

NETWORKS

NEWS ABOUT NETWORK SYSTEMS, ITS PEOPLE, CUSTOMERS AND COMPETITORS

Feature

NS Shows Its Wireless Side at PCS '97 Trade Show

Competition in the wireless world is hot and the entrance of new PCS licensees is fueling the flames. More and more cellular carriers are offering digital wireless service to compete. And everyone's looking for ways to grow faster and manage their growth as they go. With that in mind, Network Systems recently used the PCS '97 trade show in Dallas to highlight the ways Lucent helps wireless service providers achieve their goals.

PCS '97 has become one of the largest wireless trade shows in the world: More than 25,000 attendees and 600 exhibitors from at least 60 countries. And at 12,000 square-feet, Lucent's main booth (staffed jointly by Consumer Products, Business Communications Systems and Network Systems) was one of the largest at the show.

Underscoring Lucent's commitment to provide the solutions customers demand, Network Systems announced several new enhancements to its wireless platforms. The enhancements included new data capabilities and increased capacity for its CDMA system, and private network capabilities for its TDMA platform.

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NS Announces

NS Unveils Major Wins in Europe, China and U.S.

As Lucent executives gave "state of the business" reports to financial and industry analysts in Murray Hill, N.J., this week, Network Systems announced several contracts that emphasized Lucent's position as a global leader in telecommunications. The announcements showed Lucent making inroads in Europe, breaking new wireless ground in China, and supplying latest software systems and data networking equipment in the United States.

Lucent Technologies Network Systems announced:

BT Contracts—Network Systems won three new agreements with British Telecom (BT), which initially add up to more than US\$80 million. The agreements represent Lucent's first significant contract with BT since the spin-off from AT&T. Previously, because AT&T and BT were competitors in the U.K., Network Systems only re-

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Policy Deployment

Update!

Linking Performance Objectives to Policy Deployment

As we move into a high-performance operating environment bent on beating the competition, setting personal performance objectives which are aligned with Network Systems' goals is more critical than ever. And it's taking place right now as Network Systems executives throughout the world are making sure that Policy Deployment is the corner-

stone for their own 1998 performance objectives. It's only the beginning. Starting next week, the process of aligning Policy Deployment goals with performance-management objectives will be cascaded to all D-level, C-level and technical managers in the organization. The process must be complete by November 1.

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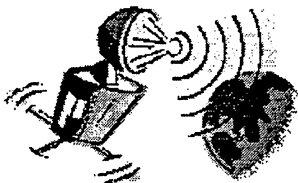
Visitors also learned how Lucent is working with other companies to bring solutions to customers. Lucent announced the establishment of Cooperative InnovationsSM, an alliance of companies working together to introduce value-added solutions Lucent's customers want. And in November, Lucent will host an Application Developers' Forum to share technical information with wireless data application developers using Lucent systems.

Visitors heard about Lucent's consulting services for combating wireless fraud and security intrusions, solutions for fixed wireless local access, and a range of Lucent's wireless professional services. Network Systems also introduced a new suite of service node-based applications offered on Lucent's Wireless Intelligent Network platform. These new capabilities—short message service, pre-paid service and over-the-air-service provisioning—give service providers a competitive edge.

Other parts of Lucent's business were on display, too. Microelectronics Group unveiled a new digital signal processor (DSP) architecture that will run wireless base stations the size of smoke detectors. Consumer Products unveiled two new digital wireless phones; to be marketed under the Philips name following the Oct. 1 launch of the Lucent/Philips joint venture. Business Communications Systems displayed its multi-zone wireless business phone system.

With all those wireless solutions on display, there was no doubt at PCS '97 that Lucent is a major player in the wireless world. □

—Ollie Hartsfield



NS Unveils Major Wins

Continued from previous page

ceived small contracts from BT. In two of the agreements, Lucent's 5ESS@-2000 switching platform will help BT offer enhanced value-added services. As part of the third agreement BT will trial Lucent's DWDM (dense wavelength division multiplexing) transmission equipment to increase network capacity. Lucent's DWDM transmission technique, developed by Bell Laboratories, dramatically increases the amount of voice and data traffic that can be carried on a single optical transmission fiber. Successful completion of the trial could result in an initial two-year volume deployment roll-out of the system in the U.K. network.



Wireless First in China—

Lucent's wireless Code Division Multiple Access (CDMA) system passed roaming tests between two different networks in Guangdong and Beijing—the first such achievement for any company in China. Earlier in the month, Lucent's CDMA trial system also achieved successful roaming between networks in Guangdong and Shanghai. These successes mean that, once the system

is commercially deployed, CDMA wireless users from the Guangdong network will be able to use their phones while traveling in Beijing and Shanghai. Lucent has helped China reach another milestone in its goal to build state-of-the-art wireless networks.

Major Software

Contract—In the United States, Lucent signed a contract valued at more than \$35 million with NYNEX, which recently merged with Bell Atlantic. The contract calls for software systems to upgrade NYNEX's network operations. The systems will also support the implementation of Local Number Portability, a technology that lets customers keep their existing telephone number even if they switch their phone company.



First Customer for New

Switch—The first customer for Lucent's new core ATM switch, the GlobeView@-2000, Release 2, will be the U.S. Department of Energy's Sandia National Laboratories. Sandia will use the new switch for its voice and data networking applications. □

Policy Deployment

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"In 1997, we used policy deployment to establish objectives at the executive level in support of Network Systems strategy," says Tom Arnold, Network Systems Policy Deployment vice president. "This year—as we head toward becoming a high-performance company—we want to create more direct linkages with more people throughout the organization. In essence, we are extending the process to D-level, C-level and technical managers and integrating Policy Deployment objectives into the performance management process." But that doesn't stop others in the organization from doing the same. Policy Deployment may be extended further throughout the organization, and some organiza-

tions are requiring it at every level of management.

Policy Deployment is the framework for our success and growth. Policy Deployment is focused on satisfying three Lucent stakeholders: employees, customers and shareholders. Six structured, measurable Policy Deployment initiatives have been put in place for 1998 to help do that. They are geared toward engaging our people, exceeding customer expectations and increasing shareholder value. The initiatives are: High-Performance Operating Environment, Voice of the Customer, Project Lightning, Project Cheetah, Growth and Financial Performance.

Continued on next page

Policy Deployment

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Here's why we need to align these initiatives with our performance:

To Engage Our People: High-Performance Operating Environment

We want to be a growth-oriented, high-performance company. First, we need to create a high-performing operating environment. The 1998 measures continue the 1997 focus on enhancing the skills of Network Systems' people and the organization as a whole.



To Exceed Customer Expectations: Voice of the Customer

Customers want us to listen better. The 1998 Voice of the Customer initiative focuses us on using the information we collected in 1997 to improve our performance in the eyes of the customer. It allows us to use what our customers are saying to improve the business, reduce customer-impacting defects and improve levels of customer satisfaction.



To Exceed Customer Expectations: Project Lightning

Customers want new products developed now. And they want to pay less for them. This customer-driven initiative helps us to speed products to market. It increases the velocity of the product development cycle at every stage—from recognizing a customer need to concept, to development and general availability. The faster cycle will help us meet customer commitments and drive down product costs.



To Exceed Customer Expectations: Project Cheetah

Customers want products delivered on-time and in short order. We want to carry less inventory and fewer past-due accounts. Cheetah's charge is to speed delivery of our products and services to customers. It will help customers meet their objectives and it will help us. Our business needs cash—for salaries, expenses, capital expenditures—and faster, more complete delivery means customers pay us sooner.



To Increase Shareholder Value: Growth

We want to grow the business. This initiative allows us to identify areas of the business that strengthen our growth, customer by customer. For example, when we are growing sales faster than market-growth rates for a specific customer, we know that we are making gains. We are also developing a metric to determine the impact of new products on our business. By increasing the proportion of our business from newer products, we help ensure growth in the years to come. We will measure our success in selling through non-traditional channels to ensure we are finding the right path to customers. And, we must continue to grow rapidly in each global region.



To Increase Shareholder Value: Financial Performance

Shareholders want higher returns on their money. We have to focus on improving financial performance. We need to increase revenue and operating income, and reduce inventory, expenses, late receivables and capital expenditures. □



—Marie Panzera

Lightning Project: Bolting from Analysis to Action

Project Lightning, the Network Systems Policy Deployment effort dedicated to achieving breakthrough improvements in speed, cost and performance to customer commitments is about changing the way we develop new products—not only the processes, but also our roles, responsibilities and behavior—to make Lucent the benchmark among our competitors. To stay successful, Network Systems must keep ahead of a rapidly changing marketplace.

Project Lightning's goals are to help each of our businesses:

- ✓ Decrease new-product introduction cycle time by 50 percent.
- ✓ Double new product introduction productivity.
- ✓ Meet customer commitments at least 90 percent of the time.
- ✓ Deliver cost-competitive new products.

Already, the Lightning project team has analyzed new product development practices in Network Systems and other high-performance companies, and has surveyed employees for their views. Survey results confirmed Lightning's objectives and provided the following key findings:

- ✓ The greatest potential for improvement is in the front end of the new product development process.

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For more information, check in at the Policy Deployment web site <http://www-nsco.lucent.com/ns/pd>, Project Cheetah web site <http://www-cheetah.lucent.com> and Project Lightning web site <http://infoview.lucent.com/lightning>.

Bolting from Analysis to Action

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Many improvements can be made to better coordinate and streamline development and deployment.

Roles, responsibilities and accountabilities need to be clarified and simplified.

Portfolio and resource allocation are at the root cause of many delays.

Architecture and platform management also provide potential to improve time to market.

Barriers in our culture that slow decision-making and discourage risk-taking must be removed.

Initiatives have now been launched and owners have been named to develop detailed solutions, conduct pilot projects starting in November, and to roll out changes across Network Systems beginning early in 1998.



Lightning Initiatives

High Performance Operating Environment

Roles and Responsibilities

Resource Allocation

Front End Process

Development and Deployment

Architecture and Platforms

Competitive Product Cost

Owner(s)

Dan Stanzione, Jim Brewington

Bob Holder, Bill Ausura

Frank D'Amelio

Mike Chan, Mike DeCelle

Jack Cicon, Fred Lax, Lynn Mercer

Wayne Fabricius, Eric Sumner

Nelson Marshall, Daryl Skaar, Ed Tracy

Initiative owners and their teams will work closely with the business leadership groups and customer business units in the next few months to define, test and implement solutions to achieve the Lightning objectives. □

Around NS



ACBU Focuses on Quality

The AT&T Customer Business Unit (ACBU) has reached the site visit stage for the New Jersey Quality Achievement Award. The award, based on the Malcolm Baldrige Quality Award criteria, is sponsored by Quality New Jersey, an organization that uses quality principles to improve New Jersey's private and public sector organizations. "This is a significant step in our journey towards achieving performance excellence," said Dino Lambros, ACBU quality consultant. "The application process, site visits and feedback we'll receive will provide us with a focus on the things we do well and those areas that need to be improved. It also give us an opportunity to demonstrate how well we can work as a cross-functional team." Examiners will be conducting site visits on Sept. 23-25 in Warren and Holmdel, N.J. Award winners will be announced in late October. □

NS in the News

Lucent, Nortel up on Bullish Meetings with Analysts—Shares of Lucent Technologies and Northern Telecom both registered strong gains after analysts heard bullish forecasts from company executives, said PaineWebber Inc. analyst Walter Piecyk. Lucent is meeting [this week] with Wall Street analysts. Northern Telecom, Brampton, Ontario, met with analysts Monday. The tone of both meetings was strongly bullish and probably accounts for gains in both stocks, said Piecyk. (*Dow Jones News, September 16*)

[Editors Note: More than 400 financial and industry analysts came to Lucent headquarters in Murray Hill, N.J., this week to hear Lucent executives give an update on the business. Network Systems executives Dan Stanzione, Gerry Butters, Neil Whittington, Nina Aversano, Jim Brewington, Scott Erickson and Harry Bosco were among the executives who talked with analysts. NETWORK! will cover highlights from the meeting in next week's issue.]

Lucent's Data Networking Strategy

—Aiming to profit more directly from the wired world's appetite for digital information, Lucent announced its long-awaited data networking strategy, sending its shares up modestly. Lucent unveiled a handful of new products intended to manipulate data at bit-blurring speeds. "Their data strategy is now articulated much better than it has been in the past," said Gregory Geiling, an analyst for J.P. Morgan. "But there is still a lot of work ahead for them if they want to become a top-three player in data networking." [BCS President Bill] O'Shea said, "One side of the coin is clearly the opportunity this provides for us. The other is the defensive part of this, which is that if we don't become a competitor in the data networking space as voice and data converge, we expose ourselves to the data networking companies coming into our business." [*New York Times, September 19*] □



Industry Briefing

About Our Competition...

Ericsson

Ericsson Signs Contract—

Ericsson said it has signed a three-year extension contract with U.S. telecom operator American Personal Communications for GSM-network equipment to be used in the Washington and Baltimore areas. (*The Wall Street Journal Europe via Dow Jones, September 12*)

Motorola

Motorola Forecasts—Motorola disclosed that shutting a computer-cloning operation and weakness in the world paging market would drive third-quarter earnings “significantly lower” than analysts’ forecasts. [Motorola] has struggled for 18 months with declining market share in cellular-phone and semiconductor operations. Major initiatives in advanced wireless telephony, two-way radio and two-way paging were slow to develop. Now [Motorola] is disclosing other problems. (*The Wall Street Journal via Dow Jones, September 12*)

NEC

NEC Agreement with AT&T—

NEC America announced that it has signed a five year agreement with AT&T to purchase NEC network equipment. NEC America’s Public Networks Group provides a full line of SONET transmission systems, network management systems, digital loop carriers, and ATM switches for public networks. (*Business Wire, September 15*)

Nokia

Nokia Wins Contract—Nokia has won a \$170 million contract to expand a digital mobile phone network in Italy, the company said. The agreement aims at expanding Omnitel’s Global System of Mobile [GSM] communications network. (*AP-NY, September 15*)

the evolution of the TDMA digital standard. Announcements from AT&T Wireless Services, Southwestern Bell Mobile Systems and BellSouth Cellular Corp. came during a press conference. International carriers—including Pacific Link of Hong Kong, Celumovil of Colombia and Rogers Cantel of Canada—also emphasized the momentum for the global standard especially in Asia Pacific and Latin America. (*Business Wire via Dow Jones, September 12*) □

About Our Customers...

AT&T

AT&T to License Its Name—

AT&T plans to franchise its name for the first time to wireless and local phone companies, breaking with its tradition of keeping tight control over its network assets. The plan could allow AT&T to hold down its capital spending, saving billions of dollars over several years. The strategy could also help determine whether Vice Chairman John Zeglis will win the top job at the telecom giant. [*Wall Street Journal, September 18*]

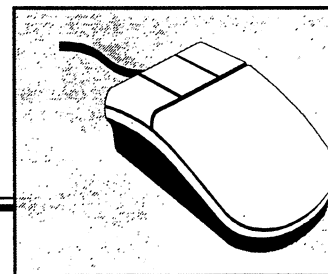
About the Industry...

Support for TDMA as Global

Standard of Choice—The nation’s top cellular carriers announced their re-commitment and investment in

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NS-CIO Spotlight


CIO Pledges Action to Better Meet Employee Needs


In a significant move to better meet internal customers' computing needs, Network Systems' Chief Information Officer (CIO) organization, along with its counterparts across Lucent, is pledging immediate action in five areas of concern to employees.

The actions being undertaken are in response to the results of a July survey of Lucent employees. They include:


 Improve the process by which computer hardware and software for employees are ordered, delivered and installed. The current process takes 30 days on average; target is 15 days.

 Improve access to Help Desk and Repair Services agents, and minimize the need for multiple calls, through process improvements and system automation.

 Reduce the need for multiple visits to repair desktop hardware and software through improved technician training, diagnostics and tools.

 Improve remote access to Lucent's internal network, espe-

cially the log-on process. The goal is to double the number of ports, from 400 to 800, by the end of September, with additional ports being added throughout 1998.

 Communicate CIO initiatives, responsibilities, standards, etc., more effectively via internal communications media.

Commenting on the five action areas, Network Systems Chief Information Officer Brij Khandelwal said, "Clearly, continuous improvement is the only way to run our information infrastructure. The survey results now help us to prioritize those improvements. Also, in addition to the top five action items, we'll be looking closely at the responses from NS employees to see whether other patterns of local need emerge."

About 40,000 Lucent managers with valid e-mail IDs were invited to participate in the electronic survey. The top five action areas were identified by the more than 9,000 employees who responded. All units of the business were represented. The questions focused on

two areas of CIO responsibility: End-User Support, and Network Services.

Concerning overall satisfaction with End-User Support, respondents rated the CIO's efforts at 3.72 on a 1-7 scale, with 7 being high. Timeliness was rated the most important service attribute, followed by expertise.

Concerning Network Services, respondents gave office network, e-mail timeliness, Intranet response time, and access to computer applications generally high ratings (4.9 or higher), while remote network availability and ease of log-on were rated lower (between 4.1 and 4.08 respectively).

The survey also drew over 26,000 verbatim comments that are now being categorized and analyzed.

For additional information about the survey, visit the web site at <http://ltsurvey.wh.lucent.com>. Or contact Maryann Mercer Fava at mmercerv@lucent.com or at 908-559-5051. □

—Larry Chase

Letters to the editor



NETWORK! will publish signed letters as space permits – reserving the right to edit for clarity. Please include

your name, work location, and a contact number where we can reach you. Opinions expressed in the Letters section do not necessarily reflect the views of Network Systems management. See our contact information at right.

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