

July/August 2000

Lucent

m a g a z i n e

T H E N E W L U C E N T

Building the Broadband and Mobile Internet



**Avaya Spells
Opportunity**

**Launching
Microelectronics**



I N S I D E

European Markets Heat Up • Global Ads Signal New Focus

Dancing with the Dragon



What's 60 feet long, red, yellow and green, and takes 15 Lucent team members to control? A ceremonial Chinese dragon, of course. The Lucent Dragon Dance team performed a traditional New Year's dance inside Lucent's Holmdel, N.J., facility as part of the 4A (Asian/Pacific American Association for Advancement) celebration of Asian/Pacific American Heritage Month (AAHM) in May.

With over 10,000 employees in 14 countries in the Asia/Pacific region, and thousands more with Asian heritage around the world, 4A is working hard to bring the richness of Asian/Pacific culture to all of the diverse people of Lucent. "4A has continued to grow with Lucent," said Aridaman Jain, chair of the Public Relations Committee for AAHM. "We have worked to unite employees and show them what our heritage offers."

The Dragon Dance team consists of (from left) Jayanta Das, Danesh Nikoonezhad, Frank Galuppo, designer Liang Hwang, Michael Ding, Hsin-Hsin Ho, Bill Klinger, Shu-Cheng Lee, Kevin Humann, Sangeetha Venkataraman, captain Raj Varadarajan, Latha Chintala, Richard Chu, Shau-Ann Chang and Walt Shenk.

The Dragon Dance was part of "Beyond Borders," Holmdel's Asian cultural show. The show was coordinated by Deepali Jain and Vineeta Arora and included music and dance selections from Bangladesh, China, India and Korea.

For more information on 4A and the activities that it sponsors, visit <http://4a.web.lucent.com>.

—Patrick O'Mea

READERS' LETTERS

A People Magazine

I enjoyed the May issue of *Lucent Magazine*, particularly the article about our Environment, Health and Safety Heroes. It's always nice to read about Lucent's progress in the world of high-tech communications equipment, but I'm equally impressed with stories about Lucent's people.

Richard Winmill
Haverhill, Mass.

Good Update

The May issue of *Lucent Magazine* contained wonderful information on technology and the company's future. I particularly liked the articles about Services ("Services Set Lucent Apart") and about China ("Building a 21st Century China").

Barbara Cmiel
Yonkers, N.Y.

Go Team

We live in a culture that encourages independence and self-reliance, but giving our mind, talent, and energy to a team beats anything we can do by ourselves. Joining together with others multiplies our productivity, brings out the best

in us and raises our commitment level. We all belong to many teams. Wherever you're linked with others in pursuit of a shared goal or belief, there's your team.

Jed Schoucair
Mount Olive, N.J.

The Real World

In the letters section of the June 2000 issue of *Lucent Magazine*, Terry Poia thought the negative comments about technical omissions and safety issues in *Lucent Magazine* photos were not justified. Even though Terry stated correctly that the photos are staged, I feel that he missed the point of those comments. In the real world where I function, attention to detail in every aspect of our job is important. We all are responsible for technical accuracy, quality, security and safety. This attention to detail is what has made Lucent stand head and shoulders above our competitors. I am thankful that so many associates recognize such errors and comment on them.

Mike Brinson
Richmond, Va.



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for articles.

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S T O R Y

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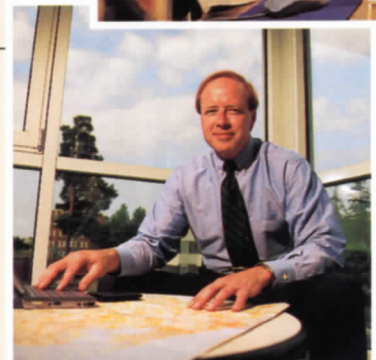
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FROM THE REVOLUTION

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The Heat Is On



ABOVE: MCCANN ERICSSON; LEFT: ROGER TULLY

At right, Lucent's country manager for Sweden, Hans Rundberg, was instrumental in a US\$350 million deal with Telia.

Cover photography by Ben Fink and Peter Vidor.

E-MAIL

FROM THE REVOLUTION

Spotlight on Oracle

To: Lucent Magazine
From: Service Provider Networks
Date: June 27, 2000

Delighting customers is a key to success in every business — including the eBusiness of communications service providers.

To do just that, Lucent and Oracle Corp., the largest provider of software for eBiz, have agreed to

ORACLE

jointly develop and market the industry's most comprehensive customer relationship management billing software solution.

The solution will enhance critical billing and customer care data for telecommunications,

Internet, eCommerce and energy service providers worldwide using Lucent's Kenan Arbor/BP billing product and Oracle's E-Business Suite.

"Sophisticated business and operational software can be a key differentiator," commented Rich McGinn, Lucent chairman and CEO. "The Oracle/Lucent relationship will provide the environment and structure to deliver the enhanced value that creates a competitive advantage for service providers."

3.6 Million Reasons

To: Lucent Magazine
From: Network Products Group
Date: June 6, 2000

3.6 million miles of fiber isn't easy to come across. That is, unless you have a partner like Lucent.

For that reason, Metromedia Fiber Network (MFN) has signed a \$330 million contract with Lucent to provide our *AllWave* and *TrueWave* RS fiber to help them build an international network in 67 key American and European markets by 2004. This agreement stands to make MFN Lucent's biggest *AllWave* customer to date.

"Our *AllWave* and *TrueWave* RS fiber assure MFN that the infrastructure they install not only will meet today's transmission needs more efficiently, but also will support tomorrow's applications and bandwidth

requirements," said Denys Gounot, president of Lucent's Optical Fiber Systems business.



Great Things on the Verizon

To: Lucent Magazine
From: Wireless Networks Group
Date: June 15, 2000

Verizon Wireless recently signed a letter of intent under which Lucent will help the new joint venture create a footprint in the United States that will rival the legend of Big Foot.

The deal names Lucent as the primary supplier of Verizon's third-generation (3G) wireless infrastructure. It will enable Verizon Wireless, the largest wireless service provider in the United States — recently formed by the merged companies of Bell Atlantic Mobile,



Airtouch Cellular, PrimeCo Personal Communications and Airtouch Paging — to increase its coverage and capacity in key markets and to offer advanced Internet, data and voice services to business and residential customers. The agreement taps Lucent's broad range of wireless products and systems designed to increase capacity and support high-speed data and mobile Internet applications.

"Lucent has been at our side as we pioneered reliable and cost-effective CDMA service in both our cellular and PCS networks," said Richard Lynch, executive vice president and CTO of Verizon Wireless. "Now that we are serving 96 of the top 100 U.S. markets, we expect to leverage our combined resources to build the nation's best 3G voice and data network."

Big Win in Brazil

To: Lucent Magazine
From: Lucent Brazil
Date: July 31, 2000

Lucent recently announced a \$300 million agreement with Telemar—the leading fixed wireline service provider in northeastern Brazil—to supply a variety of products and services through the year 2002.

The contract calls for Lucent to provide next-generation network solutions, wireless local-loop systems, professional services and other products through the year 2002.

This major agreement extends Lucent's relationship with Telemar and is in addition to an earlier contract with Telemar that will expand coverage to more than 100 small towns previously without phone service.

"We are very happy to continue to be an important part of Telemar's networking solutions and to provide its customers with advanced technologies," said Renato Furtado (above), president of Lucent Brazil.



A Positive Reflection

To: Lucent Magazine
From: Bell Labs
Date: June 12, 2000

Mirror, mirror on the Net, who's the fairest at content yet?

Lucent and Mirror Image Internet—that's who. Mirror Image Internet, an innovative leader in Internet content delivery services and Lucent's new



Internet Content Delivery and Distribution (iCDD) business are forming a strategic alliance to develop and market technology to dramatically improve the way content is delivered over the

Internet. Together, they will develop ways to distribute Internet content faster and more efficiently, making the Internet both more useful and easier to use.

"By pooling the resources of Bell Labs with cutting-edge technology development at Mirror Image, we are jointly creating the next generation of Internet content delivery and distribution technology," said Arun Netravali, president of Lucent's Bell Labs.

A Sharper Focus for

This summer, on the eve of the largest network expansion the world has ever seen, Lucent has swiftly unveiled a series of complex and strategically vital decisions aimed at creating a laser-sharp focus for each of its component businesses and transforming itself as never before. And the work has just begun.

In announcing plans to unleash the potential of our Enterprise Networks and Microelectronics Groups as separate companies (see related articles on pages 7 and 9), we also are giving shape and substance to a new Lucent, a fierce competitor whose sights are set on the hottest market in communications—broadband and mobile Internet infrastructure.

In just the next three years, nearly \$1 trillion will be spent revamping and building the next generation of

Financial Officer Debby Hopkins has set in motion (see related story, opposite page) to improve processes and make it easier for customers to do business with us, will be focused on this goal. By combining a clearer focus and revamped processes with Lucent's many strengths—especially its triple play of optical, data and wireless solutions, supported

wireless, for example, we're helping customers bring wireless mobility and the Internet together. They're merging wireless and Internet services into combined offerings, which businesses and consumers alike will soon rely on. This means wireless networks must be rapidly expanded to take advantage of the demand.

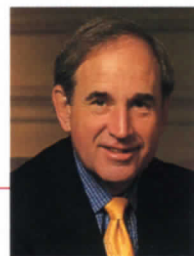
Also in the works from Lucent is an open software platform that will enable application developers to create a stream of revenue-generating applications for the mobile Internet—products that service providers can offer their customers.

We're tackling other emerging Internet technologies as well, partnering with industry leaders like IBM, EMC and Sun Microsystems to serve cybercarriers. These new businesses build sophisticated network data centers, offering Web hosting, storage, eCommerce and hosted applications. There are 600 centers today, with that number expected to grow to 1,900 by 2002—an increase of more than 200 percent.

Better than half of the cyber-carrier opportunity is demand for network design and consulting services—an area in which Lucent

"Focusing the new Lucent on broadband and mobile Internet will help us regain our momentum."

Rich McGinn • chairman and CEO



Internet networks. They'll be broadband, mobile, reliable and moving at the speed of light. And the new Lucent will be prepared to seize the opportunity. Every aspect of the business, not least the Finance initiatives that Chief

by professional services and software—the new Lucent can make its mark.

Spreading Our Net

Broadband and mobile Internet are already a focus in many areas of Lucent's business.

In third-generation (3G)

offers the largest and most experienced team in the industry. Over the next three years, cybercarriers are expected to spend more than \$130 billion on both services and infrastructure.

We're also adding what we need to succeed in this new market. Last month, in order to bolster our

the New Lucent

offering in Internet protocol communications services, we announced a plan to acquire Spring Tide Networks Inc., a leader among companies that help providers offer profitable services over newer, higher-capacity networks, whether landline, wireless, or cable broadband links.

We've also created a new

business unit to address Internet content delivery and distribution. The unit will improve users' Internet experience by deploying better storage, caching, delivery, video and graphics capabilities for content. It will work with Mirror Image Internet Inc., a Massachusetts-based company

providing content distribution services that speed Internet traffic and improve quality of service for Internet service providers and eBusinesses.

Bandwidth, Bandwidth, Bandwidth
If there's any doubt about the demand for bandwidth, consider

Hopkins Helps Chart a New Course for Lucent

Debby Hopkins, Lucent's new chief financial officer (CFO), is upbeat and poised for change. Hopkins, who joined the company in June after serving as senior vice president and CFO of Boeing, exudes fresh ideas, a roll-up-your-sleeves enthusiasm, and she's geared up to pilot Lucent on a course of steady growth.

Since flying into Lucent a couple of months ago, she's teamed up with Rich McGinn and met at length with Wall Street analysts to gain their perspective on Lucent while discussing plans for the year ahead. "My job is to make it easy to pick Lucent as an investment," said Hopkins. "To do that, we need to seize the opportunity to redefine the company."

Blending a no-nonsense attitude and a sharp wit, Hopkins welcomes a good challenge. During her tenure with Boeing and other companies, she's confidently navigated companies through some turbulent times.

"With tremendously talented people in Lucent, we have a profound opportunity to enable growth for the business," Hopkins said at a recent broadcast to Lucent's global Finance community. "And the CFO team should be out in front to create a new path for the company."

A Change in Guidance

Hopkins demonstrated her leadership during Lucent's third-quarter earnings announcement. While there was positive news about strong revenue growth in data networking, wireless and services, Hopkins felt that Lucent needed to temper expectations for the quarters immediately ahead.

"We decided it was very important to reduce the volatility of the business and develop linearity in the quarter," she said. "In effect, we needed to reset targets

that are aggressive, yet reasonable enough to let us balance the business for future growth."

To that end, she stressed that the spinoffs of Avaya and Microelectronics were pivotal moves, unlocking the value of two hot businesses.



ROGER TULLY

Debby Hopkins
executive vice president and
chief financial officer

As Lucent gears up to create two new companies, both Hopkins and McGinn promised investor analysts that we'd be back at the end of September to give them a new business model for 2001—one that lets us track our progress and provides predictable results for the company.

A Balanced Scorecard

With a focus on the new Lucent, Hopkins emphasized that redefinition starts with a discipline that underlies everything we do—a balanced scorecard where we create metrics for success and constantly check the temperature of the business. Examples include customer satisfaction, material

cost reduction and revenue per employee.

One of the key challenges Hopkins sees the new Lucent tackling involves streamlining burdensome processes that are not customer-friendly—such as quote-to-cash, sourcing, supply chain management, forecasting and order fulfillment. All will be redesigned, starting with the customer moving back, with fewer handoffs wherever possible, and will be handled with Web-based technology to make it easier for customers to do business with Lucent.

While Hopkins knows that the challenges of redefining the company are big, she's confident that the rewards are great. "Quite often, I'm reminded that strength and effectiveness have two major enemies—fear and anger. True power lies in letting go of both. We need to do that for Lucent to really take off." Spoken like a true pilot.

— Loren Talley

Streamlined Structure Sharpens Our Focus

Casting a laser-like focus on the business, Lucent recently announced a number of changes designed to rapidly realign its corporate structure and key operating units.

Lucent's new, more focused model is fundamentally changing and compressing the structure of the Service Provider Networks (SPN) and corporate organizations, which will be combined. And the Optical Networking Group (ONG) has split into two customer-focused operating units: one focused on core networking and the other on metropolitan access. The metro group will become part of the InterNetworking Systems unit (INS).

In addition, Chairman and CEO Rich McGinn announced that he has begun a search for a chief operating officer of Lucent Technologies.

New Optical Focus

As corporate and SPN unite, Lucent's Optical Networking Group separates into two more focused teams, each with new presidents who will bring a spirit of entrepreneurial leadership. The reorganization promises to speed development and boost revenue growth across both businesses.

Jeong Kim, who formerly led Yurie Systems and is chief operating officer of ONG, becomes group president of the Optical Networking business. Bob Barron, previously head of start-up Chromatis Networks, becomes president of the Metropolitan Optical Networking business, which will join INS. Barron will work with Janet Davidson, group president of INS, to unify Lucent's broadband access, Internet gear and metro product offerings. This will bring the combined benefits of both data and optical capabilities to the metropolitan networking arena—the fastest growing part of the optical space.

"Jeong Kim and Bob Barron bring considerable experience in optical and data networking to their new positions, as well as extensive experience in working with emerging service providers," said McGinn. "Our goal is to leverage the entrepreneurial and technical talents we've gained through acquisitions to drive more speed into our development and delivery processes." The change in Lucent's optical business coincides with Group President Harry Bosco's announced plans to retire after 35 years with the company.

Adding his perspective to the major changes across the business, McGinn summed it up: "We have a huge opportunity awaiting us. And we have the strengths to seize that opportunity."

—Loren Talley

ROGER TULLY



Two thirds of Lucent's triple play is a powerful combination of optical and data networking technology. Examples include our industry-leading GX550 Multiservice WAN Switch, as demonstrated by (above, from left) Chris Staszak, Mike Sullivan and Paul Crann of InterNetworking Systems; and the WaveStar LambdaRouter (left), represented by Jim Dunleavy of the Optical Networking Group.

be a 30 percent owner in TeraBeam Internet Systems, a new enterprise the companies will create.

Looking Forward

Lucent's broadband and mobile Internet businesses will provide revenues to replace what our maturing businesses once contributed. Sales of Internet infrastructure and services are expected to account for about 60 percent of Lucent's growth in 2000 and more in 2001, up from 50 percent in 1999.

"Our optical, data networking, wireless and professional services businesses all have grown as fast as or faster than the high-growth markets they compete in," said Lucent Chairman and CEO Rich McGinn. "Next year, we expect wireless, data networking and optical each to be larger than our circuit switching business.

"The fundamentals of our business are solid, the market is strong and there is tremendous customer acceptance of our products and services," he said. "Focusing the new Lucent on broadband and mobile Internet will help us regain our momentum." ○

—Suzanne Sidhu

this: By the end of this year, 10 million miles of new optical fiber will have been installed in just two years. That's enough to circle the globe 400 times.

Some of that new fiber will head toward metropolitan areas to answer the cry for fiber to the desktop. With the acquisition of Chromatis Networks, we've tapped the fastest growing segment of the industry—metropolitan networks. A leader in its field, Chromatis has created the first single system to integrate voice, video and data traffic on a metro network.

And, our partnership with TeraBeam is smashing the "first mile" bottleneck—where data is slowed when carried between local and wide area networks. TeraBeam's Fiberless Optical Network system provides over-the-air technology for high-speed data networking between local area networks (LANs) and wide area networks (WANs). And Lucent will

Launching a New Microelectronics

Its employees cheered when the announcement was made last month that Lucent's mighty Microelectronics Group—the world leader in communications semiconductors—would become a separate company.

The move should benefit stakeholders. Shareowners can make a “pure play” based on the

Lucent, that was often the case. “This new company will be able to accelerate its growth now that it's free from this strategic conflict,” said Lucent Chairman and CEO Rich McGinn. “The move will also unleash shareholder value of the business, whose success will now be more fully recognized outside of

market—the \$42 billion communications sector, which Dataquest projects will grow to \$89 billion by 2004. Over the last 18 months, Microelectronics has invested about



Lucent Chairman and CEO Rich McGinn congratulates John Dickson, president and CEO-designate of the new company. Originating from Allentown, Pa. (left), an all-employee broadcast reached 300 sites around the world.

BEN FINK AND PETER VIDOR



dynamics and opportunities of a single market, and employees will have clearer direction, with fewer internal conflicts and layers of management.

Most important for Micro, it will eliminate strategic conflicts that occur when its customers are Lucent's competitors. With more than 75 percent of its sales coming from companies outside

microelectronics group

Lucent Technologies
Bell Labs Innovations



Lucent's larger communications networking systems business.”

A Worldwide Leader

The new company is the leader in one of the fastest growing pieces of the worldwide component

\$1 billion in expanding manufacturing capability and almost \$4 billion in acquisitions to keep pace with industry demand.

In addition, the company will become the only major, stand-alone semiconductor business with leadership in both optoelectronic components and integrated circuits. As companies move to converge electrical and optical technologies, this dual expertise will uniquely position this new enterprise. It will compete with optoelectronics companies such as JDS Uniphase and integrated circuits companies such as Texas Instruments, Broadcom and ST Microelectronics.

From Day One it will lead the

ME at a Glance

Employees

Approximately 16,000 worldwide

Locations

- Central campus in Lehigh Valley, Pa., and 105 offices worldwide
- Regional offices in Santa Clara, Calif.; Ascot, England; Tokyo

Portfolio

- Integrated circuits (ICs) for wireless and wired communications, computer modems and networks
- Optoelectronic components for communications systems
- Wireless broadband networking solutions from the Wireless Communications and Networking Division (WCND)

Acquisitions

- Optimay, a global systems for mobile communications software company based in Munich, Germany
- Ortel, an Alhambra, Calif.-based optoelectronic components supplier for cable TV networks
- Agere, an Austin, Tex.-based provider of high-speed chips for packet-based networks
- VTC, a Bloomington, Minn.-based semiconductor components provider for PC hard-drive disk manufacturers
- Herrmann Technology, a Dallas-based optical component company

Major Customers

- For ICs: Lucent, Apple, Compaq, 3Com, Motorola, Sun Microsystems, Seagate, Quantum and ST Microelectronics
- For optoelectronics: Lucent, Siemens, LGIC and Tyco Submarine Systems
- For WCND: Avaya, Apple, Sony, IBM and Hewlett-Packard

Key Competitors

- For ICs: Texas Instruments, ADM, Broadcom, LSI Logic and ST Microelectronics
- For optoelectronics: JDS Uniphase, Nortel, Fujitsu and Hewlett-Packard
- For WCND: Cisco, Intersil and Intel

—Linda Crockett and Patrick O'Mea

market in several key areas, ranking No. 1 in digital signal processors (DSPs) for wireless network infrastructure, integrated circuits (ICs) for SONET and SDH optical networking systems, wired communications ICs, modem ICs for laptop computers, as well as being a leader in system-on-a-chip solutions. It also will lead the optoelectronics industry in manufacturing automation, modulators for 10- and 40-gigabit-a-second

sion of the Ortel manufacturing operations in Southern California. "No semiconductor company can match our end-to-end capability, or our leadership in communications segments from wired to wireless, voice to data, or copper to optical transport," said John Dickson, formerly EVP and CEO of Lucent's Microelectronics and Communications Technologies, now the new company's president and CEO-

designate. "The new company becomes a pure play for communications semiconductors—a market growing greater than 20 percent."

Microelectronics' customer list includes virtually every major network equipment manufacturer worldwide, and nine of the top

10 PC manufacturers. Lucent will continue to be a significant customer. So will many companies outside

the United States, which provide almost half of its business.

With its central campus in Lehigh Valley, Pa., it will employ about 16,000 people in 105 locations worldwide, including major research and development and manufacturing facilities in Allentown, Reading and Breinigsville, Pa.; Orlando, Fla.; Alhambra, Calif.; Tres Cantos, Spain; Bangkok, Thailand; Matamoros, Mexico; and Singapore.

"We have a dedicated team of people, from our world-class R&D and manufacturing to sales and product management," Dickson said. "A fabulous opportunity lies ahead and, thanks to the team's hard work, this new company is well-positioned to grow its leadership." ○

—Suzanne Sidhu



John Dickson told employees that the new microelectronics company will begin life as the world's leading provider of communications semiconductors.

optical networking systems, submarine optoelectronics and a variety of lasers used in communications applications. And through its Wireless Communications and Networking Division (WCND), it also will lead the market in wireless broadband networking solutions.

A Booming Business

The new company's optoelectronics components business has been booming, growing more than 80 percent—twice the industry rate—over the last 12 months.

Microelectronics recently expanded its automated optoelectronics manufacturing facilities in Breinigsville, Pa., quadrupling capacity by year-end. In April, the company completed its acquisition of Ortel, an optoelectronics component supplier for cable modem manufacturers, and recently announced an expan-

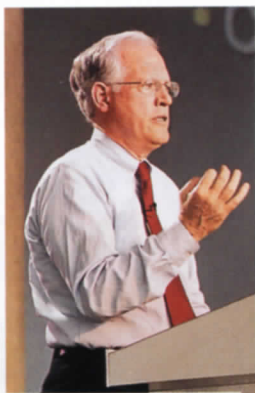
Avaya Spells Opportunity

The Avaya opportunity is clear—it's eBiz. As businesses around the world become increasingly virtual, searching for better ways to communicate with customers and their mobile workforces over a variety of media, Avaya is positioned to lead the way.

"We already build the systems that drive eBusiness growth," President and CEO Don Peterson told cheering, flag-waving employees as the Avaya name was announced at the company's first

all-employee broadcast in June. "Voice and data networks, call centers, messaging and customer relationship management applications — that's who we are today."

With sales to nearly 1 million business customers across the globe and service agreements with almost a half million, Avaya's leadership team believes the company is well-positioned to compete in a market that's expected to grow at a rate of nearly 12 percent a



Henry Schacht
chairman, Avaya



Don Peterson
president and CEO, Avaya



Optimistic Avaya employees celebrated the company's new name and new spirit at Avaya's first all-associate broadcast at the end of June.

BEN FINK AND PETER VIDOR

year, from \$114 billion in 1999 to more than \$170 billion in 2003.

Strategy Built on Strength

"We'll grow by leveraging our strengths, which are many," said Karyn Mashima, vice president, Strategy and Technology.

What's in a Name?

For Don Peterson, Avaya's president and CEO, choosing a name was a critically important decision that, he acknowledges, "was more complex than we first imagined." The executive team wanted a name that would reflect what the company stood for—being high-tech but human.

"We did a natural thing at first. We took all the names we already possess and tried to build on them," he said.

Octel. Mosaix. Lannet, SDX, Prominet and Agile were considered, along with product names like *DEFINITY*, *MERLIN*, *PARTNER*, *Cajun*. All great names, but not one was available in all markets.

Another challenge was finding names that sounded right with "dot-com" at the end. Of the 250,000 words in a typical English dictionary, 98 percent are already registered as dot-com domains. And 15,000 more are registered—the equivalent of a new domain every second—each day.

Right now, there are over 9 million dot-com name registrations—enough to fill 36 typical dictionaries. "But we only needed one—the right one," Peterson said.

So hundreds of names were considered. Some were real words, some suggested by employees, and many "coined" or made-up words. Dozens of candidates were put through legal, language and cultural clearance in dozens of countries and product categories.

"We had a few favorites," Peterson said, "and we tested them with focus groups in New York and London."

One name kept floating to the top—Avaya.

Focus group members said it sounded like a company that was bold, open-minded, spirited and fun. They said this company isn't about hardware and software, circuits and packets. It's about ease, speed, energy and seamless connections. It sounds human, they said.

"That's when we knew we had a winner," Peterson said.

—Suzanne Sidhu

"One of our greatest strengths is our large installed base of customers." About 75 percent of Fortune 500 companies are included in that base.

Avaya also sports a broad portfolio of market-leading products: it's a worldwide leader in sales of messaging and structured cabling systems, and a U.S. leader in sales of enterprise voice communications and call center systems.

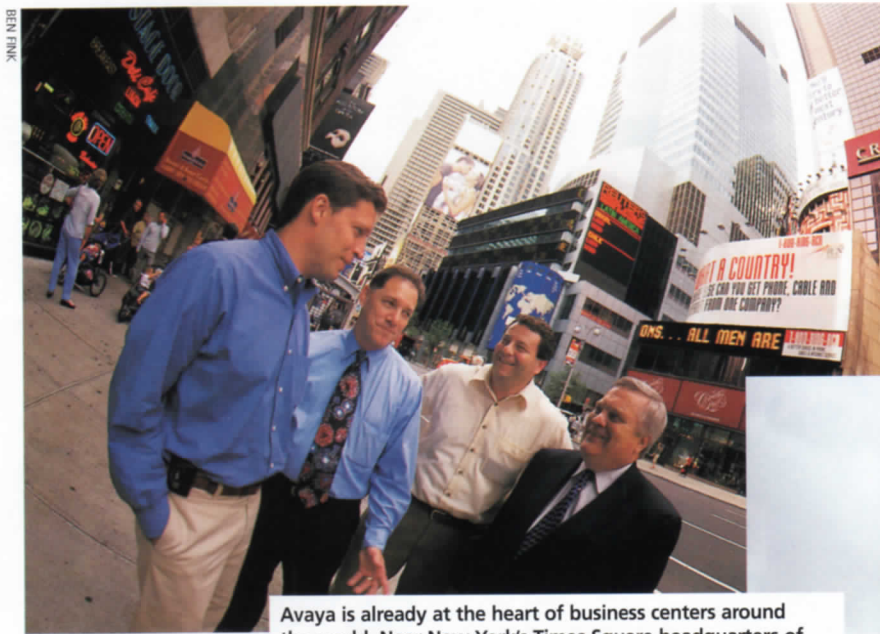
"We've installed 18,000 of the largest, most sophisticated customer contact centers worldwide," Mashima noted.

The company is also a leader

bring solutions to our customers," Mashima said.

As a case in point, Avaya announced an expanded alliance with Siebel Systems to jointly develop, market and sell integrated eBusiness solutions.

Siebel will provide the software and Avaya will provide the communications infrastructure and platform for up to eight integrated packaged offerings. The companies will work together to create new and innovative ways for organizations to interact with and develop relationships with customers—over any media, any currency, any device, any distrib-



Avaya is already at the heart of business centers around the world. Near New York's Times Square headquarters of Morgan Stanley Dean Witter (above), Avaya's sales team members Bruce MacKinnon (right) and Tony Meli (second from left) meet with customers Douglas Day (left) and James Gerb. At the Langham Hilton in London (right), Avaya senior project consultant Roger Blaydon (left) talks over plans for a converged network with Brent Spicer, Hilton International's voice networks manager.

in converged networks. Its *DEFINITY* systems move traffic equally well over circuit-switched, Internet protocol and asynchronous transfer mode communications. And *Cajun Campus* data systems are Day-One ready to carry voice as well as data and video.

Avaya has one of the largest sales and services forces in the industry, as well as a network of 2,800 dealers, value-added resellers and system integrators.

"We'll also rely on alliances to

ution channel, any time.

"It's a real vote of confidence in our new company that companies like Siebel want to work with us," Peterson said. "And there will be more."

Relying on Research

Another strength to leverage is Avaya's 3,000 engineers and devel-

The Avaya Advantage

- Sales to nearly 1 million customers in more than 90 countries, including more than three-fourths of the Fortune 500
- U.S. leader in sales of enterprise voice communications and call center systems
- Worldwide leader in sales of messaging and structured cabling systems
- Almost a half-million businesses with service agreements
- 2,800 dealers, value-added resellers and systems integrators worldwide
- One of the largest sales and services forces in the industry
- Award-winning product portfolio for converging voice and data networks
- Broad portfolio of products for eBusiness solutions

opers, who will be part of an R&D organization that encourages both groundbreaking research and quick commercialization.

"We want a vibrant research lab," said Ravi Sethi, R&D vice president, "but we also need to close the gap between what researchers do and what the business units need, which is products for their customers."

Sethi's plan to bridge the gap includes a special realization center, where researchers, business people and customers can team up to transform promising ideas into products that sell.

"We will focus on developing products that help humans make more effective use of communications to get their jobs done," he said.

The announcement of a planned 50 percent increase in R&D spending should help ensure the success of that vision.

Achieving Effective Operations

Avaya's leaders have already begun an overhaul of operations, re-engineering the company from

BEN FINK



Dave Johnson
vice president, Worldwide Sales and International Services, Avaya

To learn more about Avaya, visit:

<http://www.avaya.com> (external site)

<http://avaya.web.lucent.com> (internal site)

BEN FINK



Karyn Mashima
vice president, Strategy and Technology, Avaya



ROGER TULLY

AVAYA'S MISSION IS TO...

Provide the world's best communications solutions that enable businesses to excel.

"Effective operations are important because they give us the opportunity to successfully compete for our customers' business."

The re-engineering process began with a wide-ranging benchmarking study, which indicated that, while the company is best-in-class in several areas, it must make, sell, install and collect on products more quickly.

Full Speed Ahead

The company has been named, its leaders are in place and the plan is for the spinoff to be complete at the end of September.

"We know what we stand for and we know what we need to do," Peterson said. "The opportunity is tremendous, and we have what it takes to win." ○

— Suzanne Sidhu

end to end to create a well-oiled machine whose parts work smoothly together.

"Re-engineering doesn't just squeeze out costs," Peterson said.

Inviting a New Generation to ...

Expect Great Things

Lucent expects great things from its new corporate ad campaign.

Focusing on Lucent as a leading provider of next-generation Internet networks—the ads relaunch the Lucent brand with a new theme, “Expect Great Things.” And they demonstrate that Lucent is changing the way people work and live by revolutionizing the ways they communicate.

The ads have a decidedly human touch, showing how Lucent—by “making the things that make communications work”—is also having a positive impact on the lives of people; freeing them from wires and changing the ways they live and work.

“The new campaign has a warm, personal look and feel about it,” said Kathy Fitzgerald, senior vice president of Public Relations, Investor Relations and Advertising. “We needed to redefine our position as the leader in the communications revolution. The ads demonstrate how the networks Lucent is building are revolutionizing the way people communicate. We’re helping create a new broadband and mobile Internet.”

A Triple Play

Using a triple play of optical, wireless and data networking technologies, the ads define how Lucent is envisioning, developing and delivering “the future of communications today.”

The campaign was in full swing by SuperComm, the first week of June, with print ads appearing in *The Wall Street Journal*, *Business Week*, *Fortune*, *Forbes*, *Wired*, *Business 2.0*, *Upside* and *Red Herring*. Television spots debuted on a number of major U.S. networks, and the print ads also ran in a number of trade publications.

“There was quite a buzz surrounding the campaign at SuperComm stemming from the numerous outdoor locations, print ads, television spots and banners,” said Sue Sienko, director, Corporate Advertising.

Outside the United States, the campaign’s international ads also are beginning to roll out,

and will be in full swing by the fall, with ads scheduled to appear throughout Asia/Pacific, Canada, Europe and Latin America.

The target audience is broad, including global customers—new, emerging and traditional service providers; the investment community; shareholders; industry analysts and employees.

“No one knows networks like Lucent,” said Kent Miller, director, Corporate Advertising and Brand Management. “We have high expectations for ourselves, and we know customers have equally high expectations.”

“Our new advertising really evolves the Lucent brand and shows that we’re delivering the next-generation Internet with a new generation of services and applications that are changing communications—it’s what people expect from Lucent.”

—Rebecca Scott

Sarah@
the wind farm.
Sarah@the
monitoring station.
Sarah@
doing business
anywhere.

Lucent Technologies
Expect Great Things

Sarah's work takes her to a wind farm. She works for a power company, an office. But now she's anywhere. With the Lucent network, she can have the full range of services right at her fingertips. No wires, no strings. You change the way you change the way. Lucent Technologies that make communications...

WWW.BROADBAND.ORG

Lucent's new corporate ad campaign features technological advances—targeting broadband and mobile Internet markets—and the people they benefit. Making the Internet mobile saves time and gives people the freedom to work, live and play—with no strings attached.

New Lucent Campaign Is a Winner

Lucent scored a goal with its first TV spot that debuted in June during the SuperComm trade show in Atlanta. It shows how broadband and mobile Internet advances are improving communications and changing the way people live.

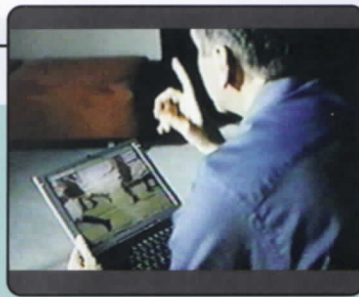


SOCCER DAD (30 seconds)

Voice-over:

"Can you be in two places at once?"

"How many times have you wished you could?"



"Well, now you can, because Lucent is making the Internet move at light speed."

"So a son's semifinal match can be Webcast and a Dad can always keep his promise."



"Change the way people communicate and you change the way they live."

"Lucent Technologies."

"Expect Great Things."



Billboards and posters containing Lucent's new ads are rolling out around the world—as seen here in Schiphol Airport in Amsterdam.



The average Internet download takes 22 seconds. That's 22 seconds longer than a 10-year-old wants to wait.

are born believing that fast enough. The Optical are helping to create offers bandwidth. So kids can send streaming video of their party. Or download pictures from their cousins in nanoseconds. And actually have time left to email their grandparents. Change the way kids communicate, and you change the way they live. Lucent Technologies. We make the things that make communications work™



MCCANN ERICSSON

In Europe, The Heat is On



MATIAS COSTA

Ola Internet, with headquarters not far from the royal palace in Madrid, stands ready to meet the increasing demands of customers across Spain, thanks to a \$26 million deal with Lucent worked out by (from left) Ola Internet's Juan Miguel Hitos; Lucent's Carlos Fuentes; Ola Internet's Jesus Sanchez-Pobre and Juan Manuel Gutierrez; and Lucent's Fernando Valdivielso.

From the Mediterranean's balmy beaches to the frigid fjords above the Arctic Circle, the climate across Europe's telecommunications landscape is the same. It's red hot. And Lucent is applying a good deal of that heat—on its competitors there.

This is an exciting time for Europe and for us," said Eric van Amerongen, president and CEO of Lucent Service Provider Networks' Europe, Middle East and Africa (EMEA) region. "National borders are becoming transparent. Mergers, partnerships and acquisitions are creating global networks and opportunities. Deregulation and the privatization of state-owned service providers are opening new markets to competition.

"A new era of networking is helping to create this environment, and customers throughout the continent are recognizing that Bell Labs innovations and Lucent solutions are a big part of this new era."

Last year, Lucent's revenue in Europe grew by nearly 50 percent, and since the beginning of 2000, the EMEA team has closed deals with customers from Great Britain all the way to Russia.

It seems that hardly a week goes by without the announcement of another Lucent contract in Europe. Kenan Systems billing software for global system for mobile communications (GSM) networks. Fiber and infrastructure for optical networks. Internet protocol (IP) network design and integration by *NetworkCare* Professional Services. End-to-end solutions that Europe's 5,000 providers of voice, data and video services need.

Opportunity and Success

Europe is the largest trading block in the world after North America.

In 1999, the market for communications systems, software and support services there was US\$130 billion. The estimate for 2003 is US\$210 billion.

"The telecommunications market is the hottest sector of a very hot European economy," said Francois Barrault, senior vice president, Service Provider Networks in EMEA, "and we're working hard to make the most of every opportunity. For example, Europe has more than 30 percent of the world's Internet users, and Lucent serves more than 70 percent of the continent's Internet service providers."

Another hot sector is mobile telephony. There are more mobile phones than fixed lines in Finland, for example, and in Great Britain—where Lucent has its worldwide headquarters for universal mobile telecommunications services (UMTS)—more than 1 million people own a



"Customers throughout the continent are recognizing that Bell Labs innovations and Lucent solutions are a big part of this new era of networking."

Eric van Amerongen
president and CEO of Lucent Service Provider Networks, EMEA

mobile phone instead of a fixed-line phone.

A spate of wins since the beginning of the year illustrates Lucent's success in the hottest areas of Europe's telecommunications market. They include:

- A contract expected to be worth \$350 million to build an optical network for Swedish provider, Telia, and another to

We Reign In Spain

Miguel Fernandez-Ranada is a busy man, and an increasingly popular one.

As Lucent's sales director for New Operators in Spain, his job is to introduce Lucent's solutions to the 50 new service providers there. And it's those solutions that are making him, his team and Lucent extremely popular, as evidenced by two recently won contracts with Ola Internet and Airtel.

"Lucent's position in Spain is extremely strong," said Fernandez-Ranada. "Lucent's win with Telefonica Data, the country's largest Internet service provider, provides us with a tremendous profile among the emerging operators that my team works with. These new service providers see that we have vast experience and a complete solution, which is precisely what they need."

The US\$26 million contract with Ola Internet will allow Lucent to install a nationwide Internet protocol (IP) network for voice and data business customers. The network will be composed of 51 nodes across all provinces in Spain and will employ wide area network switches, network management systems and remote access and voice over IP systems. The end-to-end multimedia network will enable Ola Internet to offer its customers the same quality and reliability they expect from the voice network.

"To be a market leader, it is necessary to offer competitive, advanced and unique services," said Juan Miguel Hitos, general manager of Ola Internet. "Lucent provides us a new-generation, single-technology platform, backed by Lucent expertise in quickly implementing IP network buildouts."

Airtel selected Lucent to supply and build a high-speed, converged voice and data network that will provide Airtel customers with a full range of advanced offerings, including wireless, wireline and Internet access services. By deploying *WaveStar* OLS 400G—an 80-channel dense wavelength division multiplexing system—Lucent will help Airtel meet the dramatic growth in fixed telephony, Internet and wireless traffic that its network is experiencing.

—David Fine

Filling a "New World" Order

Vikings and the New World. It's an old story being given a new twist through a contract between Lucent and Telia, Scandinavia's leading Internet and communications provider.

Telia, based in Sweden, chose Lucent to help build its Viking Network, which will span Europe and the United States. The three-year agreement is expected to be worth more than US\$350 million.

"By combining our telecommunications experience with Lucent's state-of-the-art solutions, we can build a global network to meet and exceed our customers' expectations," said Telia Vice President Marianne Nivert. "With our rapidly expanding global presence, Telia will be able to provide better and more competitive services to consumers, carriers and Internet service providers alike."

The Viking Network will use Lucent's advanced dense wavelength division multiplexing (DWDM) technology to provide high-speed telephone, Internet and data transmission services from Russia all the way to California. By the end of the year, the network will cover 30,000 kilometers (18,000 miles) and connect 40 major cities in Europe and the United States.

The network will be equipped with Lucent's *WaveStar* OLS 400G optical networking system. Lucent's *NetworkCare* Professional Services will provide end-to-end network integration and consulting services, including planning, installation, integration and network management services.

"With deregulation of the Swedish telecommunications market, Telia was free to look beyond Ericsson, the in-country vendor," said Hans Rundberg, Lucent's country manager for Sweden. "Telia chose us for our DWDM leadership and our experience in building global networks. Telia and Lucent are uniquely positioned to rapidly build and deliver complete global communications solutions needed in the new world economy."

—David Fine

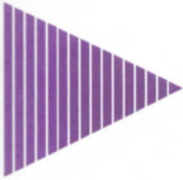
build an asynchronous transfer mode (ATM) core network for Swedish analog and digital TV distributor, Teracom. Telia's "Viking Network" will span Europe and the United States (see related story on this page), while the Teracom solution will deploy more than 80 ATM nodes throughout Sweden.

- Three deals in Spain: one, which could reach \$200 million, to design and install an IP-based network for Telefonica Data; a \$26 million deal with Spain's Ola Internet to install a nationwide voice and data IP network (see related story on page 15) and an \$18 million contract with Spain's Airtel to supply and build a nationwide, high-capacity, converged voice and data optical network.
- An agreement, initially worth \$45 million, with Italian GSM



Swedish provider Telia's new Viking Network will span Europe and the United States, thanks to a \$350 million deal worked out by Marianne Nivert, first senior executive vice president of Telia; Hans Rundberg, Lucent's country manager for Sweden; and Lars Rydin (inset), president and CEO of Telia International Carrier AB.

ROGER TULLY



"We're achieving great things here, and there's more to come."

Eric van Amerongen, president and CEO of Lucent Service Provider Networks, EMEA

operator, BLU S.p.a., to provide a data center, a call center, a comprehensive billing solution and network integration (see related story on this page).

- Two deals in Germany, one—with a potential value of \$400 million—with QS Communications for a digital subscriber line (DSL) network, and the other to supply a leading-edge optical network allowing Deutsche Telekom to meet its customers' growing demand for data applications bandwidth.
- Contracts for Lucent's Kenan Systems billing solutions with GSM operators Telecel of Portugal and Cesky Mobil of the Czech Republic and Sweden's leading broadband services provider, Bredbandsbolaget.

Other wins include a deal with Russian provider Sovintel for a fixed-wireless network—the first in Russia to use the Lucent CDMA wireless subscriber access system—in Moscow and St. Petersburg, and a deal with Tiscali-NETs to expand its Pan-European optical network covering Benelux, France, Germany, Holland, Spain and Switzerland.

A Growing Team

There are 23 Bell Labs facilities in Europe and centers of excellence in eight countries. By year's end, a recruiting effort will bring to nearly 20,000 the number of people on the EMEA team.

"Qualified IT and networking people are a hot, hot commodity across Europe," said van Amerongen. "We're not simply waiting for technical talent to appear. Not only are we recruiting, we're also nurturing and supporting top talent through academic programs and investments throughout the region."

In March, Lucent bought DeltaKabel TeleCom, a Dutch developer of cable modem and IP telephony solutions. In May, the company announced a broad industry

BLU Begins With LU

In Europe, mobility is becoming a way of life. In fact, by 2003, an estimated 240 million Europeans—61 percent of the population—will be mobile phone users. And many of them will be using wireless to access the Internet.

With converging technologies, wireless service providers need advanced customer service solutions: integrated networks, data centers, call centers and billing systems. That's the turnkey solution BLU S.p.a., Italy's newest global system for mobile communications (GSM) provider, wanted when it signed a contract with Lucent worth approximately US\$45 million.

"We were competing for BLU's business with a number of well-known systems integrators, including Andersen Consulting and EDS," said Silvano Beghetti, managing director of Lucent Italy, "but we had an advantage. We can provide an end-to-end solution with equipment, software and professional services designed specifically for mobile operators."

Lucent is deploying a core information technology system and providing network integration that will control BLU's internal customer service and billing operations, as well as technical and administrative management. Included in the solution are Lucent Kenan Systems' Arbor/BP and Arbor/OM convergent billing software products. *NetworkCare* Professional Services will be responsible for business strategy consulting, network deployment and program management.

"Our solution dramatically affects customer service capabilities, which are of competitive advantage and crucial importance," said Beghetti. "This is an important win for us, and we're very proud to have been chosen by BLU to help it make its mark in the competitive Italian wireless telecommunications market."

—David Fine

initiative in Italy to help drive development of third-generation (3G) wireless applications and services. It includes creation of a Bell Labs Research and Development Center and a world-leading UMTS integration center in Milan.

One of the largest Lucent investments outside the United States is the center of excellence being built in Nuremberg, Germany. Other significant investments include the \$150 million expansion of Lucent's optical networking facility in Dublin, Ireland, and the expansion of a fiber manufacturing facility in Denmark.

But it isn't only large investments that are allowing Lucent in Europe to satisfy customers and grow the business. The Repair Information Tracking System (RITS) is an example of how a small team can make a great impact.

Developed by the EMEA Chief Information Officer and maintained by a team of five *NetworkCare* Network Service professionals in

the Netherlands, RITS provides up-to-the-minute information about repairs being done by Lucent in 30 global locations. The hub database captures information from customer service and supplier contracts, product sourcing, spare parts management and delivery and lead-time monitoring, making it a 21st century system that dramatically improves our ability to delight the customer.

And in the European telecommunications environment today, that ability means more than ever.

"Europe is changing and growing, and we're doing the same," said van Amerongen. "Those times in which companies automatically were awarded contracts in their home markets are gone, and we're moving quickly to take advantage of the opportunities in this new European economy."

"We're achieving great things here, and there's more to come." ○

—David Fine

How is your organization ensuring long-term relationships with its customers?



DAVID PORTNOY

In Customer Technical Support, our job is to resolve customer problems by listening to their concerns with empathy and never taking conflicts personally. We clearly communicate the proposed solutions to our customers and involve them in the problem-solving process. Staying in close contact with customers reinforces our commitment to addressing problems with speed, efficiency and understanding.

Kong Jin Lee

local customer technical support manager, Customer Technical Support, Service Provider Networks, Kuala Lumpur, Malaysia



RICK FALCO

Our team administers a technical support Web site for Inter-Networking Systems customers. Our goal is to improve turn-around times and user experiences. We conduct focus groups and customer surveys, and talk to customers daily to understand and support their tactical and strategic needs. We see ourselves as customer advocates within Lucent. By partnering with and listening to customers, we can achieve working relationships that are open, genuine and ongoing.

Kate Zalusky

eSight Operations and eCommerce manager, NetworkCare Professional Services, Warren, N.J.



SIMON TURTLE

Customer focus, ownership and the right skills mix are critical. The EMEA sales group assigns account managers and applications engineers to customer tag teams that focus on specific projects. Together, they deliver the commercial and technical support customers demand. The tag team's success generated multiple wins for Lucent's 3G infrastructure, packet backbone transport and optical networks.

Greg Ellard

director, Worldwide Sales, Microelectronics, Ascot, England



LARRY EVANS

We always remember to put ourselves in our customers' shoes and think about their business needs and the challenges they face. One step in that direction is teaming customers with R&D engineers, who can work directly with them before and after sales meetings. Let's build lasting relationships based on Lucent's best asset: Bell Laboratories.

Andrew Berman

distinguished member of technical staff, Switching Solutions Group, Service Provider Networks, Naperville, Ill.



JOHN HARQUAIL

Our team enhances customer relationships through a weekly eBusiness newsletter, which outlines Lucent's key messages and developments. Customers also are invited to national technology seminars, which highlight our main business solutions and allow them to talk with technology experts. Our goal is to keep customers at the forefront of our business.

Carol Aguirre

marketing communications analyst, Service Provider Networks, Markham, Ontario, Canada

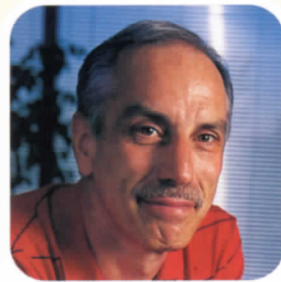


SAL DIMARCO

By challenging manufacturing to reduce work-in-process levels and manufacturing intervals, we can respond faster to changes in customer specifications. We've also challenged internal and external suppliers to reduce their intervals. With this focus, we are securing stronger relationships and the flexibility to deliver what customers need, when they need it.

Mike Caffrey

master scheduler, Optoelectronics, Microelectronics, Breinigsville, Pa.



ROBIN NELSON

In building global optical networking loops, customers rely on Lucent not only for top technology, but engineering support that brushes aside geographic borders. Our Global Operations Center and 13 international Engineering Centers consistently deliver what customers expect: responsiveness, one-on-one service and increased customer satisfaction.

Bruce Morgan

manager, International Engineering Operations, Service Provider Networks, Alpharetta, Ga.

