close several big sales and led to more than \$50 million in additional sales that we would not otherwise have won.

For example, Network Systems uses MWBE suppliers, value added resellers (VARs) and distributors for many of

During a ceremony at the White House, U.S. Vice President Al Gore presented the 1996 Distinguished Corporate Award to Dan Carroll, formerly chief procurement officer for AT&T, and now vice president, Large Business Markets and Global Provisioning for Lucent's Business Communications Systems, to recognize MWBE purchasing.

the products and services it provides to major customers. Southwestern Bell and Network Systems awarded a Native American supplier, Cherokee Nation Industries, a major contract to provide fiber-optic cable, and Pacific Bell and Network Systems awarded an African-American supplier, Telpro Technologies, a contract to provide engineering and installation services.

Recently, Network Systems and BellSouth together, under a five-year, multimillion-dollar contract, selected an African-American firm, Washington Cable Supply, for the warehousing and distribution of copper station wire.

"Many of our customers require that we provide MWBE participation in their purchases from us," said Walt Gibbons, Network Systems Business Development vice president. "As a result, we're satisfying our customers and meeting our business needs. We're also recognizing marketplace diversity and promoting business growth."

In 1996, Lucent is expected to purchase \$750 million from 2,500 minority- and women-owned businesses. "Lucent's minority purchasing program goes back almost three decades and began at Western Electric," said Ed Tracy, global procurement vice president. "In its first year, purchases totaled \$175,000 from nine minority suppliers and our commitment has been growing ever since. In 1995, the combined programs of Lucent, AT&T and NCR did over \$1.5 billion in business with 3,600 MWBE suppliers nationwide." **—Paula Horii**

Beverly and Bill Parker, owners of Washington Cable Supply, won a five-year multimillion-dollar contract to warehouse and distribute copper station wire for Network Systems and BellSouth.



an obsession with
customers

Teamwork Keeps Wireless Customers Talking

"In less than four hours, service to more than 50,000 customers would come to a complete halt."

Working in the dark to keep a switch from crashing were Network Systems' team members: from left, seated, Kamarul Zamani, GSM system engineer; Scott Cymber, GSM project coordinator; Rohasza Anuar Hassan, GSM technician. From left (standing): Ken Ham, wireless services director-Southeast Asia; Ken Mann, technical support manager-GSM; Ronald Kudron, senior communications services technician.



A nationwide blackout in Malaysia let some of Lucent's Network Systems stars shine during one of the country's worst blackouts. Under a cloak of darkness and temperatures that surpassed 100 degrees (about 38 degrees Celsius), six Network Systems team members raced against the clock to prevent the crashing of a switch and supporting equipment for Celcom, Malaysia's largest wireless services provider.

On Saturday, Aug. 3, at 5 p.m., Malaysia lost all electrical power. Ken Ham, wireless services director, and other members of the team had their dinner plans interrupted by a call from Lucent's Scott Cymber, project coordinator, alerting everyone that Celcom's switch was in jeopardy and no backup generator was on site.

Within minutes, Ham and the wireless team were at Celcom's Penang office. With candles and flashlights in hand, Ham, Ken Mann, technical support manager; Kamarul Zamani, system engineer; and Ron Kudron, senior communications services technician; checked on the 5ESS switch and supporting equipment. They found that the batteries for the switch were extremely low. In less than four hours, service to more than 50,000 customers would come to a complete halt. Unfortunately, no schematics could be found in the dark, so Kudron traced with his hands the location of fuses and cable lines to methodically reduce power on all non-essential equipment to preserve power for the switch.

Meanwhile, Mann, who was visiting from Kuala Lumpur and had updated a switch earlier in the day, worked to keep the mobile switching center operational. And Cymber worked with Celcom employees to find a generator that could be used for backup power. A generator was found, but the fuel system was contaminated by water condensation. Cymber and the group finally were able to get the water out and recharge the batteries before the generator quit.

Working well into the next morning, the team, which now included Rohasza Anuar Hassan, monitored the switch and equipment, devising more contingency plans to keep the batteries charged. Finally, around 8 a.m. Sunday, most of the country's power was restored. Not wanting to take any chances, members of the team continued to monitor the equipment.

"We were all exhausted, but your adrenaline takes over. We were all trying to make sure the system didn't fail," said Ham. "What made me feel good was no one stood around and waited to be told to react to the situation. There was very good teamwork. It was an outstanding effort and Celcom really appreciated everything we did."

Anwar Yusoff, Celcom's deputy general manager, sent the team a thank-you letter expressing his gratitude for their work during the emergency, calling the Lucent group "heroes." ● -Robyn Roberts

... the *Opportunity* of a lifetime !



Chairman and CEO Henry Schacht, and President and COO Rich McGinn discussed Lucent's prospects with retired executives at a luncheon. Those attending included former Western Electric President Don Procknow (left) and former Network Systems President Wayne Weeks (second from right).

Retired Execs See Lucent in a New Light

Seventy-five retired Lucent Technologies executives came to lunch at corporate headquarters in Murray Hill, N.J., recently, expecting to see old friends and former colleagues, and to hear Henry Schacht and Rich McGinn talk about Lucent Technologies. Two hours and several mini-reunions later, they found themselves caught up in the excitement of being part of a brand new company — a company they had helped to build.

"The enthusiasm here is excellent," said Wayne Weeks, a former president of Network Systems. "There's a feeling that there are no barriers. Lucent's fate is entirely in its own hands."

Schacht, chairman and CEO, and McGinn, president and COO, invited the retired executives in the New Jersey/Connecticut/New York area to the luncheon to give them an inside view of the new company. The retirees watched video clips highlighting the year's events. Many nodded in agreement as Schacht talked about Lucent's strategy and "opportunity of a lifetime." They listened closely as McGinn highlighted Lucent's operating units and customer base.

"We're building on your accomplishments. We wouldn't be where we are if you hadn't done the work," said McGinn.

After the event, Mo Iwama, former Bell Labs executive director, said goodbye to friends in front of a special exhibit set up for the event. The exhibit highlighted more than 100 years of Lucent's communications heritage — from Elijah Gray's 1869 telegraph to a computer demonstration of text-to-speech software.

"We get pieces of the picture from the external media. But it's nice to see the whole picture," said Iwama. "All of us are proud of this new company." ● -Ollie Hartsfield

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Celebrating 85 Years Of Pioneering

Lucent Pioneers across the country celebrated with a week of activities to commemorate the very first Pioneer meeting, which took place in Boston on Nov. 2 and 3, 1911.

During Pioneer Week, from Oct. 26 to Nov. 2, Lucent Pioneers raised awareness of their organization by displaying exhibits, highlighting community service projects and fund-raising.



Pioneers at the Guilford Center in Greensboro, N.C., made teddy bears for a special Hug-A-Bear Sunday as part of the Pioneer Week celebration. These bears were destined for Brenner Children's Hospital in Winston-Salem, N.C., and other emergency service organizations. Pioneers making the bears are (from left) Gwen Jones, Carl Cordovana, Marie Linnens, Mary Ellen Burke, Dee Brown and Wally Fonville.

The Telephone Pioneers of America are active and retired employee volunteers in the United States, Canada and Mexico from various telecommunications companies. With 850,000 members, the Pioneers make up the world's largest industry-related community service organization. Since 1911, Pioneers have lived by three values: fellowship to each other, loyalty to Pioneering and sponsoring companies, and service to their communities. They meet a variety of needs in their communities while placing a special emphasis on education, and they help brand their sponsoring companies as good corporate citizens. Dedicated Pioneers and their partners — spouses, designated family members or friends — donate an average of 30 million hours of volunteer time a year, and they raise approximately \$30 million a year to improve the quality of life in their communities.

"Pioneer Week celebrated the birth of pioneering and our desire to serve our communities," said **Dan Katze**, senior vice president of the Lucent New Frontier Chapter of Pioneers and a coordinator of Pioneer Week activities at his work location. "It was a benchmark of our spirit of service

and community caring. This year marked our 85th anniversary, and is a testament to the long-term support by our company and the dedication of our employees to that service." Katze is a senior engineer in Business Communications Systems in Denver. He has been an active Pioneer since 1972.

Hug-A-Bear Sunday ended the week-long celebration. On this day, Pioneers made Hug-A-Bears, which are home-made teddy bears, and distributed them to local police, fire and paramedic units to be used to help calm traumatized children. Some Hug-A-Bears also were delivered to homes for the elderly. The Pioneers also made Smart Bears, which are homemade teddy bears that come complete with a backpack and children's storybook. The Smart Bears are given to children who aren't exposed to reading in their homes.

○ -Noëlle Lusardi

Pioneers Start New Lucent Chapters

Because of restructuring, Lucent Technologies has become a separate sponsoring company of the Telephone Pioneers of America.

To join the Pioneers, call one of the new Lucent chapters below or the Pioneers hotline at 1-888-999-5877.



Pioneers like Keith Roach turned out in force to make Lucent's first Global Day of Caring a success. Roach and about 50 other employees from the Guilford Center in North Carolina painted and landscaped a house for an elderly couple.

Chapter	Phone	Geographic Territory
Northeast Chapter	508-960-2311	New England and New York
Penn-Jersey Chapter	1-800-704-6081	New Jersey, Pennsylvania, Delaware, Eastern Shore of Maryland, the West Virginia panhandle
Atlantic Coast Chapter	910-279-5460	Maryland, Washington, D.C., Virginia, West Virginia, North and South Carolina
Southern States Chapter	770-750-2558	Florida, Georgia, Mississippi, Alabama, Tennessee, southern Kentucky
Crossroads Chapter	630-224-6301	Indiana, Wisconsin, northern Kentucky, Michigan, Illinois, Minnesota, Ohio, Iowa
Southwest Chapter	214-284-2051	Kansas, Oklahoma, Texas, Louisiana, Arkansas, Missouri
New Frontier Chapter	510-815-8269	California, Washington, Oregon, Alaska, Hawaii, Nevada, Montana, Idaho, Utah, Arizona, New Mexico, Colorado, Wyoming, Nebraska, North and South Dakota

What Our First Year Meant to Me



Xina Quan, head of polymer and chemical engineering department, Bell Laboratories, Murray Hill, N.J.

"I understood the rationale for trivestiture. I remember thinking that Bell Labs would have a larger, more relevant role to play in the company. We have more mind share from upper management. I feel that now the lines of communication are more open. People in the old Bell System grew up with a lot of inertia. I sense a different attitude. Business units working together and with research is more acceptable. I feel encouraged by the way things are done and the questions that people are asking."



Patrick Little, business manager, educational services, Europe, Middle East, Africa, Network Systems, Nuremberg, Germany

"Even though we've had a year to get used to being a new company, we are still sometimes too preoccupied with ourselves. We need to get back to focusing on our customers and their customers. I'm confident about Lucent's success, but in order to excel in serving our customers, we need to make our processes visible within our organization, engineer or re-engineer them where necessary, and above all, live them day by day."



Betty Harris, production specialist, Microelectronics, Mesquite, Texas

"AT&T provided us with a security blanket of knowing we can go out and do something for the public. Early on, we had to guess about Lucent's commitment to the community. But I think the security blanket stays on; we have the Global Day of Caring, the United Way kickoff, and the Lucent Foundation. Put it this way, if Jesse Jackson were to come in to the front office, he'd say it looks like a rainbow of people."



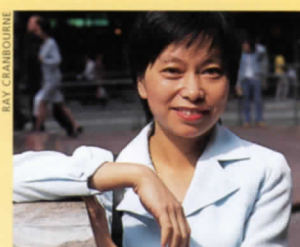
Alden Bradley, employee sales store manager, Consumer Products, Parsippany, N.J.

"I felt a sense of loneliness with the news of the trivestiture. When the company later said it would be closing the Phone Center stores, I understood why, but still felt angry that it had to happen. Now, CP is re-focused in a positive direction and has a new president (Carly Fiorina). We are working with other business units more often and more effectively. Being part of this new company is like going to a party; we're fostering new friendships and relationships."



Alicia Andino, administrative assistant, Human Resources, Caribbean/Latin America, Miami, Fla.

"I see the politics changing. Lucent is trying very hard to have continuous communication. Strategic partners are planning together, and they're involving the rest of the employees. Before, things were decided mostly by top management or else had been planned 100 years ago. Now, you see the creation of new things. People are telling us what they're working on and asking for feedback. Everybody's trying to make things better."



Flora Kam, sales incentive compensation plan manager, Business Communications Systems, Asia/Pacific, Hong Kong

"I've been with Lucent for 10 months. Because the company is new, I see a lot of energy. If you look at our revenues and growth, you see that people are achieving or over-achieving their goals — in every country in Asia/Pacific. We feel we must be successful, not anything less. Everyone, from top to bottom, wants to make it happen."



Jack Lane, account executive, Network Systems, Schaumburg, Ill.

"Before news on the trivestiture broke, I had been feeling continuous contention from my Ameritech customers about AT&T's role as a supplier and competitor. When AT&T got into local service, I would have seen everything — my relationship with my customer, my job, my compensation — go 'poof.' Then, they announced the spinoff. All of a sudden, I could see a future here again. The market is opening up for us all over the place."

