

FOCUS

# CELEBRATING QUALITY:

How AT&T Won Two Baldrige Awards

1992 7

GREG HUGHES  
p 4



## To All AT&T People:

**W**hen we adopted the Baldrige Award criteria for AT&T's own internal awards program, we did so because these rigorous tests of our commitment to customer satisfaction were the best available. They still are.

Winning the Baldrige Awards in 1992 demonstrates that AT&T can compete with the best — and win! The people of both winning businesses are, and should be, proud of their accomplishments. And, all AT&T people take pride in this recognition. Congratulations!

As we look ahead, we should all be cognizant of the fact that with the joy of winning comes the rising expectation that all of us in AT&T will treat our respective customers in “Baldrige Style.” There is a “halo” effect that advantages us all in the marketplace — but only so long as we earn it, and earn it, and earn it.....

I look forward to the day when all of AT&T qualifies as a Baldrige winner. I am convinced we can.

R.E. Allen

# THE BALDRIGE AWARDS

Quality was Malcolm Baldrige's obsession. The U.S. Secretary of Commerce from 1981 until his death in 1987, Baldrige urged American manufacturers and service companies to resist short-term competitive pressures and instead focus on long-term goals of excellence and customer satisfaction.

Shortly after Baldrige's death, Congress established the Malcolm Baldrige National Quality Award to encourage and recognize adherence to the highest standards of quality. The award, which is administered by the Commerce Department's National Institute of Standards and Technology, can be given to two companies annually in each of three categories: manufacturing, services and small business.

The Baldrige process looks at three elements of a company's total quality management system: approaches, deployment of approaches and results. To win, a company must have a world-class system for managing its processes and its people. This system should ensure continuous improvement in products or services, and provide a way of responding to and satisfying customers' needs.

The standards set by the Baldrige judges are strict:



# BALDRIGE AWARDS

On average, only about half the maximum number of awards are granted annually. Before 1992, only a dozen businesses had received Baldrige Awards, and none had ever won two.

Announcing on Oct. 14 that AT&T had been honored in both the manufacturing and service categories, Commerce Secretary Barbara Hackman Franklin offered congratulations to the company and, especially, its employees. Their efforts, she said, "are clearly proof that there's a renewed devotion to excellence, detail and good old-fashioned hard work in this country. I have never been prouder or more optimistic about the future that lies ahead for American industry."

## SPANNING THE QUALITY SPECTRUM

AT&T Transmission Systems, one of the company's oldest businesses, was honored as a manufacturer. Three-year-old Universal Card Services, one of its newest enterprises, was recognized in the services division. Aptly, these two businesses represent industry, the backbone of the nation's economy until now, and services, which increasingly are coming to define the information economy of the 21st century.

In 1988, AT&T Chairman Bob Allen announced the goal of making the company "the best in the world at delivering the benefits of information technology." The company's Total Quality Approach, which is modeled on the same criteria for excellence used in the Baldrige competition, puts the customer first. The best products and services, however, come from the best workforce, which means that inside AT&T, employees have more authority and more resources to enable them to focus on, and satisfy customers. This theme, called "empowerment," does the most to explain how AT&T achieved the distinction of winning two Baldrige Awards.

Excellence at AT&T is by no means limited to the two business units honored with these awards. The company set an internal record this year when five business units qualified to receive the Chairman's Quality Award (CQA) in the Achievement category, seven units received Improvement Awards and seven more were recognized for substantial progress. Patterned on the Baldrige Award, the CQA recognizes that world-class quality can be found throughout the company.

Indeed, AT&T pioneered modern methods of measuring and improving industrial quality. The most famous names in quality improvement, from Walter Shewhart to W. Edwards Deming and Joseph M. Juran, have been AT&T employees. This year alone, the company received scores of major national quality awards, in addition to the Baldrige.

So the story of quality at AT&T is and always has been the story of its employees—the story of a process of constant change and improvement. Two Baldrige Awards are significant milestones in this process, but they aren't the finish line. By the time excellence is achieved, customers are already demanding a higher level of performance. To meet that challenge, AT&T aims not merely to satisfy its customers, but to delight them. And, as you will see in these pages, AT&T is succeeding.

Malcolm Baldrige National Quality Award.



# QUALITY

means customer  
delight: in manufacturing

## TBU IN A NUTSHELL

Transmission  
Systems  
Business Unit  
(Part of AT&T  
Network  
Systems)

**Headquarters:**  
Morristown, N.J.

**President:**  
Greg Hughes

**Quality manager:**  
Lou Monteforte

**Formed: 1989**  
(Was part of Western  
Electric and Bell Labs)

**Employees:**  
**12,000**  
Domestic: 9,000  
International: 3,000

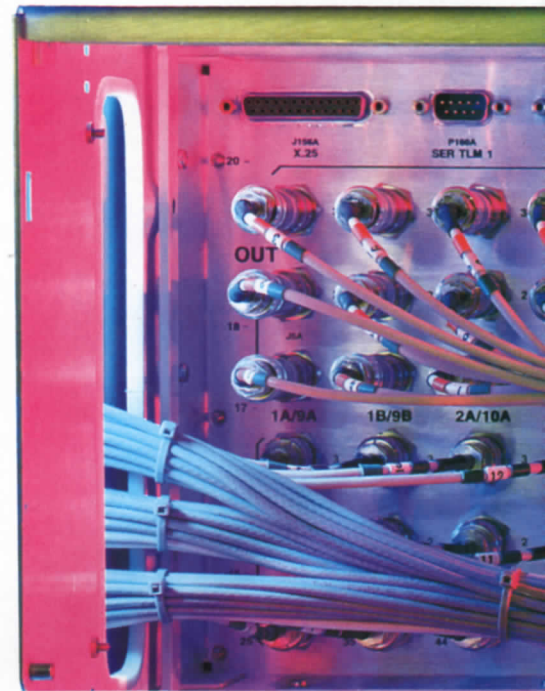
**Factory locations:**  
Merrimack Valley  
Works, North  
Andover, Mass.  
Oklahoma City  
Works, Oklahoma  
City, Okla.

**Other locations:**  
Holmdel, Whippany,  
Freehold and  
Berkeley Heights,  
N.J. Denver, Colo.

**Products:**  
Equipment and sys-  
tems to deliver

telecommunications  
to and from cus-  
tomer locations and  
central-office-like  
environments

**International  
Division:**  
Headquarters:  
Hilversum, the  
Netherlands  
Manufacturing:  
Huizen, the  
Netherlands



DACS III-2000

Greg Hughes and  
Lou Monteforte



**“Now everybody  
wants to be on  
the team. They  
know that quality  
is important.”**

— Ed Domenech,  
Merrimack Valley

With its roots in the Western Electric Company, AT&T's Transmission Systems Business Unit (TBU) has had a long and distinguished history developing and manufacturing the equipment that makes modern telecommunications possible.

TBU was formally created in 1989 as one of the six business units that comprise AT&T Network Systems, AT&T's largest manufacturing group and the leading worldwide supplier of network telecommunications equipment. Its quality efforts, however, go back years before the breakup of the Bell System. All changes since then — for AT&T and the now-independent Regional Bell Operating Companies (RBOCs) — have only served to focus and strengthen TBU's commitment to continuous quality improvement.

In six years, the unit has achieved a 10-fold improvement in product quality; in the last four years, the unit has cut in half the time it takes to get product to market, reduced inventory by 40 percent and had more than \$375 million in cost savings; and in the last two years, it reduced the number of product returns by 50 percent.

"Our people gave us these results," says TBU President Greg Hughes. "I've seen them in action. I have only thanks and admiration for their hard work in helping TBU continuously improve its ability to serve customers."

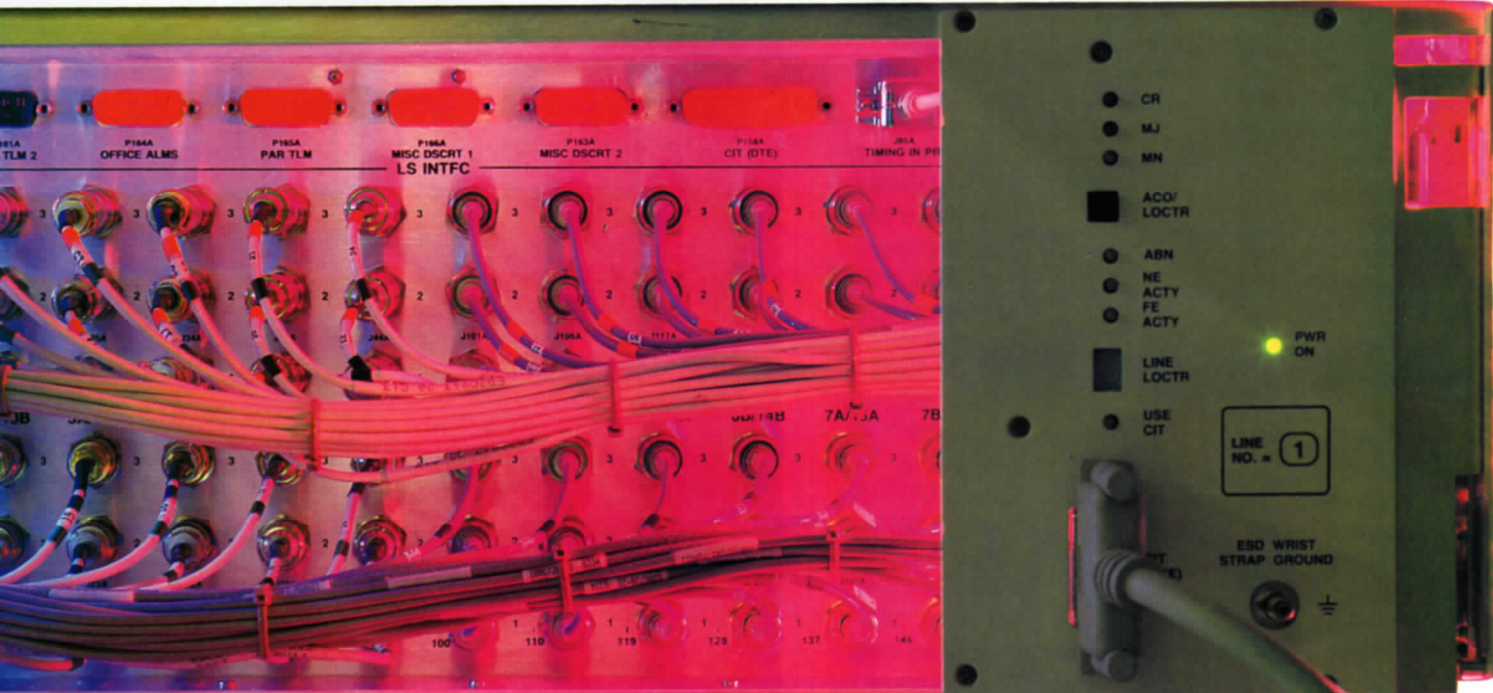
From the start, TBU was focused on fine-tuning its efforts to keep customers satisfied. Then, TBU's customers were largely the RBOCs and AT&T itself. Now, TBU has customers around the world: local exchange and

interexchange carriers; private network providers; state governments, the federal government and government-owned telephone companies throughout the world; competitive access providers; cable television companies and cellular service providers. But TBU's focus on quality and customer satisfaction hasn't wavered.

TBU's products are manufactured at the Merrimack Valley and Oklahoma City Works. The products include:

Subscriber Loop Carrier (SLC) Systems, the central connection points between a customer's telephone and the local telephone company;

Digital Access and Cross-Connect Systems (DACS), switches that automatically connect transmission channels to set up spe-



## THE ENEMY: BACKHOE ATTENUATION

At least a half dozen times a year somewhere in America, a buried AT&T cable is accidentally severed. The culprit is usually a backhoe operated by a power company or public-works department or construction company.

The engineers responsible for maintaining AT&T's network, therefore, whimsically call all such cable cuts "backhoe attenuation" (an engineer's word meaning "to weaken"). And until 1992, cuts could spell disaster, like the one in November

1988 that knocked out communications between New York and Washington for 16 hours.

AT&T's *FASTAR* automatic restoration system has made such outages a thing of the past. TBU plays a key role in *FASTAR*.

The unit's DACS

III-2000 digital access and cross-connect system, which ordinarily connects high-capacity circuits at junction points along a cable route, can create a detour around a cable automatically. The system's software capa-

bility allows *FASTAR* to restore 100 DS3 circuits—more than 67,000 voice lines—in five minutes.

DACS' performance was proved recently in two major cable interruptions. In the first instance, a bolt of lightning stuck a fiber-optic cable near Picayune, Miss., knocking out service between

Hattiesburg and New Orleans. Traffic was restored in five minutes. Then a local phone company crew severed a cable between Flagstaff, Ariz., and Las Vegas, Nev. *FASTAR* switched to alternate routes in less than three minutes.

cial service circuits;

Digital Multiplexers (DDM), the equipment that combines telephone signals for high-speed, fiber-optic transmission; and

Lightwave Digital Transmission Systems (FT-2000 and FT Series G), high capacity fiber-optic communications systems.

In addition, within the last several years, TBU has established joint ventures in China, India and the Commonwealth of Independent States (formerly Russia) to support its growing international presence. And TBU has employees in Spain, the United Kingdom, Ireland and the Netherlands.

The key to TBU's success has been "empowerment" — giving workers the information and access they need to do their jobs, and the authority and responsibility to take immediate

action to meet the unit's quality goals.

Part of the success in empowerment is a result of the day-to-day partnership that has been forged between management and the unions representing employees at TBU's factories. The Quality of Work Life (QWL) program at Merrimack Valley illustrates this partnership, as does the effort Jack McKinnon, Transmission Systems vice president, has made to spend quality time—in the best sense—with union and management employees.

"Jack has always looked on us not as labor or management, but as coworkers," says Joe Belanger, president of CWA Local

1365 at the Merrimack Valley Works. "I'd like to maintain that relationship. We've gained trust in each other, and as a team have learned the importance of our customers, whether they're in the U.S. or halfway around the world. And that's a lesson worth learning."

At the Merrimack Valley Works, one of TBU's most ambitious goals is to improve hardware quality and reliability to the point that, by the end of 1995, only one in 10,000 circuit packs is returned.

## FINDING QUALITY BY LOOKING FOR IT

In May 1991, a group of secretaries at Merrimack Valley saw a potential problem and decided to do something about it.

What Carole Sarcione, Ellen Scioletti, Sonia Tatarka and Anne Wiggin saw was that TBU's international business was increasing rapidly. By itself, that wasn't the problem, but the lack of information about business protocol and customs available to TBU executives, sales representatives and product managers who were pursuing the international business was.

"AT&T is expanding globally, and we felt we could really lose a lot of business if people here don't know the customs overseas," Sarcione says. "We didn't want that to happen, and we thought we could help."



**Carole Sarcione**

And help they did. They formed the PQMI International Customs Team, which surveyed potential users to see what kind of information was needed about what countries. Then they looked at what information was currently available and began to fill in the gaps.

The result of their efforts is the International Resource Center now located in the library at Merrimack Valley. Today, the Resource Center has profiles on nearly 50 countries, as well as travel guides, video and audio language tapes and other reference materials. The team

has also identified 325 people who speak another language and are willing to interpret or translate.

Perhaps the best result of all is

expressed by Sarcione when she observes: "My thinking has changed. When I see a problem, I think, 'I see a good quality story here; this can be resolved.' Whereas I used to think, 'This is a problem; I can't do anything about it.'"

In all, more than 8,000 TBU employees currently serve on over 860 quality teams. The number is growing, in part as workers like Sarcione suggest new teams be formed to resolve new challenges. "It really has made a big difference here," she says, "and I see other people thinking this way as well."



### Milestones in Quality / AT&T Transmission Systems

Bonnie B. Small Quality Award 1988, 1989, 1990	AT&T Chairman's Quality Award 1991, 1992	AT&T Network Systems Vision Award 1991, 1992	ISO 9000 Registration* 1992
--	--	--	-----------------------------------

"Any time a customer sends a product back, for whatever reason, it's our fault," says Ed Crane, test strategy manager and leader of the group that designed the 1-in-10,000 measurement system three years ago, when the return rate was 120 in 10,000. "We accept all responsibility for the problem and look for ways to prevent it from happening again."

TBU has launched the assault on defects on all fronts. Bell Labs product designers and factory engineers review all aspects of product design, manufacturing processes, components and software to resolve quality issues and to get ahead of problems before they're built into a product.

Ed Domenech, a production associate on a team working on the 1-in-10,000 objective, notes that the team found 42 defects in the month its study began. Within five months, the number had plunged to two. "Now everybody wants to be on the team," Domenech says. "They know that quality is important to the company. Management takes quality seriously—and we can make changes."

TBU employees are also monitoring equipment in two dozen customer locations to see how the products perform in "real time," and to react quickly if a problem occurs.

At TBU's Oklahoma City Works, workers use an approach called Total Quality Control, or TQC, to solve problems with a stream-

lined, team-based management structure. In three years, more than 120 teams have identified nearly 4,000 problems, from inefficient work processes to product errors, and corrected nearly 3,500 of them.

"TQC is not a program, it's a process," says Pete Gannon, Manufacturing vice president of the Oklahoma City Works. "It must be implemented slowly, and allowed to evolve over several years. While we are only three years into TQC, the ideas it has spurred have improved our systems and made us more competitive."

For example, Carlene Coyle, a production checker, can recall when correcting a manufacturing error could be delayed because the engineer responsible for a circuit pack couldn't be located quickly. "We brought in our TQC team and invited the engineer to sit in and work with us," she says. "Before, it sometimes seemed like you were lost out there. Now you know how to get an answer—and a solution."

The result: The Quality Index at the Oklahoma City Works through 1992 is four times better than standard customer expectations.

"Because quality is such a priority, great emphasis is placed on early prevention," says Pete Gannon. "If a process isn't operating within quality guidelines, it's stopped until corrective action is taken."

"Using Baldrige guidelines, we've learned a lot about what our customers want and expect from us," says Lou Monteforte, TBU quality manager. "And we have no doubt that we'll learn more as we try to give them the excellent products and services they deserve."

## The TBU/Bell Labs Connection

The goal of TBU's Achieving Product

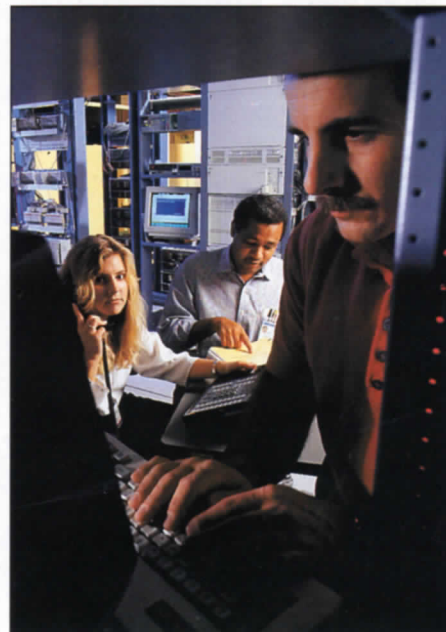
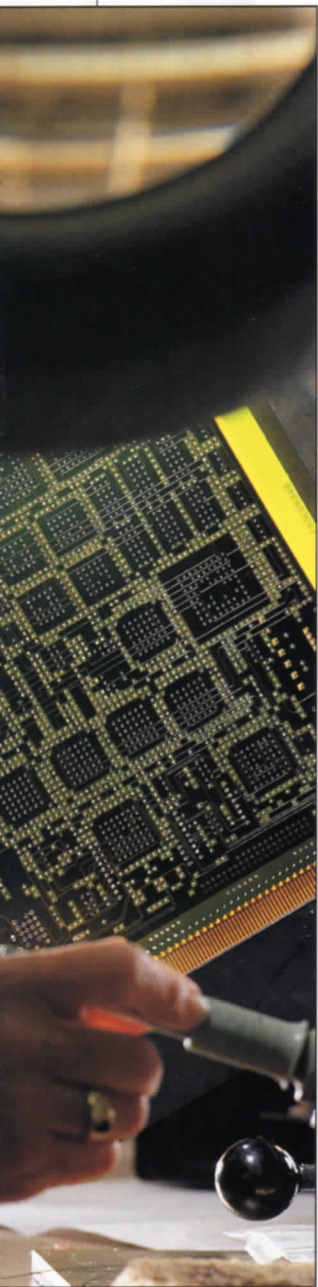
Excellence (APEX) teams is to develop products faster while improving the processes used to take those products from concept to the marketplace. Bell Labs product developers are examining every part of the product development and manufacturing process, with

an eye toward improving every step in the process.

Each APEX team represents a subprocess within the total Product Realization Process (PRP), such as Front End Process, Requirements and Architecture, Software, Integrated Circuits, Circuit Packs, Equipment, Systems Verification, Product Delivery

and Project Management. Teams include subject matter experts that cross multiple products and functions within the business.

Over the last four years, APEX teams have been responsible for reducing by more than 50 percent the time it takes to develop and launch a new transmission system.



Carmen Sainz, far left, works on circuit board assembly at Merrimack Valley; Maddie Carrier operates a fork lift in a store-room there; and Janet Taylor, Joseph Cherestal and Vic Meola are in the Customer Advocate Service test lab.

Customer-Supplier Quality Program 1992, Certification by Bellcore

Massachusetts Quality Award 1992

Malcom Baldrige National Quality Award 1992

# QUALITY

means customer  
delight: in services

## UCS IN A NUTSHELL

### AT&T Universal Card Services

(Part of Communications  
Services Group)

**Headquarters:**  
Jacksonville, Fla.

**President:**  
Paul Kahn

**Chief Quality  
Officer:**  
Rob Davis

**Launched:**  
March 1990

**Employees:**  
2,530

**Satellite Offices:**  
Columbus, Ga.  
Houston, Texas  
Salt Lake City, Utah

**Product:**  
Combination calling  
card and general-  
purpose credit card  
accepted by 10 mil-  
lion merchants in  
the Visa/MasterCard  
systems

**"The best way to  
delight customers  
is to delight the  
associates who  
work here."**

— Rob Davis  
Chief Quality Officer





**B**efore they begin working for AT&T Universal Card Services, new associates go to the movies. The name of the picture they see says everything about the unit's attitude toward quality: It's called "Delight Makes the Difference." Delighting, rather than just satisfying, customers has been Paul Kahn's goal since he became president of UCS before its launch in March 1990. "Simply satisfying your customers' needs is not enough," the executive says. "You've got to distinguish your service from the run-of-the-mill; you've got to absolutely 'Wow' your customers."

And certainly UCS has set itself apart. Entering a mature and saturated marketplace of ho-hum credit cards, AT&T Universal Card Services received 270,000 telephone calls on

its very first day. In less than three years, it has become No. 2 among the 6,000 competitors in its industry, with more than 10 million accounts and 15 million cardholders. Modeling the unit's management and operations on the Baldrige Award criteria, Kahn's announced goal was to win the Baldrige Award in six years — a goal UCS met three years ahead of schedule.

The AT&T Universal Card, a combination credit card and telephone calling card accepted by the 10 million merchants in the Visa and MasterCard systems, capitalizes on AT&T's proud name, but that doesn't explain its growth. Monthly surveys of credit-card holders, including holders of cards issued

by UCS's competitors, consistently rank the AT&T Universal Card on top in each of eight categories of customer satisfaction.

The crucial reason: UCS's associates are empowered to make on-the-spot decisions to delight their customers. Their success is measured in the success of the Universal Card — and in the volume of compliments UCS associates receive:

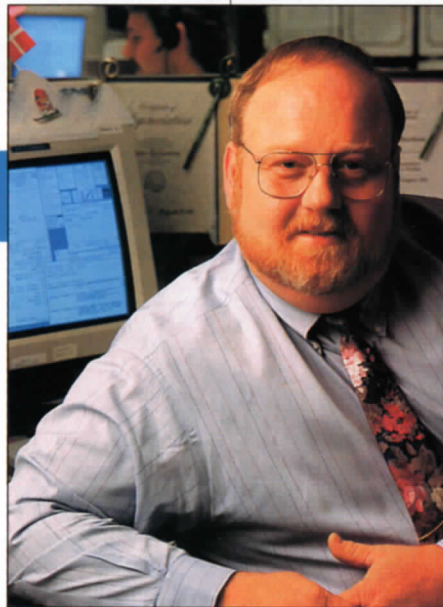
■ A family's vacation in New York City took a turn toward disaster when the bag containing their airline tickets, cash, credit cards and tickets to a Yankees game was stolen. The customer called UCS to arrange for a new card, but Associate Tom Swanson didn't stop with closing the cus-

## THE DETECTIVE

Ed Richardson is an AT&T Universal Card Services associate, not a private investigator, but when a cardholder with Alzheimer's disease got lost,

Richardson turned Sam Spade and tracked her down.

The woman had disappeared in a strange city while on vacation. Local police couldn't find her. Richardson received her hus-



© Peter Vidor

such calls to come to him, even if he was off-duty.

Five days later the call came, and the merchant verified that the woman seemed confused. Instantly Richardson conferenced the call to the woman's husband and the local police. A medical team was dispatched, and he — and UCS — earned the gratitude of a distraught family.

Later the woman's husband called to thank Richardson for his help. "He was quite emotional — he was crying, actually," Richardson recalls. "He gave AT&T Universal Card total credit for finding his wife, and I give total credit to the entire team. It was just luck I took that first call. We could have gotten the same result from anyone in the company."

band's call to UCS asking whether she had made any recent purchases. She hadn't, which is where the story would have ended for most credit card companies. But not for UCS.

After verifying the man's story — to make sure the woman suffered from Alzheimer's, and wasn't a victim of domestic violence hiding for good reason — Richardson put a block on the woman's card, so if she tried to use it the merchant would have to call UCS. He arranged for any



tomers' account and dispatching a replacement card for overnight delivery. He called the customer's hotel, authorizing the family's stay that night; the airline, to replace the stolen tickets; and, most unexpectedly, Yankee Stadium. The customer didn't report who won the game — but he did report that AT&T had won his family's deep gratitude.

■ When an ATM machine in Paris gobbled up a customer's Universal Card one Saturday afternoon, Customer-Relations Associate Elizabeth Morrison asked the American Embassy to take the man to one of the few banks open at the time and vouch for him so he could get emergency cash.

■ A cardholder in Washington, D.C., spent a day and a half phoning for tickets to a popular rock concert, only to have her

AT&T Universal Card declined because of a system authorization problem. When she called Larry Banks to complain, the card-member services associate began placing a series of calls to the Washington ticket agency. When he finally got through, the agent refused to take the authorization. Saying, "I'm not going to hang up until my customer has tickets," Banks finally got to talk to a supervisor — and the cardholder got to attend the concert.

Giving its employees responsibility for ensuring customer satisfaction — and the authority to cut through red tape to achieve that goal — is only part of UCS's strategy to become a leader in an industry that long has practiced "business as usual."

The AT&T Universal Card also charges

much less interest than the industry average — currently more than three percentage points less. Customers who signed up in the first, or charter, year are guaranteed no service fee for life.

And when UCS discovered it was rejecting one in 10 creditworthy applicants because of poor information from credit bureaus, it pressured them to open their records to consumer review and correction. When UCS was launched the credit-reporting industry's accuracy rate was a dismal 36 percent. Now, less than three years later, it is up to 98 percent, and rising.

If UCS were a separate company, it would be worth an estimated \$2 billion. But it has also excelled at its original purpose, which was to buttress AT&T's core business

## THE PARTNERSHIP

It was a nightmare for users of the AT&T Universal Card — which made it a nightmare for the company.

On a key back-to-school shopping Saturday in September, one of the companies hired by UCS to process merchants' requests for authorization suffered a computer failure. For four hours technicians struggled to restore the system.

During that time, the transactions of 35,000 AT&T Universal Card holders were denied.

Although the failure wasn't UCS's fault, UCS customer associates began a Herculean weekend, authorizing charges manually. The unit's senior managers convened on Sunday and drafted a letter

of apology, signed by President Paul Kahn. By Wednesday copies had been mailed to each of the 35,000 cardholders who had been inconvenienced, apologizing and enclosing a \$10 service guarantee certificate. The result was a flood of mail complimenting UCS for its concern, rather than criticizing it for the lapse.

And because partnership with vendors is one of the key elements in providing top-quality service, the credit authorization company whose system had failed agreed to pay the half-million-dollar cost of the certificates.

"We've set performance standards for our vendors and virtually all have signed on in partnership with us," Kahn says. "When vendors aren't willing to join us in our quest for quality, we drop them."



Paul Kahn at UCS's Jacksonville, Fla., headquarters.

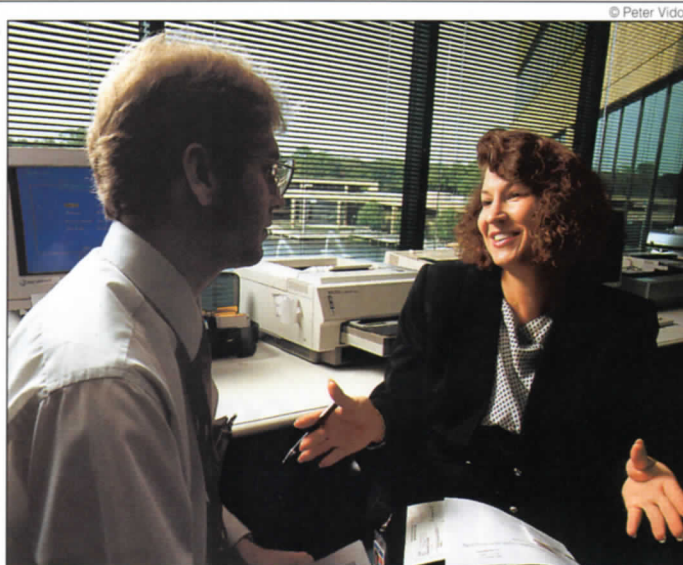


A "top down" view of, clockwise from lower left, Patricia Buckley, Richard Mantz, Karen Scott and Donald Delgado.

of long-distance calling. In 1991 alone, UCS cardmembers increased AT&T calling card usage 40 percent.

Every element of UCS's success, however, ultimately can be traced to its people. "The best way to delight customers is to delight the associates who work here," says Rob Davis, the unit's chief quality officer. "Our commitment is to be the best place to work. UCS people treat our customers gorgeously — just as UCS people are treated."

And UCS people agree. Customer Associate Derrick Pierre says: "I do feel like we're empowered. They give us training, and then a free hand to make the judgments we need to make in order to help the cardholder. You don't have to look over your shoulder at all."



© Peter Victor

Associates Danny Lee and Julie Eden, left, and, below, the Business Improvement Team. Front row, from left, are Greg Brueland, Linda Swanson and Jean Collins. Back row, from left, are Robert Hughes, Mike Plummer, Holly Harvey and Greg Swindell.



© Peter Victor



## Milestones in Quality

### AT&T Universal Card Services

American Marketing Association  
Edison Award:  
Best New Product in 1990

National Association of Suggestion Systems:  
Performance Excellence Award - 1991

Gold Effie Award:  
Advertising Campaign - 1991

American Marketing Association  
COMPASS Award - 1991

AT&T Human Resources  
Professionalism Award - 1992

AT&T Chairman's Gold Improvement Quality Award - 1991, 1992

AT&T Chairman's Bronze Achievement Quality Award - 1992

Malcolm Baldrige National Quality Award - 1992

# Facts:

AT&T Universal Card Services:

- ▶ Opened its 1 millionth account just 78 days after launch on March 26, 1990.
- ▶ Is No. 2 in the bank-card industry with more than 10 million accounts and more than 15 million cardholders.
- ▶ Has lowered its variable interest rate five times (for a total of more than three percentage points), and currently is more than three points below the industry average.
- ▶ In its first 30 months, averaged 10,000 new accounts a day, or more than 300,000 per month.
- ▶ Has led the industry in helping the three major credit bureaus correct inaccurate consumer information reports; the accuracy rate is now 98 percent, up from 36 percent when UCS began operations.
- ▶ Has ranked No. 1 among credit card companies in the Equitrends Customer Satisfaction Survey two years in a row.
- ▶ Receives and acts on more than 30 times as many suggestions from its associates than the banking-industry average.

# AT&T's TOTAL QUALITY APPROACH

## What Is Empowerment? How Does It Work?

Sometimes it's more important to stop a process than start it. Nobody knows that better than workers "on the line" and they, unfortunately, are usually the least able to call a halt.

But at AT&T's Federal Technical Marketing Center in Silver Spring, Md., "Associates do have the capability of raising the red flag and stopping the line, to say, 'We can't proceed under these circumstances,'" says Mercedes Walton.

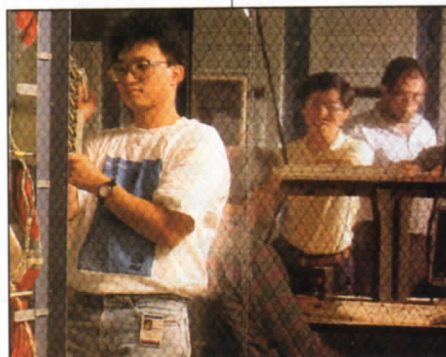
As programs director in the center, which provides telecommunications systems to the federal government, Walton led the team that completely revamped management of the facility over the last two years. Given the goal of developing and

executing a total quality approach, "We turned the infrastructure upside down," she says.

Nearly all the changes resulted in giving workers — now called associates — a greater say in management. Employee recognition, traditionally the boss's job, is now also initiated by associates. "We also instituted the concept of upward appraisals, where the leadership was assessed by their customers, the associates of the organization," she says. Executives pay attention: Their compensation is linked to their evaluation.

Working to diminish traditional lines of hierarchy, the center also empowered its associates to question proposed product

offerings if they doubted the products could be delivered. "There have been lots of instances where associates who were close to the work, and who knew that quality standards couldn't be met, had the power to intervene,"



Walton says.

The whole idea, she says, "is to establish accountability. In a total quality managed enterprise, everyone is accountable to the process — and to each other."

In a "heat tent" at Merrimack Valley are Kenny Leung, foreground, and Bill Perkins, Tong So and Don Dery.

In 1988 AT&T turned itself upside down, putting customers at the top of the traditional structural pyramid. This wasn't just a new organization chart. It crystallized a devotion to excellence in products and services, reflected in AT&T's Total Quality Approach, which rests on six guiding principles:

- The customer comes first
- Quality happens through people
- All work is part of a process
- Suppliers are an integral part of our business
- Prevention is achieved through planning
- Quality improvement never ends

"AT&T is going to be the finest company in the world in the eyes of its customers," says Phillip Scanlan, Corporate Quality Office

## A PROUD TRADITION

AT&T didn't invent quality, but its employees did invent many of the first and best systems for ensuring quality in industrial manufacturing. In an ironic historical twist, many of AT&T's innovations were eagerly embraced by Japan — and the Baldrige Award is, in part, a national recognition of the need to restore this tradition to the United States. For AT&T to become the first U.S. corporation to win two Baldrige Awards closes the quality circle.

Quality began at the Western Electric

SUPPLIER  
PARTNERSHIP

SUPPLIER

The Way it  
Works...  
AT&T's Total  
Quality  
Approach

vice president. "But we can't achieve that goal unless we build a solid foundation on these six critical principles."

These principles aren't linear — the first accomplished before the second is begun — but circular and mutually reinforcing. In particular, customer delight and employee empowerment are where the circle closes. To customers, AT&T is its people. To serve customers, employees must have the resources to provide the quality of product and level of service that fulfills AT&T's promise to be "the most helpful company."

AT&T is a powerful brand name — more powerful now than it has ever been. For example, a consumer survey taken in 1984, at the time of the Bell System break-up, found that only four percent of Americans knew

AT&T provided long-distance telephone service. Today, surveys show that AT&T is one of the half-dozen most powerful brands in the overall U.S. marketplace.

Through other surveys, three key dimensions have emerged as critical to enhancing AT&T's reputation, or brand position: providing the most helpful service, providing innovations that expand people's capabilities, and being worthy of trust. What the three add up to is the overall quality goal of the AT&T enterprise today: *becoming the most helpful company in the eyes of its customers everywhere.*

Employee empowerment is critical to reaching this goal. To this end, AT&T is committing tools and training, delegating increased authority to

its people, and looking at new ways to reward and recognize them for their efforts. And the people of AT&T, in turn, are using their new resources and responsibilities to go beyond customer satisfaction and into the realm of customer delight.

"One measure of our success will be when AT&T employees can routinely say they are able to delight our customers on a daily basis," Scanlan says. "Another measure, of course, is customers who say our people are the most helpful they've ever encountered. Someday," he concludes, "other companies will match our progress. But by then we'll have moved on to even higher levels of customer delight. The process never ends."

Company in the early 1920s. Walter Shewhart, the father of statistical quality control, demonstrated that, whereas inspection only eliminated substandard products, statistical methods could be used to increase the number of good products produced. Today, the highest honor bestowed by the American Society of Quality Control is the Shewhart Prize.

Continuous quality improvement was emphasized by a one-time worker at Western Electric's famous Hawthorne Works, Joseph M. Juran, who embarked on a distinguished consulting career and was subsequently awarded Japan's Second

Order of the Sacred Treasure. Quality by design can be traced to George Levenbach at Bell Laboratories and a colleague in the Netherlands in the 1940s and 50s. Quality by design's emphasis on integrating final quality into every element of production has become a virtual model in Japan — as well as an inspiration for the Baldrige Award.

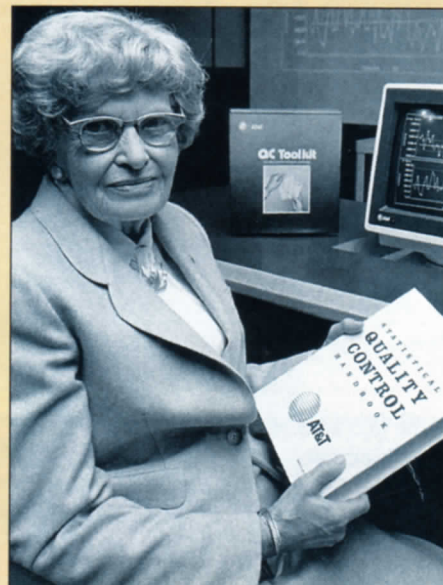
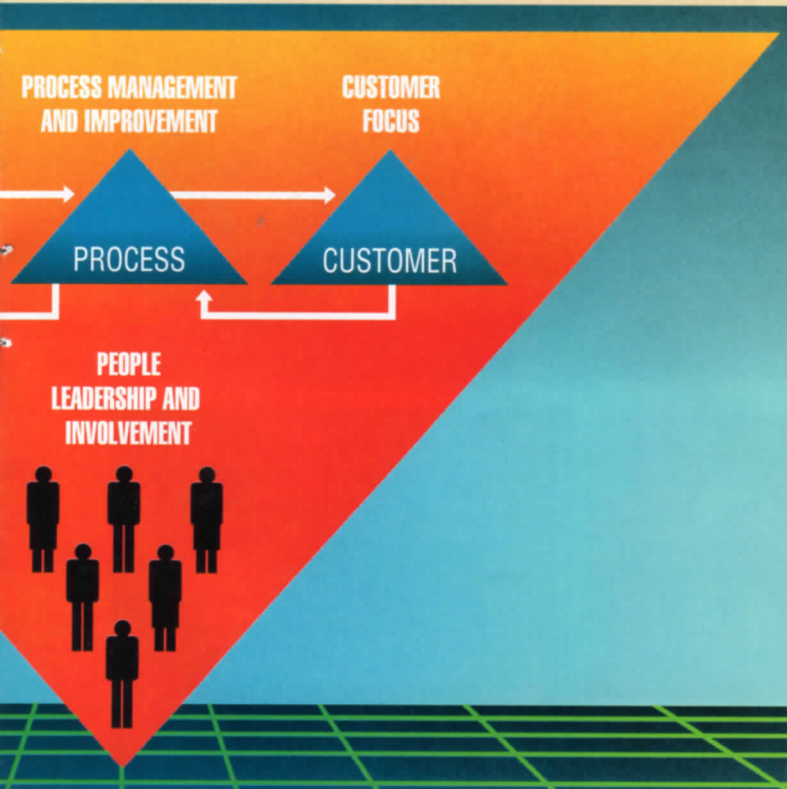
Those who think AT&T wrote the book on quality are right: Bonnie Small was leader



of a team that in 1958 published the Western Electric Statistical Quality Control Handbook. AT&T has replaced Western Electric in its title, but the book, considered the definitive text in its field, is

still in print and more than one million copies have been sold.

The AT&T Quality Library in Berkeley Heights, N.J., has books on quality for sale. For more information, call 1-800-432-6600.



Walter Shewhart, top, and Bonnie Small.

# PEOPLE

## behind the quality

### What Others See At AT&T Major Awards Received in 1992

Business Unit	Award	Presented by	For
AT&T American Transtech	"Top 50" Award	Telemarketing magazine	Service quality
AT&T Bell Laboratories	Technological Innovation	Research & Development magazine	Product quality
AT&T Corporate	National Medal of the Arts	President Bush	Community service
AT&T Corporate	No. 1 in "Diversified Services"	Fortune magazine	Business leadership
AT&T Corporate	Business Leadership Award	National Minority Development Council	Community service
AT&T Power Systems	Shingo Prize for Excellence in American Manufacturing	Utah State University College of Business and five quality associations	Product quality
AT&T Business Communications Services	Best Overall; Best Technology in Long-Distance Carrier Service	Data Communications magazine	Service quality
AT&T Business Communications Services/General Business Systems	AT&T rated First in Long Distance in "Best of Everything"	Financial World magazine	Service quality
AT&T Consumer Products	Vendor Award of Excellence	GTE Telephone Operations	Customer satisfaction
AT&T Network Systems	Vendor of the Year	GTE Telephone Operations	Customer satisfaction

In the UCS cafeteria in Jacksonville, Roosevelt Galloway, Melva Wilson, Cedric Palmore and Pat McKinnon relax at lunch.



Where AT&T has achieved excellence, teamwork has been key. Every day, throughout the company, teams confront and resolve myriad challenges. Here are three examples:

■ In San Antonio, Texas, nearly 1,000 customer representatives staff the International Account Management Center, helping customers in English and a host of other languages with everything from subscribing to new services to resolving billing disputes. The Center is part of the Consumer Communications Services unit.

In the summer of 1992, Kenneth Jackson, facilitator of the Customer & Competitors Team at the center, was called upon by the International Unit — his internal strategic business partner — to help develop a new product for international callers.

What emerged is AT&T's very successful Special Country Plan. The Center was well aware of AT&T's long-distance rivals' promotions, which offered discounts on frequent calls to the same number overseas. The promotions are targeted at people in America with strong family ties abroad. But the San Antonio people knew that what customers really wanted were discounts to their native land, so they could talk to a number of family members and friends, not just one. The AT&T plan gives an automatic 15 percent discount to the most frequently called country.

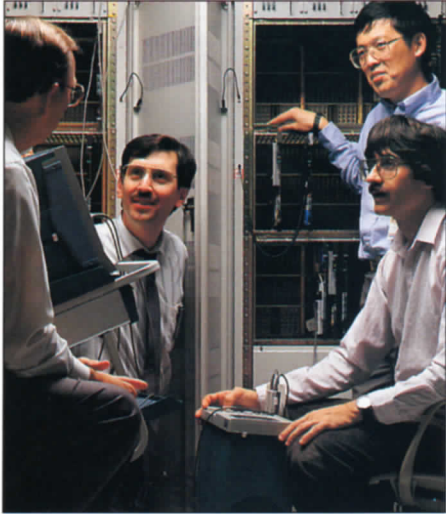
"This has just been fantastic," Jackson says. "This is one time the product was designed around the ideas of the people talking to customers. I think what's most thrilling to people here is that they see some of their input being put into effect."

■ In Global Business Communications Systems, which sells and services office telephone systems, Chief Counsel Claire Calandra oversaw lawsuits brought against the company by unhappy customers. "Not only is it expensive to have a lawsuit," she notes, "but you lose that customer."

At her suggestion, the unit formed a quality team in the spring of 1992 to investigate the matter. It found no clearly articulated policy for dealing with customer disputes; insufficient processes to manage resolution; and certain procedures that made it difficult for local sales and service offices to resolve disputes short of litigation. By summer's end, all three problem areas had been addressed and, the lawyer notes, "We saw a very steep decline in customer litigation, even during the time we were doing this work."

"It was a very valuable process," says Calandra, who since has moved to the International law group. "It met the concern over not only the cost (of lawsuits), but over

© Peter Vidor



© Bruce Wodder



the cost to the company in terms of customer retention rate and revenue.”

■ The government of Taiwan, by policy, relies on three telecommunications vendors. Back in 1989, AT&T’s position in the Taiwanese market was threatened by reliability problems with switching equipment.

“We were averaging 25 system interruptions per central office per month,” Michael Kwan recalls. “The customer’s goal was less than two.” Kwan is a Bell Labs supervisor in the international switching customer business unit in Naperville, ILL.

Kwan established a quality team with representatives of the office of the Director General of Telecommunications of Taiwan and AT&T’s Switching Systems business unit. “The

customer told us in the middle of 1989 that it wanted its performance goals met by the end of the year. We met that goal,” he says.

But the quality team didn’t stop. By the end of 1990, the failure rate was down to an average of 0.5 interruptions. By the end of 1991, it was down to 0.2. “That’s about 10 times better than the customer’s expectations, after two years’ effort,” Kwan points out.

Correcting the problems identified in Taiwan boosted the product’s overall quality, and was a high priority in the Switching Systems unit. “I was a member of the Customer Support Team,” Kwan notes, “and basically I served as an advocate for Taiwan customers. I took their input and translated it into a quality improvement effort.”

### The AT&T Chairman’s Quality Award

Fittingly, the Chairman’s Quality Award is modeled on the Baldrige Award criteria to help business units use these demanding standards to improve performance.

Seven business units and divisions—AT&T American Transtech, AT&T Capital Corporation, AT&T Paradyne, Contract Services Organization, Information Management Services, Intellectual Property division and Operations Systems—received special recognition at the AT&T Quality Conference this year for having made substantial progress over the last year.

There are four levels of achievement — Crystal, Bronze, Silver and Gold — and three of improvement — Bronze, Silver and Gold. The 1992 winners are:

#### Bronze Achievement Award

AT&T Transmission Systems  
AT&T Universal Card Services

#### Gold Improvement Award

AT&T Universal Card Services

#### Crystal Achievement Award

AT&T Consumer Communications Services  
AT&T Consumer Products  
AT&T Switching Systems

#### Bronze Improvement Award

AT&T EasyLink Services  
AT&T Business Communications Services  
AT&T Consumer Communications Services  
AT&T Consumer Products  
Government Affairs  
AT&T Transmission Systems

Here, there and everywhere — people make the difference. At Bell Laboratories in Merrimack Valley, above, are Jeff Saunders, left, Charlie Crue, D.Q. Li, standing, and Dominic Dominijanni. Center photo is Basking Ridge-based Claire Calandra; and at left is UCS associate Elizabeth Morrison.



EDITOR  
Victoria Memminger

WRITER  
Timothy Middleton

DESIGN  
Steve Phillips Design, Inc.

© AT&T 1992

AT&T service marks  
and trademarks in this  
publication are identified  
in italics.

AT&T  
295 N. Maple Avenue  
Basking Ridge, N.J. 07820



Printed on  
recycled paper

**FRONT COVER:**

Front to back, Cheryl  
Brown, UCS; Maryann  
Patzke, Merrimack Valley;  
Mac Hardy, UCS; Jeff  
Kysar, Oklahoma City  
Works; Sandra Johnson,  
standing, UCS.

**BACK COVER:**

Front to back, Pam Oski,  
Merrimack Valley; Jerry  
Cloud, UCS; Cherie  
Ressler, standing, left,  
UCS; Bernarda Bisono,  
Merrimack Valley; Phil  
Rubin, Bell Laboratories,  
Holmdel, N.J.

