AVNET®

AVNET®

FIFTY YEARS OF MAKING HISTORY

50 YEARS OF MAKING HISTORY

ABOUT AVNET

TAKING TECHNOLOGY TO MARKET FOR 50 YEARS

Happy 50th anniversary! Incorporated in 1955, Avnet is a leading global distributor of electronic components, computer products, and technology services and solutions. From cell phones, video games and computers to automotive instrumentation, test and measurement devices, automatic teller machines, and avionics and medical equipment, Avnet helps the world's technology manufacturers get their products to market quickly, efficiently and profitably. Avnet also specializes in integrating and installing computer networking and information technology systems. Through its premier market position, Avnet provides a breadth of capabilities helping partners accelerate growth and manage costs, including warehousing, inventory management, marketing, distribution, physical value-added services like assembly and programming, engineering design, logistics and other supply chain solutions. The company's innovative culture and entrepreneurial spirit, coupled with its commitment to customer service excellence and strong business relationships, assure customers and suppliers they have chosen the right partner. AMD, Hewlett-Packard, IBM, Intel, Microsoft, National Semiconductor, Texas Instruments, Xilinx and more than 100,000 other companies put their trust in Avnet. With the acquisition of Memec, Avnet will generate in excess of $13 billion in sales annually in 69 countries. Avnet's global scope and scale, talented people and focus on value-based management ensure it will remain an industry leader.

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And to our customers, suppliers, employees, shareholders and board of directors, thank you! We couldn't have done it without you.

50 YEARS OF MAKING HISTORY

Founded 1921 · Incorporated 1955

AVNET®

FOREWORD

BUILT ON FAMILY VALUES

When the chairman of Avnet, Inc., Roy Vallee, asked if I would be willing to introduce a book detailing the history of the company, I was both flattered and challenged. Challenged by what words I could use that might give a perspective to the phenomenal growth and success Avnet, Inc. has enjoyed. As a director and producer of more than 50 motion pictures and television shows, and most recently the Tony Award winning *Spamalot* on Broadway, my expertise in the world of electronics is limited. The only words I could offer would be a personal perspective on the formative years of the company.

As you may know, the company started with my grandfather, Charles Avnet, selling radio parts in downtown Manhattan. His son and my father, Lester Avnet, entered the business right after World War II. He saw the possibilities in this new field, "electronics." He convinced his brother, Robert Avnet, and my grandfather that the future of the distribution business was limitless. And limitless it has proven to be. My father brought to the company more than a lifetime devotion to its success and innovation in business practices. He also brought a philosophy that was probably an offshoot of an expression his mother was fond of recounting, "Good, better, best, never let the better rest until the better's best."


Newsday LONG ISLAND
Wed., April 26, 1961 Vol. 21, No. 198

We're Going to Be Biggest, Going to the Top—Avnet

By Robert A. Caro

"I'll let you in on a secret that isn't a secret any more —we're going to be the biggest! We're going right to the very top."

Lester Avnet meant that prophecy literally and the dynamic president of Avnet Electronics Corp. is having the time of his life putting in 70 hours a week to make it come true. For Avnet "We" means the company that carries his name.

As he talked in the paneled study of his home at 188 Kings Point Road in Great Neck he fingered a stack of papers — home work he brought with him from his 26 Sunbury office in the headquarters of the company which now spans the country.

That Avnet's prophecy is no idle boast is shown by the company's record. It opened on the American Stock Exchange in October, 1959, at 17. The following May it has split 2-for-1. It moved to the conservative New York Stock Exchange where it has hit a peak of 44¾.

In fact, with the blessing of several analysts, Avnet Electronics became the darling of the Big Board with a total turnover of 528,300 in a fortnight of mid-April. It was the fifth most active issue one week and fourth the next. It closed yesterday at 39½ up 1½ to recover the major part of the loss taken Monday when the market took its sharpest drop since September.

In 17 years Avnet Electronics has been transformed from just another light-industry, family-owned company into a publicly-owned corporation which last year grossed $92.3 million on which it cleared $1 million net profit. Avnet confidently predicts the company will run its annual sales up to $100 million in another five years or so.

The company's meteoric rise started in 1944. The firm then was headed by Lester's father, Charles Avnet. It was doing well but far from spectacularly, manufacturing radio kits and auto antennas. In that year however the younger Avnet persuaded his father to switch the company's main emphasis to electrical connectors.

These, Lester explained "are a sort of exotic version of common, ordinary, household electric lamp and appli- ance plugs." The Avnet varieties are used in defense and industrial products to couple multiple circuits, and there are some 70,000 varieties.

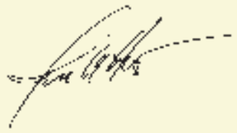
They are used in quantities in the electronics and the missile industries. As these boomed during the '50s, so did Avnet. From a single plant in Westbury the company expanded, coast-to-coast adding facilities in Los Angeles and Sunnyvale, California and in Chicago, and sales and engineering offices across the nation.

And as Avnet expanded it diversified, so that now connectors account for only half the company's sales. The other half includes semiconductors, relays, potentiometers, switches, capacitors, transformers, [illegible] tronic components.

If important, or perhaps even more so, is a way of doing business that gave the company a soul, a value system and integrity. That integrity may have started with my grandfather, who paid off debts after the Depression, which was not the norm. Charlie Avnet's name meant something; he would stand by his obligations in good times and bad. It certainly was clear in the atmosphere at the workplace between managers and employees. My father's days as a union organizer in the 1930s made the relationship seamless. He understood what dignity in the workplace meant. It was most obvious in the values implicit in my father's and grandfather's commitment to civil rights and the United Nations, and in their incredible philanthropic efforts on behalf of the arts, education, medicine and Jewish organizations around the globe.

It was not anomalous for my father to invite a class of sixth-graders to a shareholders' meeting. The event garnered tremendous publicity for the company and was educational for the children. It was visionary when he proclaimed in the 1950s that this nascent calculating invention called the computer would irreversibly change our lives. It was his passion for life that made him an incomparable salesman for Avnet, Inc. and attracted a circle of friends that included presidents, governors and senators as well as artists, humanitarians, religious leaders of all denominations, scientists and civil rights activists. The way he led his life set the tone for the business of his business. On a more personal level, it also offered me the opportunity to pursue my dream of making films and having a voice in our cultural landscape.

If asked to define a corporation, I would say it is both what it does and how it does it, what it creates and how that process enriches the lives of those who make the product as well as those who buy the product. In the ephemeral nature of modern society, where values are as fluid as the water that runs down a drain, how a company comports itself is as challenging, or perhaps more challenging, than the numbers in its annual report. I would like to think that in no small measure the values of my father and his family are expressed every day in the conduct of those who do the work of the company that bears his name.



JON AVNET
LOS ANGELES, JUNE 2005

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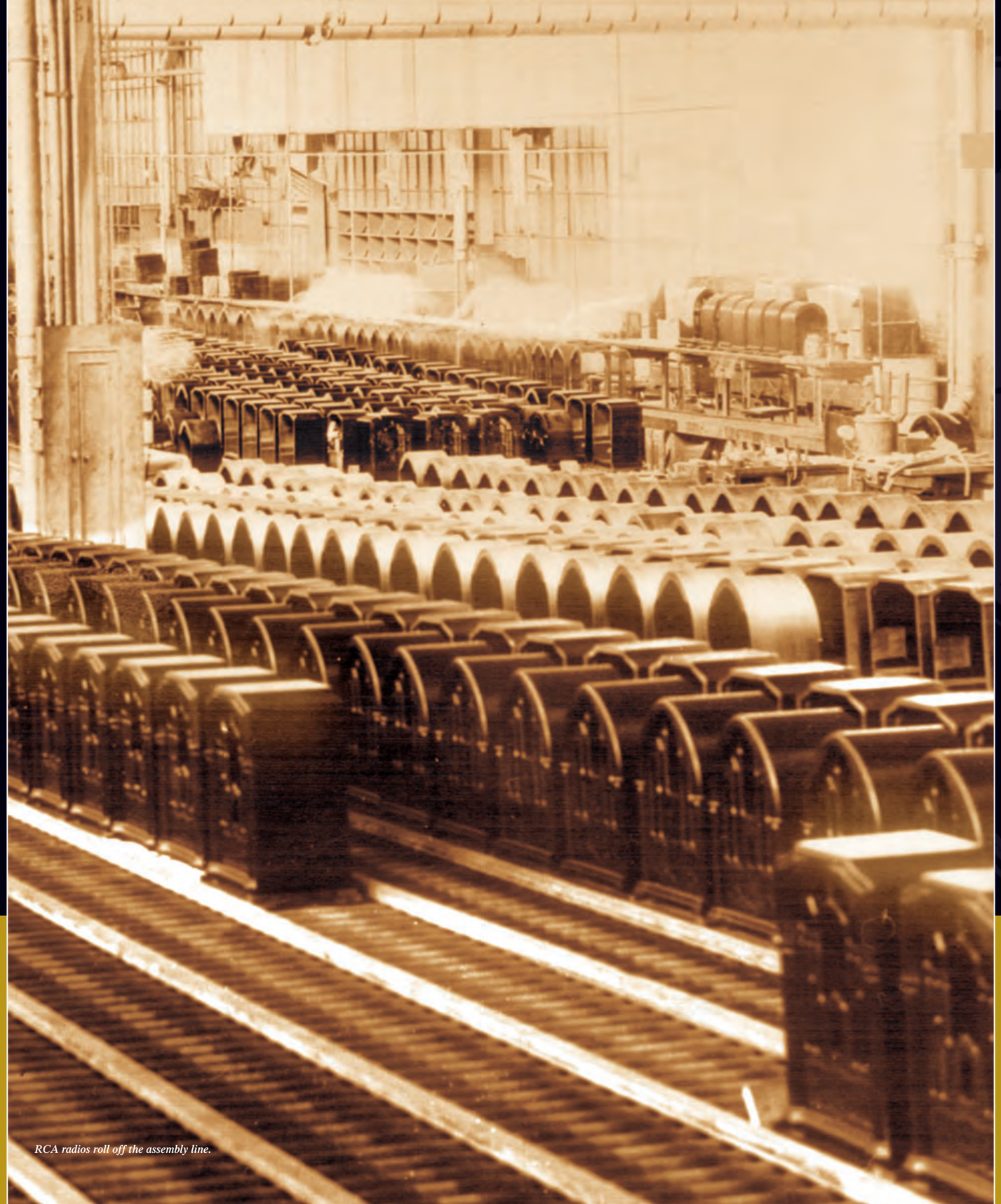


RCA radios roll off the assembly line.

"Many of the industry's early pioneers were drawn to the field of 'radio' because they found themselves fascinated with the mysterious workings of the wonderful wireless… radio planted the seed that would lead these men to foresee the enormous potential in the field of electronics."

– Our Industry Crowd:
The Electronics Experience, 1981

1921-1940

CHAPTER 1

Charles Avnet and the Golden Age of Radio

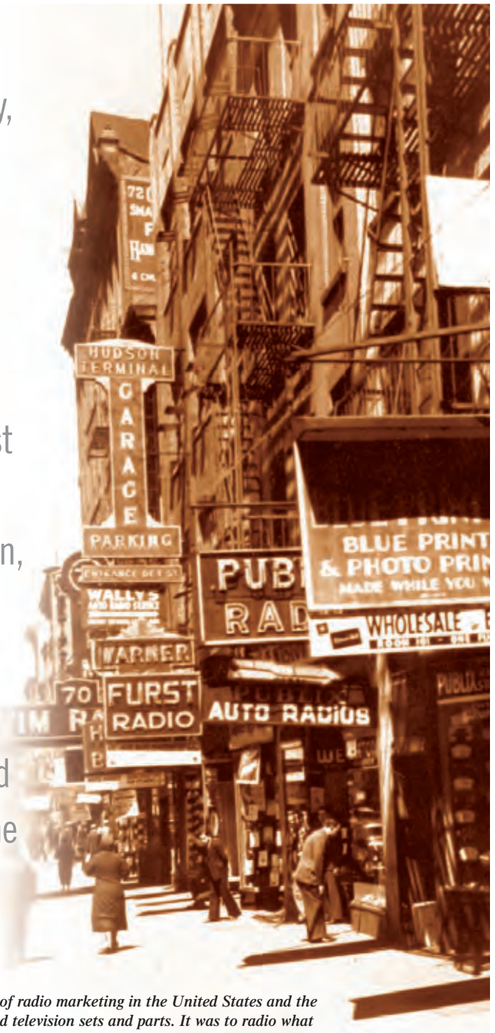
"Good, better, best, never let the better rest until the better's best."

–Helen Avnet

The Avnet family gathers for the 1951 wedding reception of Charles Avnet's son, Norman, now a retired radiologist, and his wife, Roz. Clockwise from top left: Robert Avnet and his wife, Maxine; Joan Avnet and her husband, Lester; Norman and Roz; and Helen Avnet and her husband, Charles.

The Early Years

It was the early 1920s. With World War I a memory, New York City's docks were awash in surplus military and ship-to-shore radio parts. Wireless transmission devices had been a hit with East Coast mariners since 1906, when Reginald Fessenden, marketing his receivers, broadcast a Christmas Eve selection of violin music, Bible passages and Gramaphone records—the first true radio broadcast.



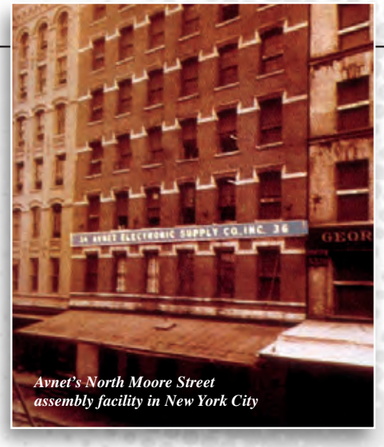
Cortlandt Street's Radio Row, the virtual birthplace of radio marketing in the United States and the world, was the largest single marketplace of radio and television sets and parts. It was to radio what Hollywood was to movies. – Our Industry Crowd: The Electronics Experience, 1981

Amateur (ham) radio enthusiasts, intrigued by what they read in popular magazines like *Modern Electronics*, were putting together crystal set devices, "cats whiskers," of their own from kits. The market for radio components was heating up.

Into this nascent industry came Charles Avnet, a 33-year-old Russian immigrant. He began buying and selling surplus radio parts in 1921, just as the first component stores opened for business on New York City's Radio Row. Rapid advances in technology soon made radios a common sight in American homes—from inexpensive, battery-powered devices with headphones to finely crafted furniture consoles with built-in speakers. The Consumer Electronics Association reports that in 1922, 100,000 radios were sold at an average cost of $50. By 1924, the annual factory dollar volume had multiplied tenfold to $50 million, and there were more than 500 commercial radio stations broadcasting nationwide. The Golden Age of Radio was in full swing, and Charles found himself at the heart of the most exciting industry of the decade.

As radio manufacturing grew, so did the role of parts distributors. From a small store in Manhattan, Charles sold about $85,000 in components his first year in business. In 1929, Galvin Manufacturing Co. introduced the first practical car radio, the Motorola, short for "motor Victrola." Charles capitalized on this development as well, adding automobile antenna assembly and kits to his repertoire and effectively moving from a standard distributor to a value-added distributor putting parts together for sale to consumers.

When the Great Depression hit in October 1929, Charles, like many others, found himself suddenly in debt. In what would prove an astute decision, he shifted his focus from retailing to wholesaling. Radio remained an inexpensive escape for many. The newest novelty, television sets, were making inroads into people's homes. Charles dealt in parts applicable to both. Not only did he pay off all his debts, he realized a modest profit. By making good on his loans, he was building a reputation of business acumen and honesty that would serve his eponymous company well.

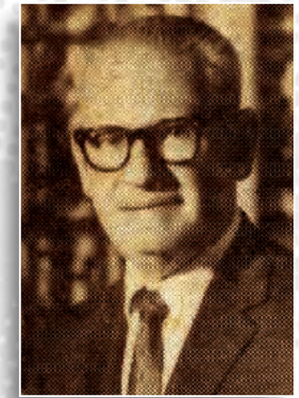


Avnet's North Moore Street assembly facility in New York City

From a small store in Manhattan, Charles Avnet sold about $85,000 in components his first year in business.

CHARLES AVNET
FOUNDER

Charles Avnet's reputation for honest dealing and his insistence on exceeding customers' and suppliers' expectations have been guiding



lights for the company since he sold his first component in the early 1920s. In an interview in *Investor's Reader* in 1962, he said, "The main thing to our business is service and that's what everybody likes. Even when I first began my business, I was the only one to advertise, 'money back without questions.'"

Upon incorporating in 1955, Charles became vice president and treasurer, passing the torch to his sons.

1921-1940 YEAR -TO- YEAR

1918 – The U.S. government lifts its WWI ban on amateur radio stations

1921 – Charles Avnet begins selling radio parts in New York City; Lower Manhattan's Radio Row takes off

1924 – Commercially produced, battery-powered radios are introduced to an enthusiastic audience; half a million sets are sold, a fivefold increase over the previous year

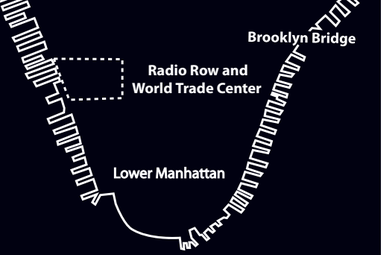
1926 – *Sam 'n' Henry*, soon to become *Amos 'n' Andy*, debuts and will become the longest running show in radio history

1927 – The Columbia Broadcasting System (CBS) is established; its first broadcast of opera and symphony selections is heard on 16 stations in 11 states

1929 – Galvin Manufacturing Co. introduces the first practical car radio, the Motorola; Charles Avnet begins selling automobile antenna assembly kits

1933 – The National Broadcasting Co. (NBC), established in 1926, broadcasts from Radio City at Rockefeller Center; its largest studio can host a 100-person orchestra playing to 1,000 guests

1933 – President Roosevelt institutes his Fireside Chat



RADIO ROW

The end of World War I ushered in the joyful noise of the Roaring Twenties and the Jazz Age, a raucous decade of flapper-fueled Charlestons, crooners' sentimental ballads, the sizzling bands of Harlem and the first notes from swing and big band music pioneers. Into this heady atmosphere the first affordable, mass-produced consumer radios were introduced, expanding the technology beyond the realm of hobbyists. After some initial trepidation sales took off, providing a new medium for musicians, politicians, storytellers, salespeople, athletes and all manner of folk to share their work, wares and wisdom. In and around America's East Coast harbors a brisk trade in radio components blossomed. Just a few strides from the docks of New York City's Lower Manhattan was Cortlandt Street, soon christened "Radio Row."

By the 1960s, Radio Row encompassed six blocks, its milieu an exuberant, cacophonous din of music and street sounds as vibrant as the city itself. More than 300 stores lined its streets — for four decades, the largest collection of radio and electronics stores in the world — with owners proudly and loudly dealing in everything from vacuum tubes, knobs and audio oscillators to hi-fidelity equipment and antenna kits. Sound spilled into the neighborhood from speakers mounted above the doors. People traveled for miles just to experience the energy of the then-famous enclave. It was, as *The New York Times* called it, "a paradise for electronic tinkerers."

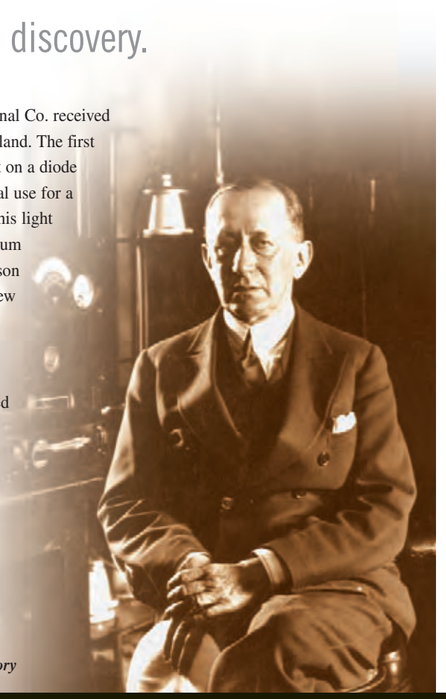
In 1966, a two-year battle royal for the soul of Cortlandt Street came to an end when the New York Supreme Court ruled that the Port of New York Authority could condemn and bulldoze the area to make way for the twin towers of the World Trade Center. The Ajax Wrecking Company demolished the first of 26 vacant buildings in the area soon thereafter. Radio Row was silenced forever.

The Birth of Radio

As inventors like Thomas Edison and Nikola Tesla fine-tuned the transmission of electricity in the late 1800s, others were tackling the theory of electromagnetic waves postulated in 1872. Heinrich Hertz finally detected and produced them 16 years later, and a host of scientists began contemplating what could be done with the discovery.

In 1901, Guglielmo Marconi's Wireless Telegraph and Signal Co. received the Morse code letter "S" transmitted to Canada from England. The first wireless signal to cross the Atlantic Ocean, it relied in part on a diode vacuum tube created by John Fleming. He found a practical use for a discovery Edison accidentally made while trying to make his light bulbs last longer — that the flow of electrons inside a vacuum could be controlled by electronic and magnetic fields. Edison patented the idea but did not pursue it since no one yet knew radio waves existed.

At about the same time, Reginald Fessenden succeeded in transmitting his voice a mile. Four years later he discovered amplitude modulation (AM) and in 1906, broadcast a Christmas Eve selection of music and stories to ships with receivers off the Atlantic coast. Technological advances in the transmission and reception of sound across distance continued apace. An amplifying vacuum tube, the audion tube, was invented in 1912 by Lee DeForest and was the essential component in what would come to be known as radio, a word with its etymological roots in "radiated signals." Peter Jensen came up with an idea for hi-fidelity, or amplifying, speakers in 1915, calling his company Magnavox, Latin for "great voice." By this time, people all over the country were tinkering with radio kits. Almost anyone could install a radio transmitter and send signals.



Guglielmo Marconi in his laboratory

In 1920, Westinghouse set up a studio for one of its popular amateur broadcasters, Frank Conrad, and created Pittsburgh's KDKA, the nation's first commercial radio station. Its first formal broadcast: the Warren G. Harding-James Cox presidential election returns.

In the 1930s, airplanes flew at night guided by low frequency radio directional beams, and aircraft radio phones and car radios arrived on the scene. In just a decade, consumer radios evolved from bulky, handheld models that ran on batteries and required headphones to "boomboxes" with built-in speakers and, as electricity became commonplace in people's homes, furniture-like consoles that plugged into outlets. There was something in every price range and plenty of parts to modify them. Radio Corporation of America (RCA), got its start during those early days as a centralized repository for radio patents. Atwater Kent began manufacturing radios with parts built into fancy wooden consoles. Zenith and JBL were launched as speaker companies. Philco produced portable, home and car radios. Admiral was born as Continental Radio and Television Corp.

By the end of the 1930s, 20 percent of all cars had factory-installed radios. Governments had established untold number of official stations and networks on almost every continent, their citizens even more. From the time KDKA went live in 1920 until World War II began — the Golden Age of Radio — more than 100 million radio receivers had been sold.

1934

1934 – Half of U.S. homes have radios

1938

1938 – There are 50 million radio sets in the U.S., up from 33 million two years prior

1939

1938 – Orson Welles and his Mercury Theatre players cause widespread panic with the *War of the Worlds* radio broadcast

1939 – Radio brings WWII coverage home

TECH REVOLUTION

VACUUM TUBE

By today's standards, there's not much to them, really. A wire filament to release electrons, a metal plate to attract them and an air-free, insulating glass tube to house both. Essentially, vacuum tubes switch electricity on or off and amplify its flow. But when they were invented at the turn of the 20th century (the culmination of a number of scientific advances), they were nothing short of magical, and today are considered the foundation of modern electronics.

By tinkering with a selection of wire or screen grids placed between the filament and plate, scientists found they could add sensitivity and reduce distortion. Vacuum tubes were quickly put to good use; the telephone, talking picture and radio industries were built upon the technology, as were the first modern computers. Unfortunately, like the light bulb on which they were based, they had a tendency to generate heat and lose power. When engineers tried to build complex circuits using vacuum tubes, they quickly became aware of their limitations. ENIAC, the first general purpose electronic computer, was a humongous piece of equipment employing 17,468 vacuum tubes. It pulled enough electricity to power 10 homes yet the tubes were constantly burning out, making it very unreliable.

Although vacuum tubes have been replaced largely by transistors and integrated circuits, they are still in use by megawatt radio stations and in high-end guitar amps and home and professional audio equipment. The technology continues to invite experimentation, with renewed interest in their efficacy for nanotechnology applications in communications devices and flat-panel displays.

Avnet's 24-hour delivery, circa 1959

"Avnet's success is built on its ability to supply connectors on the same day that they are ordered. This specialty keeps the company ahead of much larger concerns."

– The New York Times
March 29, 1959

1941-1959

CHAPTER 2

The Connector Connection

TECH REVOLUTION
CONNECTOR

A connector, in its simplest sense, is a mechanical device that allows electricity to flow from one component or cable to another. There are almost as many kinds of specialized connectors in the world as there are applications for them, and they are integral to every electronic device. In 1959, when Avnet issued its first annual report, there were as many as 70,000 varieties of connectors and 200,000 possible combinations for fulfilling a specific need. Today, Avnet stocks more than 1.5 million types of connectors.

Serendipity in the Shipyard

By the time he took a wartime job as a welder in the Brooklyn Navy Yard, Lester Avnet, who had been working with his father since he was 12, could recognize a good business opportunity when he saw it. And it was, quite literally, scattered at his feet in the form of surplus electronic equipment.

Electronic components became priority defense items as the United States geared up for World War II. Home radio set manufacturing was banned. Component distributors like Charles Avnet turned their full attention to satisfying military and government requests. He opened his first major manufacturing facility on North Moore Street in New York's butter and egg district in 1944 to assemble military antennas. Lester soon persuaded him the future belonged to electrical connectors, which almost every electronic device required.

At the time, it was not uncommon for a connector buyer to wait from four to eight months for delivery, and the Avnets worked diligently to find and deliver the right parts. When the war ended in 1945, high quality military surplus was available for less than one-tenth its original cost. The Avnets stocked up. Once they established a team of trained sales engineers, they began manufacturing connectors of their own as well.

Although radio aficionados sent that market roaring back to life once the manufacturing prohibition was raised, the Avnets set their sights on connectors essential to the military, industrial and emerging computer and electronic data processing machine markets, as well as the heavy electrical equipment used by utilities. When Bendix Aviation, a manufacturer of electronic components not yet back into civilian production, needed sample connectors for its customers, Avnet was able to provide them.

The onset of the Korean Conflict in 1950 boosted the fortunes of those with the right inventory of components for military and government use in missile systems, airplanes and other applications. Bell Labs' invention of the transistor in 1947 was already fueling an electronics revolution, and the U.S./Soviet Union space race and international arms race would send the industry into high gear.

The demand for connectors exploded. Ten years after World War II ended, Charles, Lester and his brother, Robert, had a thriving business assembling connectors to customers' specifications. They incorporated in 1955 as Avnet Electronic Supply Co. with Robert as chairman of the board and Lester as president. Charles took on the roles of vice president and treasurer. In 1956, increasing business necessitated the opening of a facility in Los Angeles to provide more convenient and faster service to the aviation and missile industries, and Robert relocated there. In 1957, Bendix named Avnet an authorized factory jobber and assembler of its electrical connectors, Avnet's first franchised relationship.

The trio was so successful they opened two more assembly plants in Westbury, New York, and Sunnyvale, Calif. The company name was changed to Avnet Electronics Corp., and by 1959, it boasted overnight delivery of custom-assembly connectors to thousands of customers coast to coast. Avnet also sold complementary components like capacitors, fasteners and switches, and early

An Avnet connector assembly facility in 1959

"Few in the electronics industry can top Avnet in the field of connectors. Avnet supplies all orders within twenty-four hours after placement. The company supplies its connectors to every important missile and space-vehicle manufacturer and subcontractor in the country." — The New York Times, March 6, 1960

ROBERT AVNET
CHAIRMAN 1955-1964

With the support of his brother, company President Lester Avnet, Robert Avnet presided over one of the most dynamic periods in the company's history. Not only did Avnet more than double the number

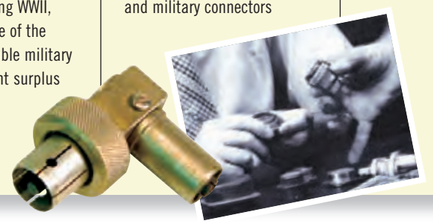
of assembly plants and sales engineering/service locations by 1964, it underwent a metamorphosis from a business devoted to electrical connectors to a holding company with interests ranging from electronic components to record albums.

Robert inspected radio receivers as a captain in the U.S. Army Signal Corps during World War II. He was also a founder of the Albert Einstein College of Medicine.

1941-1959 YEAR -TO- YEAR

1941 – Lester Avnet, working at the Brooklyn Navy Yard during WWII, takes note of the considerable military component surplus

1944 – Lester Avnet persuades his father and brother to turn their attention to industrial and military connectors



1947 – Bell Labs scientists invent the transistor, launching the modern electronics revolution

1952 – Leon Machiz founds Time Electronic Sales; its first franchise is with ITT Cannon

1953 – Varian is the first resident of Stanford Industrial Park, the genesis of California's Silicon Valley

1955 – Avnet Electronic Supply Co. incorporates with Robert Avnet (right) as chairman, Lester Avnet (left) as president and founder Charles Avnet (middle) as vice president and treasurer

1956 – Avnet opens its first West Coast facility in Los Angeles

1956 – Avnet's sales surpass $1 million

1957 – Avnet's Bendix connector franchise is a first for both companies

TECH REVOLUTION

TRANSISTOR

Scientists at Bell Labs had been researching semiconductor elements like germanium and silicon since the 1920s. When the transistor was invented there in 1947 it was revolutionary. Like its predecessor, the vacuum tube, it controlled the flow of electricity in a device, turning it on and off and

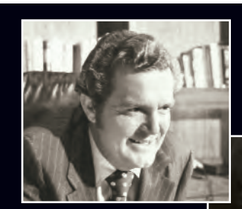
When transistors were first marketed they cost between $5 and $45 to make. Now the transistors on a microchip cost less than a hundred-thousandth of a cent.

modulating or amplifying it. Unlike those bulky, balky components, however, transistors were small, fast, reliable and effective, and they were much cheaper to make. Transistors were first used commercially in telephone equipment, radios, computers and hearing aids in the early 1950s. Today they are found in virtually every electronic device. The three credited with the invention, John Bardeen, Walter Brattain and William Shockley, won the Nobel Prize for physics in 1956.

semiconductor products like silicon Zener diodes, silicon rectifiers and tantalum capacitors. Sales reached $6.4 million, almost double the previous year's revenue. To fund expansion and corner the market on connectors, Avnet celebrated the close of the decade by going public. The company was listed on the American Stock Exchange with the issuance of 175,000 shares of common stock under the symbol AVT.

GROWING UP: Robert Avnet, left, and Lester Avnet, partners with their father in Avnet Electronics Corporation, prepare an exhibit to demonstrate how waterproof their conductors are. Avnet is typical of the smaller companies that have grown and prospered in the electronics field. — The New York Times, March 29, 1959

HAMILTON & MACHIZ



As the Avnets turned their attention to connectors for the industrial and military markets, two other gentlemen, Tony Hamilton and Leon Machiz, were making names for themselves in technology circles, setting the stage for their roles as Avnet CEOs in the years to come.

Firmly entrenched on the West Coast as a buyer for Lear, Tony Hamilton went off on his own in 1957 to start Hamilton Electro Sales. Soon a franchised stocking distributor of General Electric tantalytic capacitors, Hamilton surpassed $1 million his first year in business and $2.5 million the next. He convinced fledgling Fairchild Semiconductor to give him its local semiconductor franchise by placing an on-the-spot order for $50,000. In 1961, he obtained Motorola and Philco franchises as well. Although at the time distributors were limited by suppliers to selling small quantities of one to 99 pieces, the distributor/franchisee relationship would prove profitable to both parties as the technology industry grew.

Leon Machiz joined Sun Radio Parts in 1943 as a sales representative. Two years later, at age 22, he left Sun to found Life Electronics Sales with a friend, fellow sales rep Seymore Schweber. The pair started with a collective $3,600 borrowed from family. They had no office, warehouse or inventory and worked out of a phone booth near City Hall in Manhattan, hawking surplus radio frequency connectors on Radio Row. The onset of the Korean Conflict created a shortage of components for all but military uses, and the partners found themselves in the envious position of being able to supply ITT, a television set manufacturer, all the resistors they could get their hands on for $30 per 1,000—resistors they had purchased for just $10 per 1,000. The pair eventually went their separate ways and founded competing companies. Schweber started Schweber Electronics. Machiz incorporated in 1952 as Time Electronic Sales in New York City and expanded his market with the founding of Electro-Air five years later.

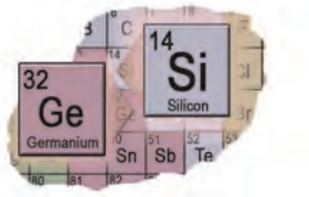
COMPANY SNAPSHOT: 1959

Avnet Electronics Corp.

Sales	$6.4 M
Net Income	$0.8 M

THE 'TRAITOROUS EIGHT'

Present in the sun and stars, and much more conveniently in sand, quartz and clay, silicon makes up more than a quarter of the Earth's crust and is second only to oxygen as our most abundant element. This common substance would prove not only the catalyst for contemporary electronics, it would fuel one of the most notorious mutinies in technology industry history.



In 1955, William Shockley left Bell Labs to found Shockley Transistor. He set up shop with eight of the brightest scientists from the East Coast, including Gordon Moore and Robert Noyce. Shockley used germanium to help create the first transistor seven years prior and was a strong proponent for its use as the material of choice for semiconductor devices. His peers favored silicon and that, coupled with Shockley's reportedly volatile management style, created tension in the ranks.

Two years later, the group left Shockley and in 1958 signed a $1.3 million contract with a New York firm, Fairchild Camera and Instruments, to develop a new process to manufacture transistors as Fairchild Semiconductor. They were quite successful, and Fairchild Semiconductor became the first company to mass produce integrated circuits, an invention for which Noyce and Texas Instruments' Jack Kilby share credit. The industry press dubbed the Fairchild Semiconductor group the "Traitorous Eight."

1957

1957 – The semiconductor industry surpasses $100 million in sales

1957 – The Soviet Union launches Sputnik; the ensuing space race with the U.S. is a catalyst for many important technological breakthroughs

1957 – Tony Hamilton founds Hamilton Electro Sales

1958

1958 – Avnet transfers its East Coast operations to Westbury, New York

1958 – Texas Instruments' Jack Kilby invents the integrated circuit, which incorporates transistors, diodes, coils and wires on one chip; Robert Noyce refines it

1959

1959 – Avnet goes public on the American Stock Exchange as Avnet Electronics Corp.

TECH REVOLUTION

INTEGRATED CIRCUIT

Transistors revolutionized electronics, but science is not known for resting on its laurels. In 1958, Texas Instruments' Jack Kilby realized that all the components that make up a circuit could be produced out of one block of semiconductor material (namely germanium), thus eliminating the need for discrete components and manual assembly.

About the same time, Fairchild Semiconductors' Robert Noyce hit upon a novel idea for connecting all the components on a silicon chip by adding metal as a final layer, and then removing some of it so that the wires needed to unite the components were formed. That improved the manufacturing process tremendously. Kilby won the Nobel Prize in physics in 2000 for the development of the integrated circuit, although both men are widely acknowledged today for the invention. Noyce went on to co-found Intel, one of the largest manufacturers of integrated circuits in the world.

Bites to Bytes: Silicon Valley

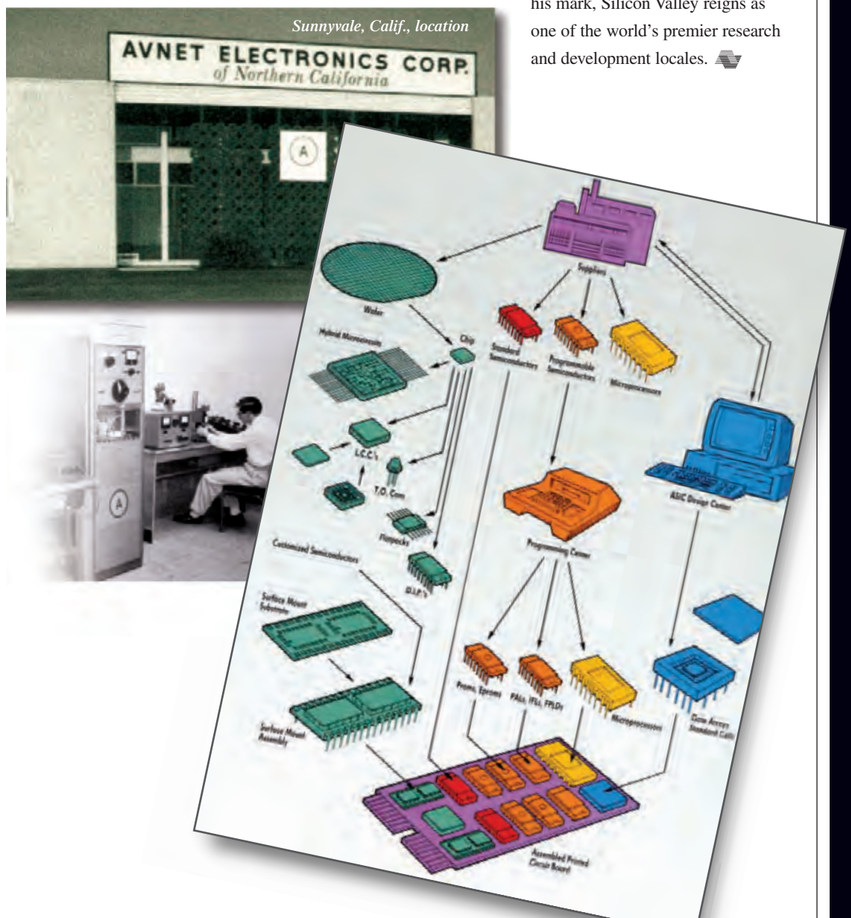
With rich soil and temperate weather, the plains of the San Francisco peninsula have long drawn people into their midst. Once a 300-square-mile Eden of farms, stables and fruit orchards known as "The Valley of Heart's Delight," the area has since proven fertile ground for the world's premier technology incubator.

Electronic News journalist Don Hoeffler christened it "Silicon Valley" in the early 1970s. Its metamorphosis from agricultural center to technology hotbed is credited largely to Stanford University and one of its professors, electrical engineer Fred Terman.

Concerned about the lack of opportunities for graduating engineers on the West Coast and wanting to improve the university's prestige, Terman decided in the 1930s to grow technology businesses in Stanford's own backyard. Protégés David Hewlett and William Packard soon set up shop in a garage nearby and, as they say, the rest is history. Their first sale, of audio oscillators (devices that generate signals of varying frequencies) for Walt Disney's 1940 movie *Fantasia*, provided the financial springboard for further inventions.

During World War II, the U.S. government became a major supporter of emerging technology, with California receiving almost $40 million in new plants and defense contracts. Terman campaigned for government sponsorship of university research, strengthening Stanford's reputation, providing industry support and planting the seed for postwar growth. He is also credited with an ingenious idea for the university's 8,000 acre campus — lease land to high-tech companies to benefit both parties. Stanford Industrial Park was born.

Varian was the first to sign a lease and moved into the industrial park in 1953. Eastman Kodak, General Electric, Admiral, Hewlett-Packard, Shockley Transistor and others followed. In 1956, Lockheed Aerospace moved in. The company initiated a space and air department with Stanford and in turn, Stanford provided scientific advice and training to Lockheed employees. Soon more research departments moved into the region, including those of IBM, NASA and Xerox. Fairchild Semiconductor invented the integrated circuit there in 1958, Intel the microprocessor in 1971 and Apple the personal computer in 1976, and the innovations just keep coming from companies like Sun Microsystems and Google. Silicon Valley inventors were awarded 8,809 patents in 2003. Stanford University researchers filed 350 new technology disclosures — the first step toward licensing new inventions — in 2004. Some 75 years after Terman made his mark, Silicon Valley reigns as one of the world's premier research and development locales.



SPACE RACE SENDS TECHNOLOGY INDUSTRY INTO ORBIT

What Neil Armstrong heralded as "One small step for man, one giant leap for mankind," was ultimately a colossal jump for the technology industry.

Starting with the Soviet Union's October 1957 launch of the atmospheric data-gathering satellite Sputnik and culminating in the United States putting a man on the moon in July 1969, the space race captivated people all over the world. Millions watched on television as Armstrong and Buzz Aldrin walked on the moon.

The space race also fueled tremendous technological advancement. The U.S. space program launched the analog computer industry, with companies like Digital, Wang, Prime and Xerox leading the way. It also provided a dynamic new market for distributors, including Avnet.

Avnet provided connectors, scopes, microwave switches and other zero-defect components to aerospace manufacturers like Hughes Aircraft, which built the Surveyor soft landing lunar spacecraft to photograph sites for a lunar landing; Grumman Aircraft Engineering, which built a lunar excursion module; Douglas Aircraft, which built the Saturn IB rocket; and RCA, which manufactured weather radar equipment.

Even after the space race officially ended, the technology industry stayed in orbit, with computers, calculators, miniaturized electronics and numerous other developments resulting from this period of growth and innovation. Avnet's defense/aerospace unit will remain dedicated to the industry as humankind's thirst for knowledge drives technological advancement forward.

Avnet's acquisition of Guild Musical Instruments in 1965 was one of many in the consumer products market. An Avnet/Guild vice president presents a Guild Starfire 12 to The Beatles' John Lennon and George Harrison.

"The list of Avnet, Inc. customers is a virtual 'Who's Who' of world trade. They cover every field of modern business, from Shaw castings for mammoth atomic submarines to a miniaturized six-pound artificial heart pump."

– Lester Avnet
July 1965

1960-1974

CHAPTER 3

Avnet Broadens Its Horizons

AVNET HERE, THERE, EVERYWHERE

What didn't Avnet do in the 1960s? From the time one awakened until the covers were tucked in for the night, the company's products were close at hand. The buzz of a Channel Master radio-alarm clock told you it was time to rise and shine. In the shower, you sang along to the Jan & Dean album spinning on your Garrard turntable. A smooth drive to the office was assured with car parts like IPM and Valley Forge spark plugs, starters and alternators under the hood. Managing inventory at work was a breeze thanks to data processing equipment powered by semiconductors distributed by Time Electronics. Once home, you'd smile proudly at your son's Freeman Products football trophy before giving your wife her birthday present, an Irice perfume decanter. Settling in for the evening, you adjusted your Channel Master television antenna to catch Tommy Smothers picking his Guild guitar — all compliments of Avnet manufacturing and/or distribution.

Diversify!

With the commercialization of the integrated circuit and invention of the microprocessor, electronics entered an exciting era of innovation, and so did Avnet. The company commenced the decade not only with an expanded portfolio of semiconductors and other components, but with the first of many unconventional acquisitions, audio equipment maestro British Industries Corp. (BIC).

Lester Avnet's influence was clearly evident in the purchase. BIC was not only a wise business decision — Avnet diversified into the consumer electronics market, balancing its already healthy industrial and military trade — but it satisfied the arts aficionado in him with its focus on the finest in home audio equipment, particularly Garrard turntables and Wharfedale speakers. It also gained Avnet entrée onto the New York Stock Exchange (the first technology distributor represented there), provided a strong source of capital for expansion and brought with it rights to the groundbreaking Shaw process for precision ceramic mold casting.

BIC was just the first in a string of acquisitions that would turn Avnet from a components distributor and manufacturer into a company with expertise in an array of goods, from microprocessors and die casting machines to guitars, perfume bottles, jumper cables and television antennas. The company described in 1960 as one of the leading national marketers of electronic products would find Electronic Marketing merely one of five groups by the mid-1970s.

LESTER AVNET

PRESIDENT 1955-1967; CHAIRMAN 1964-1969

Courted by presidents, senators, and business and civil rights leaders, Lester Avnet was a man of many facets: industrialist, management expert, advisor on corporate mergers, patron of the arts, enthusiastic supporter of the civil rights movement and, undeniably, the heart and soul of Avnet for many decades.

Through board memberships and in other capacities he helped guide the Albert Einstein College of Medicine, Hebrew Union College-Jewish Institute of Religion, Eleanor Roosevelt Memorial Foundation, Nassau County Council, Boy Scouts of America, United Nations Ball, Lincoln Center, Great Neck (New York) Symphony Orchestra and Metropolitan Opera.

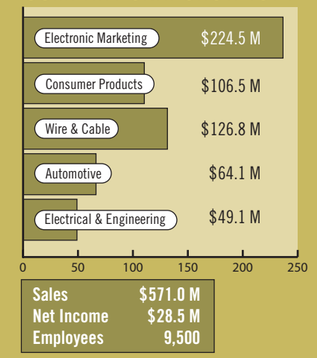
Avnet made another of its key acquisitions, that of West Coast electronic components distributor Hamilton Electro Sales, in 1962. It was a win-win deal. At that time, to become an authorized local distributor for a supplier one had to keep a full inventory of products in that city, a very expensive proposition. Hamilton brought Avnet franchises with a number of highly sought-after lines, including Fairchild Semiconductor, Motorola and Westinghouse semiconductors, and Avnet provided the influx of capital necessary to expand those lines into profitable new markets. In 1968, Avnet acquired Time Electronic Sales and Electro-Air. Led by future CEO Leon Machiz, their dominance on the East Coast complemented Hamilton's on the West. By the end of the decade, Avnet counted approximately 200 franchises with top electronic component suppliers, adding Raytheon, Bourns, TRW Automotive, KEMET, Intersil, Signetics, Veradyne and many others. From connector assembly to semiconductor marketing, from radios to rockets, Avnet was an integral part of this exciting period in the development of electronics and early computer products.

Avnet also acquired a number of companies in the automotive business. Fairmount Motor Products came aboard in 1963, followed by Valley Forge Products and Guarantee Generator and Armature. The Automotive, Processes & Equipment Division was established in 1966, focusing primarily on the $10 billion aftermarket for replacement parts, processes and equipment — everything from starters and ball bearings to dies, test equipment and even air freshener chemicals!

The division got a big boost when alternators replaced generators in new cars in the mid-1960s. In 1968, Carol Wire & Cable, headed by future Avnet board chairman Max Alperin, joined the roster. The strength of the Carol name in the electronic, automotive and mining industries appreciably increased the sales Avnet achieved from products produced in its own manufacturing facilities. A few more acquisitions were added to the mix and by 1974, the $64 million Automotive Group sold products for most domestic and many foreign automobiles, marine engines, trucks and other heavy-duty vehicles for the farming and mining industries, and was responsible for 11 percent of Avnet's income. Carol had become the cornerstone of the very profitable Wire & Cable Group.

Avnet entered the big leagues in 1968, joining the *Fortune* 500 at No. 467.

COMPANY SNAPSHOT: 1974



Sales	$571.0 M
Net Income	$28.5 M
Employees	9,500

TECH REVOLUTION

MOORE'S LAW

In the 35th anniversary edition of *Electronics Magazine* in 1965, Intel's Gordon Moore observed that the number of transistors per square inch of integrated circuit had doubled every year since it had been invented and predicted the trend would continue for the foreseeable future. The pace slowed in subsequent years, with data density doubling approximately every 18 months, and Moore's Law was revised. Moore and others expect the new number will hold true through at least the 2020s.

In 1966, the Anti-Defamation League of B'nai B'rith named him a "Man of Achievement."

Despite the many interests and talents that could have steered him away from the family business, the electronics industry was his destiny, and he poured his considerable enthusiasm into it. He was an expert on electrical connectors, extremely knowledgeable about foundry practice and metallurgy, and was known for bringing children to annual meetings to share his passion about business.

Lester's innate business sense, vision, energy and humanity shaped a company of humble beginnings into a quarter-billion dollar corporation. In 1961, with the blessing of several Wall Street analysts, Avnet was bestowed the title, "The Darling of the Big Board." By the time Lester retired in 1969 the company was known not only as a leader in electronic components, but as a connoisseur of consumer leisure market brands, a powerhouse in the automotive aftermarket and a model of elegant corporate giving.

Upon naming him its 1966 Man of Achievement, the Anti-Defamation League stated, "With Lester, thought led to action, theory to practice and thus to accomplishment. He was unafraid to pioneer, to innovate, to follow through. His dynamism and progressive leadership made Avnet a pacemaker in the electronic industry. His love for people and his dedication to liberty and progress made him give unstintingly of himself and his resources."

WHEN WE WERE YOUNG

Avnet has evolved hand-in-hand with the top technology companies. Many remain valued suppliers and customers today. Some of Avnet's earliest franchised lines:

1952 ITT Cannon
1957 General Electric
1957 Bendix
1959 Fairchild Semiconductor
1960 Motorola
1960 National Semiconductor
1962 Leach
1963 Dale
1963 Augat
1964 Pyle-National
1965 Bourns
1965 KEMET
1965 Mepco/Electra
1965 Winchester
1968 Signetics
1968 Siliconix
1968 TRW Automotive
1969 Intel
1970 AMD
1970 RCA

Source: Avnet 1985 Annual Report

The purchase of BIC whetted Avnet's appetite for leisure market specialists, and other acquisitions quickly followed. Freeman Products marketed components to lighting, giftware and trophy manufacturers. The Beatles became Avnet customers when the company bought Guild Musical Instruments. The "Irice" line of crystal bottles, mirrors and other toiletry items from Irving W. Rice graced many homes. One of the most profitable purchases was Channel Master, which turned Avnet into the world's largest manufacturer of outdoor television antennas and accessories and a market leader in television picture tubes. Channel Master also made its own line of transistor radios, tape recorders and other consumer electronic equipment, with an extensive distribution network spanning the globe. In 1974, Consumer Products Group sales surpassed $100 million.

Irice crystal decanters

The era was a heady one for all of Avnet's businesses. The company moved north of the border in 1963 as Avnet Electronics of Canada and changed its name from Avnet Electronics Corp. to Avnet, Inc. in 1964 to reflect the breadth of its interests. It entered the big leagues in 1968, joining the *Fortune* 500 at No. 467. A study by the publication ranked Avnet second among those on the list in earnings per share growth from 1957 to 1967.

Culver City, Calif., headquarters, Electronic Marketing Group, 1974

Although the pace of acquisition slowed, Avnet continued to invest in stocking, manufacturing and sales facility expansion. Earnings enjoyed a compound annual growth rate of 32 percent in 1974, the year the Electronic Marketing Group cut the ribbon on its expanded multi-use headquarters facility in Culver City, Calif. Revenue topped $500 million.

Company leaders Lester Avnet, Simon Sheib and Max Alperin had helped create what was, by the mid-1970s, a diversified holding company with a fluid matrix of divisions involved in distribution, marketing, licensing and manufacturing activities around the world, including facilities in Canada, Japan, Mexico and Taiwan. Big changes were on the way, however, as the country and company faced the steepest economic recession since the Depression.

(Editor's note: Avnet changed its top-level structural nomenclature from divisions to groups in 1971.)

SHAW PROCESS

Fed up with a ridiculously time-consuming method that allowed for only one cast per mold, archaeologist brothers Clifford and Noel Shaw set about to change the way casts were produced. After some experimentation, they hit upon a recipe involving heat-setting vinyl, cold vulcanized rubber developed for missile systems and a silicone rubber used by the electronics industry. They turned to ceramics as their mold material of choice for its permeability, stability and heat-resistant properties. Voila! The Shaw process: high quality, reproducible casts suitable for applications requiring close dimensional tolerance and a smooth surface finish.

Avnet obtained the rights to the Shaw process with the acquisition of British Industries Corp. in 1960. Avnet-Shaw was soon licensing use of the process and selling complementary chemicals, materials and equipment to a host of aviation companies, mining concerns, museums, metal foundries, toymakers, component manufacturers, nuclear energy plants and governments around the world. Westinghouse Electric became the first major U.S. corporation to sign an agreement enabling it to use Avnet-Shaw's rapid die process in all its domestic plants. It was soon licensing the process itself — with $1 million in royalties to Avnet — in 30 countries. Avnet's own divisions were using the Shaw process, too. In 1965, the company installed a steel foundry to produce special tooling and automotive components for its Valley Forge line. Boeing signed on to make use of the process for titanium airframe parts for its supersonic aircraft. Grumman Aircraft applied it to the manufacture of F-111 bombers. The emerging Japanese automobile industry used it to alter their cars' body styles every year.

Unfortunately, the cost and method of combining the mold ingredients soon proved too unwieldy for increased mechanization. Although Avnet no longer has any financial interest in it, the Shaw process is still used to make accurate molds with excellent surface finish and metallurgical integrity.

MAX ALPERIN

PRESIDENT 1969;
CHAIRMAN 1970-1974

Max Alperin joined Avnet with the acquisition of his company, Carol Wire & Cable, in 1968. He and his son, Melvin, continued to drive it forward as one of Avnet's largest and most profitable businesses. When Lester Avnet retired in 1969, Alperin provided much-needed company stability. He served as chairman of the board alongside CEO Simon Sheib until he retired in 1974. By then the Avnet Wire & Cable Group was responsible for more than one-fifth of the company's revenue.

Born in the Ukraine, Alperin settled in Providence, R.I., where he and his wife founded the Ruth and Max Alperin-Schechter Day School. He also established the Alperin Regional College of the Jordan Valley in Israel and was heavily involved in many Jewish organizations, including the Hebrew Immigrant Aid Society, United Israel Appeal and Temple Emanu-El.

1960-1974 YEAR-TO-YEAR

1960

1960 – Avnet operates four assembly plant/warehouse facilities and eight sales engineering offices/service centers in the U.S.

1960 – Avnet completes its first acquisition, hi-fi equipment importer British Industries Corp., and is concurrently listed on the New York Stock Exchange

1960 – Lester Avnet purchases his first drawing, the seed for the Museum of Modern Arts' collection

Pimlico, Walter Richard Sickert

1961

1961 – Wall Street analysts nickname Avnet "The Darling of the Big Board"; revenue nears $20 million with $0.70 earnings per share

1962

1962 – Avnet acquires Hamilton Electro Sales; eight years later, Hamilton/Avnet is born and is soon the nation's largest electronic components distributor

1963

1963 – Avnet acquires its first automotive products company, Fairmount Motor Products

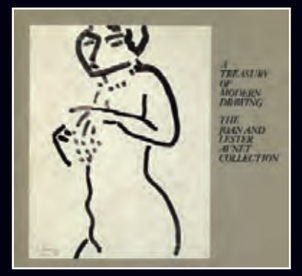
1964

1964 – Robert Avnet passes away; Lester Avnet is named president and chairman

1964 – Avnet Electronics Corp. is renamed Avnet, Inc. to reflect the company's diversification

1965

1965 – Digital Equipment Corp. introduces the PDP-8, the first commercially successful minicomputer



The Museum of Modern Art published a guide to the Avnet drawing collection in 1978.

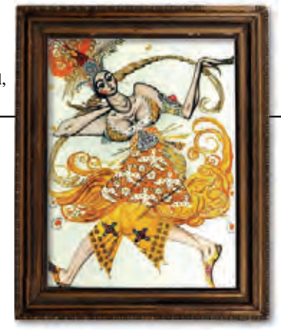
View from a Carriage Window, *Frantisek Kupka*

"Mr. Avnet was a man who could appreciate the sensitivity of a Goya, the lines of a Modigliani drawing, a Gorky abstraction, or a Hofmann brushstroke."

—The New York Times
January 4, 1970

The Joan and Lester Avnet Collection

Chagall. Mondrian. Modigliani. Kandinsky. Klee. The Joan and Lester Avnet Collection at New York City's Museum of Modern Art is a world-class compilation of drawings from some of the most important artists of the 19th and 20th centuries.



Piet Mondrian's **Church Facade** *(left) and* **The Firebird,** *by Léon Bakst.*

Although he made a name for himself in the business world, Lester was a Renaissance man at heart with a longstanding interest in the arts. As a boy, he would stand outside his father's store singing opera to entice customers in the door. As a young man, he was offered the opportunity to play violin with the Warner Brothers Symphony. As his family's company grew, he purchased drawings to foster the creation of a collection devoted specifically to the medium that captured his imagination.

Throughout the 1960s, Lester and his wife donated more than 40 drawings to the museum. His first purchase was by 19th-century British Impressionist Walter Richard Sickert, an artist known for his dark, heavy style and depiction of shadowy urban scenes. He eventually donated two of the artist's pieces, including *Pimlico*, done in charcoal and pen. Lester also admired designs for theatrical productions. Among his collection was *The Firebird* by Léon Bakst, which flamboyantly illustrates the lead female character in a 1910 Ballets Russes dance composed by Igor Stravinsky. The couple also amassed a number of studies for decors and costumes and collected sculpture and works in watercolor and pastel.

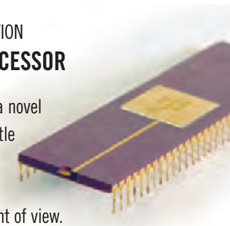
The Avnets donated 180 works to the museum overall, the largest gift of drawings it ever received. In addition to the artists already mentioned, the collection features Belgian symbolists Hoch and Delvaux; English painters Bell, Bomberg, Fry, Lewis and Grant; Paris limners Balthus, Derain, Dubuffet, Matisse and Rouault; Cubists Braque, Leger and Gris; and Americans Pollock, Rothko, Rivers and Johns. Many of the images relate to works in other media already in the museum's collection, which was frequently the reason Lester chose them. At one time, he displayed more than 200 works of art in his office, which he called his "salon des refuses" for the pieces Joan preferred not to hang at home. In 1971, just one year after his death, the museum opened its Department of Drawings devoted to works on paper.

"Often, when he was involved in resolving a business deal, Mr. Avnet would lift his eyes up to a drawing by Degas, or Manet, or Delacroix or Picasso that hung in his office, where many windows were paneled over to provide more hanging space, for a moment of clear thinking."
—The New York Times, January 4, 1970

For more information on The Joan and Lester Avnet Collection at the Museum of Modern Art, read A Treasury of Modern Drawing published by the museum in 1978.

TECH REVOLUTION

MICROPROCESSOR



As with many a novel creation, the title of "inventor" often depends upon one's point of view. Three designs (at least!) share the stage as the invention of the microprocessor, the technology industry's Holy Grail: Garrett AiResearch's Central Air Data Computer for the U.S. Navy's F-14 Tomcat; Texas Instruments' TMS 1000, which received the patent in 1973; and Intel's 4004 for the Busicom desktop calculator.

Perhaps the best-known story is that of Intel. After 10 years with Fairchild Semiconductor, Gordon Moore and Robert Noyce left to form Intel to focus on maximizing the amount of circuits on a piece of silicon. In 1971, Intel's Ted Hoff succeeded in creating a "computer on a chip" that could perform 60,000 interactions per second, marking a turning point in processing power. At just 1/8 inch, it matched the 30-ton ENIAC's total computational power. The first chip their company introduced, for Busicom, was the 4004, a four-bit microprocessor with the equivalent of 2,300 transistors.

1965

1965 – Avnet surpasses $50 million in sales with five divisions: Automotive, Electronics, Hi-Fidelity, Freeman Products, and Processes & Equipment

1967

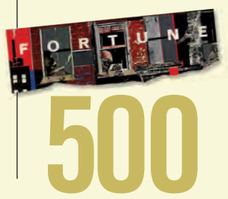
1967 – Avnet acquires TV antenna manufacturer Channel Master; it leads the Consumer Products Division for years and will remain an important part of the company until the sale of its satellite systems unit in 1997

1968

1968 – Avnet acquires Max Alperin's Carol Wire & Cable, which remains a leading company division until its sale in 1981

1968 – Avnet acquires Time Electronic Sales and Electro-Air, providing an East Coast complement to Hamilton Electro Sales

1968 – Avnet enters the *Fortune* 500 at No. 467



1968 – Avnet dips a toe in the computer industry with Diversified Numeric Applications, which designs and supplies computerized clinical laboratory systems

1969

1969 – Lester Avnet retires as chairman; Max Alperin is named president

1970

1970 – Simon Sheib becomes president and CEO; Max Alperin is named chairman

1973

1973 – Sheib lauds the wisdom of a diversified portfolio; Avnet's five groups span the electronic components, consumer products, wire and cable, automotive, and electrical and engineering markets

1974

1974 – Avnet surpasses $500 million in sales

Computer assembly in the Information Age

"Just as it was the first distributor to make a major commitment to connectors, solid state, integrated circuits, microprocessors, microcomputers, desktop computers and computer peripherals, Avnet is in position to pioneer new technology as it evolves."

—Tony Hamilton
August 21, 1981

1975-1989

CHAPTER 4

Technology Wins the Day

SIMON SHEIB
PRESIDENT & CEO
1970-1973;
PRESIDENT & CHAIRMAN
1974-1980

A graduate of Harvard Law School, Simon Sheib was practicing law and serving as outside counsel for British Industries Corp. when it was acquired by Avnet in 1960. He soon joined the company. Tasked with retaining the Shaw process for precision casting, he came up with an ingenious solution to license the "patented know-how" to preserve the revenue stream after the patent itself expired.

Named CEO in 1970, he envisioned the company as one firmly rooted in technology. He set about digesting the previous decade's acquisitions and perfecting the roster of companies under the Avnet umbrella. During Sheib's watch, and despite an economy marred by the deepest recession since the Depression, Avnet grew without significant acquisition from a small, highly leveraged company into one of formidable financial strength. Return on equity doubled, return on capital almost tripled, shareholder equity quadrupled and earnings increased six-fold. Sales were up almost $1 billion and long-term debt was slashed.

Sheib was not only a man with a vision, but one with a deep belief in human potential. He founded the Westchester Association for Retarded Children, contributed to the Albert Einstein College of Medicine, funded a scholarship for special education at Columbia University Teachers College and began the Sheib School for Exceptional Children in New York.

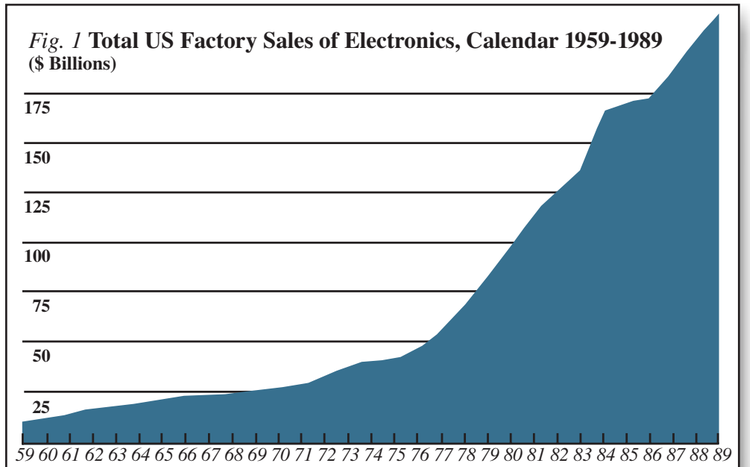
Back to Our Roots

Record sales. Record earnings. Every year. Since its incorporation in 1955 Avnet had the golden touch, conquering almost every market it chose to enter, from its traditional connector business to newer entries in the consumer, automotive, electronic component, and wire and cable markets.

It came as quite a shock, then, when the recession of the mid-1970s caused the first year-over-year revenue decline in the company's history. CEO Simon Sheib alluded to the possibility the year before, when the nation was caught in the crosshairs of a slowing economy and rampant inflation. But he also boldly stated that the company's diversified portfolio and operational efficiency would trump the economic slump. Although Avnet took a $30 million revenue hit in 1975, 12 months later it came roaring back with a 15 percent increase in sales and 35 percent jump in net income. The record-setter again hit its stride and continued to post gains despite the touchy economy. In its favor was the collection of businesses it had amassed during the years following its initial public offering. When falling copper prices hurt Carol Cable, a healthy market for industrial electric motors might boost Brownell Electro's fortunes. When Japanese competition walloped the market for BIC's turntables or Channel Master's tape recorders, microprocessor sales could drive Time Electronics' profit higher.

Of course, all those acquisitions had to be digested, and in the 1970s Avnet turned its attention to fine-tuning the company. In some cases, that meant selling what no longer fit. Channel Master television tube manufacturing and CBs were among the first casualties, joining 1963's Liberty Records (home to artists Julie London, Martin Denny and the Chipmunks) among the handful of early divestitures. In 1977, the Federal Trade Commission forced Avnet to sell the Automotive Group's largest division, International Products & Manufacturing. It made and marketed machinery, tools and parts for automotive and marine rebuilders and accounted for 6 percent of the company's revenue.

Fig. 1 **Total US Factory Sales of Electronics, Calendar 1959-1989**
($ Billions)



Source: EIA Electronic Market Data Book 1990
(Does not include Other Related Products/Services Category)

The majority of the time, however, Avnet's new strategy involved consolidating divisions, investing in sales, warehouse or stocking facililties, developing new products, reinforcing relationships, adding new franchises and expanding markets. Property and equipment expenditures totaled $75 million over the decade, giving the Wire & Cable Group more than 2 million square feet of manufacturing space; the Electronic Marketing Group 44 fully stocked facilities throughout the United States and Canada plus a distribution facility in Japan; and the Consumer Products Group expanded manufacturing facilities in Taiwan (Avnet International) and Mexico (Tenva) to combat competition from the Far East.

From a new product standpoint, when Garrard terminated its 37-year-old turntable distribution contract, BIC began manufacturing its own record players to great critical success. The Automotive and Wire & Cable groups continually introduced new products, including house-manufactured brands of spark plugs, hybrid circuits, battery chargers and extension cords, among many others. When it came to new markets, the Diversified Numeric Applications (DNA) division was one of Avnet's first forays into the computer business, designing, building and installing laboratory systems in hospitals and clinics.

The invention of the microprocessor and the relationship Avnet forged with its inventor, Intel, and semiconductor suppliers AMD, Fairchild Semiconductor, Motorola, National Semiconductor, RCA and Signetics contributed greatly to the company's vigor. Avnet was the first technology distributor to place an order with Intel in 1969. When Intel released the microprocessor it returned the favor, giving Avnet access to related software development and demonstration tools to sell to engineers for their microcomputers — a very profitable venture. In 1970, the Electronic Marketing and Wire & Cable groups combined accounted for just 32 percent of Avnet's earnings, with consumer and automotive products well ahead. By 1975, Avnet operated 33 microprocessor demonstration centers and was describing its Electronic Marketing Group (Hamilton/Avnet Electronics, Hamilton Electro Sales, Avnet Electronics, Time Electronics and Electro Air) as the leading distributor in the nation. Semiconductor sales were almost triple that of connectors. By the end of the 1970s, 75 percent of Avnet's earnings came from the Electronic Marketing and Wire & Cable groups, a complete reversal of roles. Company sales exceeded $1 billion.

Prognosticating on the coming decades, *Electronics Marketing* magazine stated that the availability of inexpensive computer power coupled with extensive communication networks would weave electronics inextricably into the fabric of society. Convinced Avnet's future would be in the field from whence it arose — technology distribution — Tony Hamilton, named CEO in 1980, kicked the divestiture process into high gear,

Avnet's first value-added operations centered on connector testing and assembly, which continue to be an important part of the company's business.

Micro Instrumentation Telemetry Systems' MITS Altair 8800 was the first commercial personal computer.

Avnet was the exclusive distributor of Hazeltine terminals.

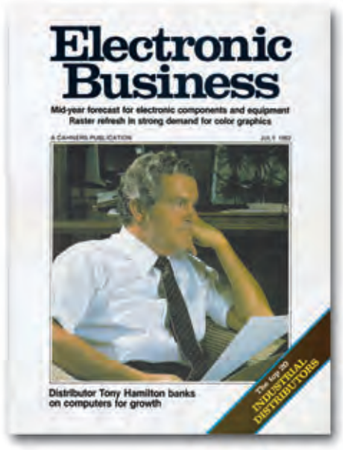
Introduced in 1981 and running on an Intel CPU and the early version of Microsoft's MS-DOS operating system, the IBM 5150 was Big Blue's first successful entry into the personal computer market.

pruning sluggish divisions and product lines and replacing them with technology-related acquisitions and products with high growth potential. The Electronic Marketing Group was already the leading U.S. distributor for semiconductors, connectors, computer products and passive components, and in many cases it was the single largest customer of each of its suppliers. Serving primarily manufacturers in the data processing, aircraft and military fields, it also accounted for more than half of Avnet's revenue and two-thirds of its net income. Its budding computer products business, which held franchises with leading manufacturers of video display terminals, floppy disc drives, software, printers, microcomputer modules and development systems, was enjoying triple-digit growth.

At the same time, the Automotive, Wire & Cable and Consumer Products groups continued to be buffeted by high gas prices, fluctuating copper prices, competition from the Far East and a lingering recession crimping consumer spending. The company's first divestiture in the 1980s was the sale of the Automotive Group's General Carbon division, which made carbon motor brushes. The Carol Wire & Cable businesses soon followed. Much of the audio business was abandoned and its inventory sold.

The Consumer Products Group became the Video Communications Group to reflect Channel Master's growing influence in microwave communications and satellite and cable television reception. Chroma Tubes, clutch plate manufacturer American Precision and stringed instrument distributor Meisel were sold in 1984 and were joined by many others as the decade progressed. By 1986, Avnet was out of the musical instruments and machinery businesses altogether.

At the end of the 1980s, the company's non-core business was streamlined into just two groups. The Video Communications Group revolved around Channel Master and Avnet International, which manufactured audio and video products in Taiwan and, to a lesser extent, Malaysia, for Channel



Master and other private label customers in Japan, Taiwan, Korea, Europe and the United States. The Electrical & Industrial Group was a hodgepodge of divisions led by Brownell, which focused chiefly on electric motors. It also included Mechanics Choice, a supplier of industrial maintenance and factory supplies; Freeman Products, primarily a purveyor of trophy components; Lincoln Controls, which distributed hydraulic and pneumatic components; and I.W. Rice, the bath accessories distributor.

While it was divesting and reorganizing, the company was also investing judiciously in acquisitions within the electronic and computer marketing spheres. Midwest computer terminal distributor Loonam Computer Products was the first in 1982; it allowed Avnet to penetrate the commercial end-user market. The purchase of Sertech gave Avnet the ability to distribute bare semiconductor customized chips, make and sell hybrid microelectronic circuits and enter the European market. The company even invested in a joint venture called Computer SuperStores to sell to consumers, though Avnet soon sold its interest.

The Electronic Marketing Group's evolution closely paralleled that of the microprocessor. In its first 4004 generation, that magical invention gave rise to the portable electronic calculator, digital watch and microwave. The 8-bit microprocessor ushered in video games and personal computers (PCs). In the early 1980s, the introduction of the 16-bit microprocessor allowed for more powerful PCs, minicomputers and mainframes, and Avnet stood ready with newly minted distribution agreements for IBM printers and terminals, Digital Equipment Corp.'s personal computers, and Altos' and North Star's small business computers. Avnet also took on a range of software lines to complement the computers and peripherals it distributed. Component line additions included Emulex mass storage devices, RCA and LSI Logic semi-custom gate arrays, Micron's high density dynamic RAMs and a host of others.

By 1984, the Electronic Marketing Group, with hundreds of top-name suppliers, was responsible for more than 75 percent of Avnet's revenue. It took a major hit the following year, however, during what Hamilton called "the semiconductor bloodbath of 1984/85." Excess inventory across the industry pushed delivery of semiconductors from a lead time of nine months to overnight from stock, and average selling prices (and profit margins) dropped like a rock. Avnet's revenue fell for only the second time in company history, from $1.6 billion in 1984 to $1.4 billion in 1986, with earnings declining even more dramatically.

Small business computers such as the Altos are among Avnet's earliest computer product distribution franchises.

By 1984, the Electronic Marketing Group, with hundreds of top-name suppliers, was responsible for more than 75 percent of Avnet's revenue.

With every cloud there is a silver lining, however, and this event would stimulate a new way of doing business — centralized and automated — that would transform Avnet and the entire technology distribution industry. As the excess inventory was burned off the market slowly recovered, and for the rest of the decade Avnet's revenue climbed steadily. By 1990, the 32-bit microprocessor had taken off — its sales increased tenfold, to $200 million, in just five years — and networking, with all its attendant components, peripherals and services, was in play. So was Avnet.

TECH REVOLUTION

THE COMPUTER GENERATION

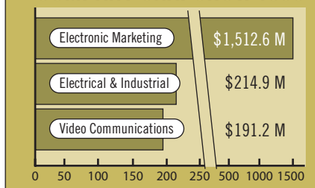
1943 to 1959 – 1st generation
Based on wires and valve circuits and characterized by the use of punch cards and vacuum tubes, with programming done in machine code

1959 to 1964 – 2nd generation
Based on transistors and printed circuits and able to handle languages such as FORTRAN and COBOL for science and business

1964 to 1972 – 3rd generation
Based on the first integrated circuits, allowing for much smaller computers than previous generations

1972 to present – 4th generation
Based on microprocessors, modern circuits may contain millions of components, some so small as to be measured in atoms

COMPANY SNAPSHOT: 1989



Sales	$1.9 B
Net Income	$54.0 M
Employees	8,500

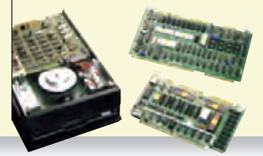
1975-1989 YEAR-TO-YEAR

1975 – Economic recession and inflation precipitate the first year-over-year revenue decline in Avnet's history

1976 – The industry recovers; the top 25 technology distributors account for $1 billion in sales

1976 – Avnet begins culling businesses; the Channel Master CB business is sold

1978 – An internal organization is established to handle a growing microcomputer system segments business



1979 – Avnet surpasses $1 billion in sales

$1B

1979 – Hamilton/Avnet opens the U.S. distribution industry's first Asia stocking location in Tokyo

1980 – Simon Sheib passes away; Tony Hamilton is named chairman and CEO

1980 – Avnet sells carbon motor brush maker General Carbon as the company begins to refocus on electronic components and expand into computer products

1980 – Electronic Marketing Group sales account for more than 50% of Avnet's revenue

Avnet Megawarehouses Revolutionize Industry

Avnet prides itself on getting the right product to the right place at the right time. In the 1950s, thanks to its habit of opening stocking and assembly facilities near major military, aerospace and aircraft hubs, the company could deliver many connector orders within 24 hours, a feat most others could not match.

Semiconductor programming and inventory management solutions are just two of the many services Avnet offers.

Soon, suppliers began requiring that their full inventory be in stock near every city served. By the 1980s, the Electronic Marketing Group had more than 100 such facilities scattered around the United States to serve the connector, semiconductor, passive and computer markets. The system worked well — Avnet was the number one distributor in all those categories — but a nasty semiconductor glut in the mid-1980s pointed out its fatal flaw, a potent combination of high overhead and inventory oversupply.

Avnet's solution: Centralize and automate. It was a radical idea, but the advent of powerful, network-capable computers and reliable overnight air delivery service made it possible. In 1984, the company began building its first megawarehouse in Peabody, Mass. The nation's largest, it boasted three automated warehouses with real-time transaction processing computers running homegrown logistics software. It provided the widest range of value-added services in the industry, including semiconductor customization services like bare chip processing, hybrid circuit fabrication, testing, packaging and kitting. A design and prototype area for multilayer printed circuit boards and a sales center complete with public relations, direct mail and catalog operations rounded out the package.

As Avnet moved its East Coast operations into the Massachusetts complex, it set to work on a similar facility in Chandler, Ariz., to cover the West Coast. The wizard behind the curtain at the Arizona megawarehouse, occupied in 1987, was a proprietary online transaction processing computer system aptly named "Genesis." Its network of 2,800 remote terminals linked the Hamilton/Avnet division's North American facilities coast to coast. The megawarehouses were supported by smaller facilities in Dallas, Chicago, Atlanta and other cities, as well as numerous in-plant stores at customers' locations. In 1992, the company's domestic warehouses received the International Organization for Standardization's quality designation, ISO 9002.

The results were spectacular. Faster quotes and order processing. Improved material handling and inventory management. More economical value-added services. Better analysis through timely reports. The ability to handle just-in-time delivery and automatic replenishment systems. A $0.02 per dollar cost reduction in sales its first year in operation. This completely new system was nothing short of revolutionary, and the technology distribution industry was forever changed.

(Clockwise from top) Order fulfillment, inventory management, connector assembly, transaction processing and logistics reach new levels of sophistication in Avnet's megawarehouses.

Computer Products Prove Their Mettle

When Avnet decided to get into the computer business in the 1970s, little did its leadership team know what an important part of the company it would become.

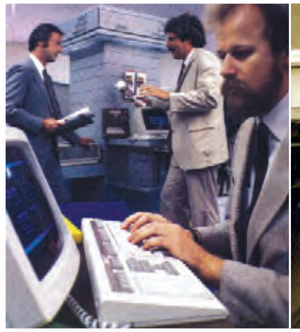
Avnet tried to make a go of its Diversified Numeric Applications division, which designed and supplied computerized clinical laboratory equipment, for most of the decade, but abandoned it as unprofitable in 1978. Dreams of success still simmered, however, and the company seized an opportunity to sell development systems for programming microprocessors. In 1978, an internal operation was established to handle microcomputer system segments, including exclusive U.S. distribution deals for Hazeltine terminals, Shugart floppy drives, Centronics printers and Ryan-McFarland software. Avnet soon became the first distributor of Digital Equipment Corp.'s microcomputers.

Computer product sales were so successful over the next decade that in 1988, when revenue exceeded $385 million, the company separated the business from its Hamilton/Avnet division and formed the Hamilton/Avnet Computer division. Roy Vallee, who would become CEO in the late 1990s, was named division president in 1989 and the following year led the merger of Hamilton/Avnet Computer (which marketed primarily to manufacturers) and Avnet Computer Technologies (which focused on end users) into a single division, Avnet Computer.

Although it provided nearly a third of the company's revenue, Avnet Computer was regarded as somewhat of a second class citizen because of its lower gross profit and added product complexity — systems vs. components. Though relegated to doing business from an old warehouse, it forged ahead. Digital Equipment Corp. forbade Avnet from pursuing Hewlett-Packard (HP) as a supplier for many years due to intense competition in the personal computer arena, but the 1993 acquisition of Hall-Mark Electronics finally brought the HP computer products franchise on board. Subsequently, the Avnet Computer Group became the umbrella operation housing related businesses. It was renamed the Avnet Computer Marketing Group the following year.

The group hit $1 billion in sales in 1997 and established a headquarters of its own in Arizona in 2000. The acquisition of Savoir Technology in 2000 made Avnet the world's largest distributor of IBM mid-range computer products.

Now called Avnet Technology Solutions, it has evolved into a purveyor of services and solutions for resellers, manufacturers, integrators and end users. Strong leadership, consistency, focus and a successful business model have built what started as a side business into one of the best computer businesses in the distribution industry.



"Like a winning sports franchise, Avnet Technology Solutions has momentum — it expects to win, which leads it to more wins, followed by even higher expectations. Having gone from zero to $5 billion in 27 years, Avnet's computer products business is on an upward spiral that makes me wonder just how big it will be another 30 years from now."
— Roy Vallee, Chairman & CEO, Avnet, Inc.

TONY HAMILTON
CEO 1980-1988

A charismatic businessman, Tony Hamilton turned his homegrown company, Hamilton Electro Sales, from a one-man operation in his garage into the largest technology distributor in the United States, the Hamilton/Avnet division of Avnet. His contemporaries credited much of his success to an unmatched ability to inspire people and nurture relationships.

Named CEO in 1980, Hamilton turned his infectious style loose on the rest of the company. He was a strong believer in motivation by incentive and created legendary programs to reward the company's most talented people. Managers' meetings in Spain and Hawaii. Trips for top salespeople. Super Bowl weekend parties with the biggest names in sports. Lavish Christmas parties. Extravagant gifts. Month-end festivities included poker, backgammon and Hamilton's own card game, Crazy Otto. He even dreamed up an Avnet fight song, and there are still quite a few people at Avnet who can belt it out on request! Suppliers benefited, too, with black tie affairs and exotic excursions, a favor they returned by sponsoring weekly technical training sessions.

When it came to the business of business, Hamilton was a stickler for accountability. He initiated Monday conference calls to vet the prior week's performance and insisted those results be shared with the appropriate teams. He empowered employees to make decisions and surprised salespeople with "trunk checks" to ensure they carried suppliers' collateral in their vehicles. It was a winning combination. When the technology distribution industry increased fourfold in the 1970s, Hamilton/Avnet increased eightfold; it would dominate the components, and later the computer products, distribution industries for decades to come.

Three of his five children, Tony, Jr., Rick and Debbie, followed their father into the family business. Hamilton received the National Electronic Distributors Association's Lifetime Achievement Award in 1987, one of only five recipients in the organization's 70-plus-year history. The Anthony R. Hamilton Educational Technology Center at Culver City (Calif.) High School was established the same year in honor of his 30th anniversary in the electronics industry. He was also a member of the Radio Pioneers of Southern California and the Pepperdine University Associates, and a supporter of the Boy Scouts of America, Childhelp USA and the Muscular Dystrophy Association.

The Hamilton name was retired from the company in 1998, but his legacy lives on.

"Tony Hamilton brought to the distribution side a degree of customer understanding and a vision for the role of a distributor." — Charlie Clough, Former Chairman and CEO, Wyle Electronics in *Electronic Buyers' News*, August 28, 1996

1981

1981 – The Consumer Products Group is restructured as the Video Communications Group around Channel Master's foray into cable and satellite TV accessories

1981 – The Electronic Marketing Group touts a decentralized inventory strategy for speedy delivery, boasting 53 stocking locations in the U.S., Canada and Japan

1982

1982 – Avnet signs a deal to distribute Digital Equipment Corp.'s personal computers

1984

1984 – Semiconductor oversupply causes a spectacular downturn in the components industry; Leon Machiz, president, advocates centralized inventory and facilities

1985

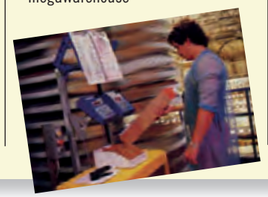
1985 – Avnet opens its Peabody, Mass., regional megawarehouse, the largest electronic component distribution facility in the nation

1986

1986 – The last of Avnet's musical instruments and machinery businesses are divested

1987

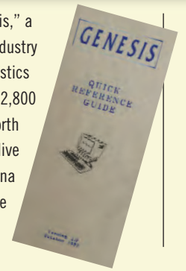
1987 – Avnet begins moving its West Coast component operations into its new Chandler, Ariz., megawarehouse



1988

1988 – Hamilton/Avnet Computer is broken away from the electronic components-focused Hamilton/Avnet Electronics with future CEO Roy Vallee as its president

1988 – "Genesis," a state-of-the-industry proprietary logistics system linking 2,800 terminals in North America, goes live in Avnet's Arizona megawarehouse



1989

1989 – Avnet's operating groups are down to three: Electronic Components, Video Communications, Electrical & Industrial

The History of Computers

1642-1940

1642 – Pascal invents the first mechanical calculator, the Pascaline, which can add and subtract eight-digit numbers

1801 – Jacuard creates an automatic loom controlled by punch cards

1820 – Tomas develops the first commercially successful calculator, the Arithmometer, which can add, subtract, multiply and divide

1832-1847 – Charles Babbage develops the steam-driven Difference Engine and the Analytical Engine, the first calculating machine to use punch card programs

1890 – Herman Hollerith wins a competition by the U.S. Census Dept. to come up with a better method for compiling results; his Tabulating Machine reduces the count from seven years (1880) to six weeks

1936 – Alan Turing writes *On Computable Numbers* describing a hypothetical general purpose digital computer that performs logical operations and can read, write and erase symbols

1937 – Stibitz builds a digital machine at Bell Labs based on relays and flashlight bulbs

1938 – Zuse and Schreyer complete a prototype mechanical binary programmable calculator, the first using the binary system and based on Boolean algebra

1939 – Atansoff and Berry build the first digital machine to calculate using vacuum tubes as switches instead of relays

1940 – Stibitz creates the Complex Numbers Calculator at Bell Labs using relays and switches for logic and demonstrates remote computing to teleprinters over phone lines

1940-1950

1940- 1943 – Turing helps develop the Bombe, a decoder for German "Enigma" encryptions, and the programmable digital computer Colossus to break German telegraph ciphers; its 2,400 vacuum tubes for logic help it translate 5,000 characters per second

1939-1944 – The Harvard Mark I, the first large-scale automatic digital computer, is built by IBM and Aiken to create ballistics tables for the U.S. Navy; it is 51 feet long and uses 750,000 parts

1945 – Bell Labs physicists Shockley, Brattain and Bardeen develop the first point-contact transistor

1945 – Most computers are built with vacuum tubes instead of relays by this time

1945 – Von Neumann writes the *First Draft* outlining the elements of a stored-program computer

1946 – Mauchly and Eckert build ENIAC, the first general-purpose electronic computer, to calculate ballistic trajectories and test theories behind the hydrogen bomb; it has to be physically programmed with switches and dials but can do 100,000 calculations per second

1948 – Baby, the first computer to store both its programs and data in RAM, is built at Manchester University

1949 – The EDVAC computer uses magnetic tape to store programs, making reprogramming by rewiring obsolete

1950 – Nakamats invents the floppy disk

1950-1971

1950 – Shockley invents the bipolar junction transistor, which is better and cheaper than the point-contact transistor; just as vacuum tubes replaced relays, the transistor starts to replace vacuum tubes

1951 – The Eckert-Mauchly Computer Division of Remington Rand builds UNIVAC I, the first commercially successful large-scale electronic computer

1957 – IBM markets the first dot matrix printer

1958 – The invention of the integrated circuit (IC) by Jack Kilby of TI accelerates the transistor revolution; ICs incorporate transistors, diodes, coils and wires on one chip

1964 – The IBM 360 Series uses solid logic, miniature transistors combined with hybrid circuits, that can multiply two 10-digit numbers 400,000 times per second

1965 – Moore's Law predicts the number of transistors that can fit on a chip will double every year

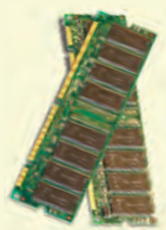
1965 – Digital Equipment Corp.'s DEC PDP-8 is the first commercially successful minicomputer

1965 – Englebart conceives of the mouse

1965 – The first supercomputer is developed, the Control Data CD6600

1969 – The U.S. Department of Defense establishes ARPANET (Advanced Research Projects Agency Network), the basis for the Internet, to research networking; e-mail is created to use with it two years later

1970-1971 – At least three designs share the stage as the invention of the microprocessor; Texas Instruments' TMS 1000 receives the patent in 1973



1972-1983

1972 – Hewlett-Packard releases the first handheld scientific calculator

1972 – Bushnell releases Pong, setting the stage for 1978's Space Invaders, which will launch the gaming age

1973 – Ethernet makes it easy to share data via computers and peripherals connected in a local area network (LAN)

1973 – The first cellular telephone call is made; the first commercial cell phone won't come on the market until 1979

1974 – Micro Instrumentation Telemetry Systems' MITS Altair 8800 is the first commercial PC (personal computer)

1976 – Apple releases the Wozniak/Jobs-designed Apple 1 and is followed in short order by competitors from Commodore, Tandy/Radio Shack, Sinclair and others

1976 – IBM introduces the laser printer

1978 – Rockwell launches the first GPS (global positioning system) satellite

1979 – The VisiCalc spreadsheet is the first commercially available software program; it is widely hailed as the killer app that turns computing from a hobbyist's game into a business tool

1981 – The Osborne 1 is the first portable computer; it is also the first to bundle software with hardware

1982 – Computers enter pop culture with *Time* magazine's Machine of the Year and Disney's *Tron*

1983 – The CD (compact disc) reaches the market and an audio revolution ensues; the CD-ROM will be released two years later allowing the storage of digital sound as well as computer data

1983-1995

1983 – Apple Lisa, the first commercially available computer to use a GUI (graphical user interface) and mouse, is introduced

1985 – Microsoft, founded 10 years prior with the Gates/Allen creation of BASIC for the Altair 8800, launches Windows

1986 – IBM and MIPS introduce the first RISC-based (reduced instruction set computers) workstations

1989 – Berners-Lee, a researcher at the CERNS physics lab, develops HTML as a research tool, enabling the launch of the World Wide Web two years later

1990 – Gopher is developed at the University of Minnesota; the program is a menu-driven search-and-retrieval tool that helps Internet users locate information online

1991 – The first known computer virus, *Monkey*, is discovered

1991 – Torvald releases the Linux kernel to the Internet, accelerating acceptance of open-source operating systems

1992 – The MIME (multipurpose Internet mail extensions) standard allows non-text files (compressed, sound, graphic, document, video, etc.) to be attached via e-mail

1992 – Drexler publishes his MIT thesis, *Nanosystems: Molecular Machinery, Manufacturing and Computation*

1995 – Gosling and Sun Microsystems introduce Java, improving memory management, speeding up software projects and making them portable across hardware types

1995-2004

1995 – The USB (universal serial bus) standard is created for attaching peripherals to computers

1996 – The Palm Pilot is introduced, the first commercially successful PDA (personal digital assistant)

1996 – WebTV is introduced, allowing users to browse the Web from their televisions

1996 – The first DVD players and discs are available in Japan

1997 – IBM's Deep Blue computer defeats world champion chess player Garry Kasparov; it is capable of evaluating 100,000,000 positions per second

1998 – The Digital Millennium Copyright Act is passed, an addition to U.S. copyright law prohibiting the circumvention of copy protection regardless of delivery method

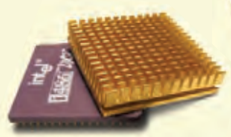
1998 – Saehan's MPMan is the first commercial MP3 player

1999 – IEEE introduces 802.11b for wireless Ethernet networks, precipitating an explosion in consumer and home wi-fi use

2000 – Despite manic hype, a programming glitch thought to cause computers to crash worldwide doesn't materialize — the Y2K bug doesn't bite

2002 – Consulting firm Gartner estimates 1 billion PCs have been shipped worldwide since the mid-1970s

2004 – More than 200 universities and networking and technology companies form the Internet2 consortium to improve protocols



By the turn of the millennium, Avnet's services were in demand around the world.

"The primary consideration for our expansion has been to find companies that share our dedication to providing the highest levels of service to our customers. We will take this policy throughout Europe and to every corner of the globe."

—Leon Machiz
June 1992

1990-2000

CHAPTER 5

The World is Your Market

Information technology is to a services provider what research and development are to a manufacturer — the springboard to innovation and a competitive differentiator. At Avnet, our state-of-the-art IT infrastructure allows us to provide the best customer service and operational efficiency in the industry.

Technology Drives Globalization

"A watershed year." Rarely had a more apt phrase been chosen to open an annual report than that of 1990, when Avnet completed an ambitious centralization and automation plan and set the stage for a spate of acquisitions that would redefine the global technology distribution industry.

Chairman and CEO Leon Machiz set the wheels in motion in the mid-1980s when, as president, he championed a complete infrastructure overhaul for the company's largest business. In just five years, the Electronic Marketing Group metamorphosed from a constellation of full-service stocking/sales/support facilities into an efficient collection of technologically advanced regional megawarehouses and field support hubs interlaced with a network of local sales branches. The Electrical & Industrial Group would soon follow suit, creating a system of centralized and regional warehouses for its largest division, electrical motor distributor Brownell.

Brazil

China

Israel

Always a leading technology distributor, Avnet had come into its own as a company that used the latest technology to ensure it held onto its place at the top. The logistics systems installed at the electronic components megawarehouses formed the lynchpin of a portfolio that would include direct order entry, electronic data interface, point-of-use replenishment systems and inventory analysis. An insistence on the most sophisticated technology also helped Avnet offset the costs associated with suppliers' demands for increased technical customer service (field applications engineers, technical salespeople, specialized product managers) and customers' requests for value-added services.

The company remained a diversified one, although to much less a degree than it had been. In 1990, the Electronic Marketing Group accounted for 80 percent of Avnet's revenue, while the Electrical & Industrial Group provided 12 percent. Just 8 percent came from the Video Communications Group, composed primarily of the Channel Master line of TV rooftop and satellite reception devices. Avnet began getting rid of its Electrical & Industrial Group divisions with the sale of I.W. Rice in 1993, followed in short order by Freeman Products, Brownell and Mechanics Choice. It shed its Channel Master Malaysian manufacturing facility and Canadian operations in 1993 before getting out of the business altogether in 1997. Avnet had come full circle and was once again 100 percent focused on technology products. This was the company Roy Vallee would inherit as chairman and CEO upon Machiz' retirement in 1998. As vice chairman, president and chief operating officer during much of Machiz' tenure, Vallee was instrumental in helping his mentor realize his vision of creating a focused, global technology leader.

While phasing out all non-component and -computer products businesses, Avnet whetted its appetite for acquisitions with the purchase of the Access Group, a U.K. semiconductor distributor, in 1991. It established a European beachhead for Avnet and was joined in quick succession by the purchase of two other semiconductor specialists, France's FHTec Composants and Scandinavia's Nortec, thus securing a place in three of Europe's five largest markets. The company also launched its first European start-up, Avnet Time, in the U.K. to distribute connectors and passive components. Although there were more than 1,000 technology distributors in Europe at the time, most were wholesalers offering little in the way of value-added services — a distinct opportunity for Avnet.

Avnet Design Services engineers help customers meet aggressive time-to-market requirements.

In fact, Avnet would average almost four acquisitions per year — one every quarter! — through 2001. Although the company had long had an international presence, primarily with its manufacturing facilities, imported products and Shaw process licenses, this was a new strategy aimed at consolidating the distribution industry and supporting suppliers and customers as they sought cheaper manufacturing and new markets for their products.

In Europe, Avnet went on to acquire companies in Italy, Ireland, Germany and the Netherlands, along with a number of pan-European distributors. The crown jewel was the 2000 acquisition of RKE Systems and Europe's leading semiconductor distributor, the EBV Group (EBV Elektronik and WBC). Part of Germany's VEBA Electronics Distribution Group of companies, the deal was unprecedented in that Avnet and its number one rival, Arrow Electronics, cooperated on the purchase — Arrow took a North American subsidiary — to further consolidate the industry. The acquisition added significant

1990-2000 YEAR-TO-YEAR

1990

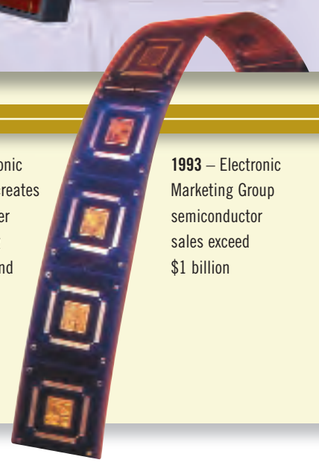
1990 – Hamilton/Avnet Computer and Avnet Computer Technologies join to become Avnet Computer

1991

1991 – Avnet begins its modern era of globalization with the acquisition of the Access Group, a U.K. semiconductor distributor

1993

1993 – The Electronic Marketing Group creates the Avnet Computer Group, comprising Avnet Computer and newly acquired Hall-Mark Computer Products



1993 – Electronic Marketing Group semiconductor sales exceed $1 billion

1994

1994 – The Allied Electronics (formerly a Hall-Mark Electronics subsidiary) components catalog is published on CD-ROM, an industry first

1994 – Avnet's European distribution operations surpass $500 million in sales

1995

1995 – Avnet enters the Asia technology distribution market with the acquisition of Hong Kong's WKK Semiconductors

WKK Taiwan

1995 – Sales from value-added services top $1 billion

1995 – www.avnet.com goes live

TECH REVOLUTION

THE INTERNET

The Internet has forever changed business. What started in 1969 at the U.S. Department of Defense's Advanced Research Projects Agency as a military server network has transformed how companies worldwide execute core business processes, how consumers purchase goods and services, and how value is created and distributed within industries.

The invention of the World Wide Web in the late 1980s allowed people to easily organize and access data on linked Internet servers. Web browsers followed, driving traffic to an astounding 341,634 percent growth rate in 1993. Commercial providers soon began selling Internet connections to individuals. Today, surfers can access information from more than 285 million computer hosts.

Avnet.com went live in late 1995, providing information, part searches and order status. By 1997, the company was selling products through Avnet Direct, a fully functional e-commerce site. Avnet, IBM, Microsoft and other technology giants formed RosettaNet in 1998, a nonprofit organization implementing Internet standards for supply chain transactions. By investing in ChinaECNet in 2000, Avnet became an exclusive provider of products, logistics and technical services to electronics manufacturers in the world's fastest growing market. In 2004, Avnet partnered with Software Information Systems to help small-to-medium businesses benefit from Web technologies they were previously unable to afford.

In 2000, *Forbes* magazine called www.avnet.com the "Best of the Best" Web site in the distribution industry. A 2002 study of 500 corporate sites by Best Practices in Corporate Communications ranked it No. 4.

revenue to Avnet's coffers and gave it critical mass in semiconductor, computer products and services distribution on the continent. In less than 10 years, Avnet had gone from essentially zero to $2 billion in sales in the region, with a pan-European information technology system and centralized distribution centers in Belgium and Germany.

The $5 billion Asia market for distribution was already growing faster than any other major market in the world. Avnet's modern foray into the region commenced with the 1995 purchases of WKK Semiconductors of Hong Kong; Australia/New Zealand's VSI Electronics, a components distributor; and Taiwan's Mercuries & Associates, which specialized in semiconductor distribution. As proof of the region's simmering potential, WKK's and Mercuries' sales had increased 60 percent and 21 percent over the prior year, respectively, despite sharp declines in commodity prices. Companies in Singapore, Korea and China followed, as did India's number one distributor, MAX Electronics, a value-added/technical distributor for AMD, Hyundai and Motorola products. By the end of the decade, Avnet was distributing semiconductors, radio frequency/microwave devices, fiber optic and other specialty components in 12 countries in Asia. Singapore, the region's headquarters, boasted a new distribution center. The China Gateway Warehouse in Hong Kong was up and running, as were eight other strategic warehouses. Design centers in India, New Zealand, Singapore and Hong Kong showcased the latest technology. Avnet's supply chain services were making inroads. Although regional revenue accounted for only 6 percent of the Electronics Marketing Group's sales in 2000, the opportunity was enormous.

Avnet left no stone unturned in the Americas, either. Machiz called the 1993 acquisition of Hall-Mark Electronics, the U.S.' third-largest broadline distributor, "a quantum leap forward for Avnet," adding $744 million in sales and 25,000 customers. In one stroke, Avnet substantially increased its market share while improving coverage of important growth markets in the United States and Mexico. And, Avnet became the only U.S. distributor to carry all five top American semiconductor lines: AMD, Intel, Motorola, National Semiconductor and Texas Instruments. Hall-Mark's Allied Electronics greatly expanded Avnet's presence in the rapidly growing electronic and maintenance and repair catalog market as well. Although customers already used catalogs to purchase items from Avnet Industrial, Brownell Electro and other divisions, Allied offered 24-hour telephone support and product lines from some 300 manufacturers. (Avnet sold its catalog businesses in the late 1990s; Allied remains a leading catalog components distributor.) Americas acquisitions also included Penstock, North America's number one distributor of RF products; semiconductor distributor Marshall Industries; and Kent Electronics, with $1 billion in sales of enterprise solutions and interconnect, passive and electromechanical products. Distributors in Brazil, Israel and South Africa were also part of the global package.

Technology has been the driving force behind globalization, and Avnet applied its centralize-and-automate philosophy to these newest members as well. The company launched its Web site in 1995, adding features and partnering with complementary

More than 700 people from around the world gathered in Phoenix for Avnet's Global Managers Meeting in 2000.

Avnet Global Information Solutions' mission control is the epicenter of the company's information technology infrastructure.

dot.com businesses as the decade progressed. In 1996, Avnet went live with its multilingual, multicurrency enterprise resource planning system connecting Germany, the U.K. and Italy, an important step in unifying the disparate warehousing, order fulfillment and asset management systems of Avnet's European acquisitions. Although transitioning all the European and Asian locations to one platform would prove challenging, by 1999 most were integrated. In the Americas, the legacy Genesis green screen system continued to be used with a robust collection of tools for customer relationship management, price quoting and enterprise resource planning. The company's global data warehouse also went live in 1999, consolidating inventory, order and customer forecast data to optimize inventory around the world and help spot trends and potential problems. With just a few clicks of the mouse, customers from Canada to Croatia could track order status 24 hours a day. An engineer could research end of life, manufacturing and other pertinent design information. A salesperson could instantly compare prices, capabilities and other parameters. Information technology made it possible, and *InformationWeek* magazine ranked Avnet fourth among the Top 500 Technology Innovators in the United States in 2000.

Through acquisition and organic growth, Avnet's computer products operation continued to prosper. Networking hit its stride in the 1990s, with work stations and personal computers evolving to serve as a business' data storage hub, largely displacing traditional mainframes and minicomputers. Avnet began to organize its computer business around three models: computer systems to end users like schools, governments and corporations; telesales of desktop equipment to end users buying in large volumes; and peripheral equipment and computer components to resellers. The 1993 Hall-Mark acquisition gave the group a well-established high-end UNIX systems sales business. By the mid-1990s, it counted the hottest computer products companies among its suppliers, including AT&T, Digital Equipment Corp., Hewlett-Packard, IBM, Intel, Motorola and Texas Instruments.

When the Computer Marketing Group finally separated from the Electronic Marketing Group in 1998, it already accounted for almost 25 percent of Avnet's business and had a few decades of experience under its belt. Value-added services would differentiate Avnet here, too, and the Computer Marketing Group's technical sales and marketing capabilities put it ahead of the pack. The acquisitions of the Savoir Technology Group in San Antonio and RKE Systems in 2000 were the icing on the cake, making Avnet the world's largest distributor of IBM mid-range computer products (establishing Avnet's first $1 billion relationship) and substantially expanding its influence in Europe, including a key Compaq franchise. With 83 percent of its sales in hardware and 11 percent in software, Avnet's computer products and services were in demand.

So were embedded systems. In 1999, Avnet established a third operating group, Avnet Applied Computing, to target customers using off-the-shelf, commercially available computing products — embedded systems like servers and memory modules — as the building blocks for their own, more complex products. The group had well over $1 billion in revenue its first year in business.

An Avnet design engineer in India discusses a customized solution.

When the decade began, Avnet was primarily a North American components distributor still shy of $2 billion in sales. By the end of it, the company had exploded onto the international stage, with electronic component and computer products operations in 59 countries and $6.3 billion in revenue — a figure that would almost double just two years later. Although it continued to wrestle with the supply cycles that had come to define the electronic components industry — oversupply and low margins followed by buying sprees and high-use parts on allocation — Avnet was, without doubt, a global distribution powerhouse in the world's most dynamic economic sector.

VALUE-ADDiction

In the high-tech world, neither research and development nor manufacturing come cheap. As technology has advanced, the complexity and breadth of the services suppliers and customers request of their distribution partners has increased exponentially.

Using embedded solutions helps Avnet's customers get products to market faster.

To focus on their core business, they ask those that partner with them to be experts in an array of support services. Kitting, assembly and special packaging have been joined on the list of must-haves by application-specific integrated circuit (ASIC) design, memory and logic device programming, engineering and turnkey board assembly. For computer products, the list includes subsystem assembly and network integration. Financing, shipping, technical support and marketing are de rigueur. So are supply chain services like point-of-use replenishment systems, in-plant stores, just-in-time delivery and electronic data interchange. Using distributors' expertise allows component and computer product manufacturers to reach far more customers than they could afford to alone.

SUPPLY CHAIN SERVICES

With Avnet positioned at the center of the technology supply chain, it stands to reason that the company should provide expertise around the flow of materials from suppliers to manufacturers. In 1996, the company established a division dedicated to doing just that, Avnet Integrated Material Services (IMS). Focusing on electronics marketing, IMS is now itself a business under the supply chain services umbrella. It has grown to include bill of materials management boasting life cycle and technical information on more than nine million components. Supply chain services counts among its hundreds of customers technology powerhouses like Cisco Systems, Micron Technology, Celestica and Solectron, the latter of which are two of the world's largest contract manufacturers. Avnet's supply chain services business has exploded.

LOGISTICS & SOLUTIONS CENTERS

Avnet's megawarehouse concept has flourished. The company reached a milestone in 1992 when its U.S. warehouses received the International Organization for Standardization's quality standard (ISO 9002); all have since followed suit. There are now logistics and solutions centers in the United States (two), Germany, Belgium, Singapore, Hong Kong and China. They are the heart of Avnet's supply chain and other value-added services. Every day, these centers and their smaller satellite facilities ship 26,000 line items, process 350,000 connectors, assemble 13,500 cables and program 326,000 devices, with the capacity to do more. Avnet has more than 1 million square feet of warehouse space around the world, a quarter of which is dedicated to value-added services.

Tongeren, Belgium, Logistics and Solutions Center

In 2004, Avnet established Avnet Logistics to further streamline the supply chain. With expertise in everything from inventory warehousing to transportation management, component and computer subsystem suppliers rely on Avnet for cost-effective global fulfillment, leaving them to concentrate on what they do best: researching, developing and manufacturing tomorrow's technological breakthroughs.

ENGINEERING DESIGN

Avnet Design Services (ADS), established in 1997, grew out of a simple customer request in New Zealand for an Avnet engineer to help design a new product. Now its customers are a *Who's Who* of cutting-edge companies, including General Dynamics, Emulex and Garmin. ADS provides engineers with technical advice on component, hardware and software solutions, design and prototype services, and test and production assistance. The goal: Get customers' new products to market faster. The competition is intense. In 1997, the average time from prototype to production was 14 months. Today, it's just six.

The 2005 acquisition of Memec bolsters Avnet's expertise in designing suppliers' components into customers' systems.

Avnet Design Services, Munich, Germany

By supporting engineers, ADS locks in proprietary components like embedded processors, field programmable gate arrays (FPGAs), ASICs and analog integrated circuits at better margins from top suppliers like Xilinx, Texas Instruments and Freescale Semiconductor. A 2005 franchise with Microsoft allows ADS to engage customers at the earliest design stages; operation system software often dictates hardware architecture. ADS' development boards and tools are also sought after for communications, instrumentation and industrial hardware. More than 4,000 customers call on Avnet for this support, a 350 percent increase in five years.

SOLUTIONS

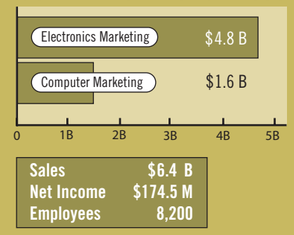
For computer products, solutions are the name of the game. Certainly, Avnet Technology Solutions is well-versed in distributing central processing units (CPUs), mass storage, displays, embedded computing boards, motherboards, memory modules, and networking and software products. But more importantly, it links these essential pieces together through creative solutions unique to every customer, be they original equipment manufacturers, value-added resellers, system builders or integrators, independent software vendors or end users. Solutions combine technology and services to solve a client's business problem.

An Avnet technician inspects IBM hard drives prior to system assembly.

IT infrastructure design and management. System configuration and procurement. Product prototyping and configuration. Intelligent information. Building channels to market. They're all about lowering partners' costs and helping them get to market first, and they're in demand. In 2000, 55 percent of the money companies spent on IT was for solutions (as opposed to hardware and software), a figure that's rising almost 4 percent every year. By 2005, IT solutions accounted for two-thirds of medium-sized business' purchases.

In 1995, Avnet's revenue from value-added services surpassed $1 billion. The following year they were referred to as the company's core competencies. In 2004, with 16 distribution, programming and value-added centers globally, Avnet counted more than half its revenue on the electronic components side as derived from value-added services. Avnet Technology Solutions emphasizes solutions selling as its number one priority. Outsourcing continues to gather steam in the new millennium and shows no sign of abating, and Avnet is committed to finding new ways to be of service.

COMPANY SNAPSHOT: 1999



Sales	$6.4 B
Net Income	$174.5 M
Employees	8,200

1996

1996 – Avnet's sales exceed $5 billion, with international sales of more than $1 billion; the company refers to value-added services as its core competency

1996 – Avnet Integrated Material Services debuts as the Electronic Marketing Group's materials management specialist division

1997

1997 – Avnet Computer Group sales reach $1 billion

1997 – Avnet is 100% focused on electronic components and computer products after selling the last of its Channel Master businesses

1997 – Avnet Design Services is launched to meet customers' demand for engineering and technical assistance

LAUNCHING AN INDUSTRY

From the earliest minicomputers and desktop models to today's multipurpose networks, Avnet has helped the computer industry grow and prosper. By 1982, the company had established relationships with:

OFFICE SYSTEMS
Altos, Digital Equipment Corp. (DEC), North Star

PRINTERS
Centronics, Datasouth, Diablo, DEC, IBM, Lear-Siegler, Okidata, Texas Instruments (TI)

TERMINALS
ADDS, DEC, Hazeltine, IBM, Lear-Siegler, Teletype, Televideo, TI, Visual Technology

MODEMS
Anderson Jacobson, DEC, Novation, Racal/Vadic

MEDIA
3M, DEC

APPLICATION SOFTWARE
Chang Labs, Digital Research, I.E. Modem, Micropro, Select Information Systems, Software Establishment, Sorcim, Systems Plus, CYMA, IMS, Innovative Software

Source: Avnet 1982 Annual Report

Y2Chaos That Wasn't

As the clock struck midnight on January 1, 2000, people all over the world held their breath, wondering if chaos would ensue… then exhaled a sigh of relief when nothing happened.

Decades earlier, computer programmers used two digits to represent a year, saving expensive computer disk and memory space but creating a problem as the new millennium approached — the "00" in 2000 would be mistaken for 1900. The problem threatened all major industries, including finance, utilities, manufacturing, telecommunications and aviation.

Companies around the world spent a total of $300-$400 billion to become Y2K compliant before the century's end. Avnet began its Y2K readiness effort in 1996, with 60 information technology (IT) employees examining and testing hardware and software, including all of the lines of code in its Genesis IT platform.

Avnet was so confident it was ready for Y2K that it took out ads in trade publications advertising an 800 number people could call to see how the company was doing as the clock rolled over in different time zones. Business and IT personnel at command centers in Asia, Europe and the Americas monitored Avnet's global Y2K status and provided updates.

For some companies, Y2K readiness projects came at the expense of other IT needs, and as a result, sales of computer products and services slowed down for several quarters for the Computer Marketing Group.

Sales of batteries, candles, nonperishable food, water and medicine took off, however — particularly in the weeks and days leading up to the event — because many people were unsure of what to expect. Fearful of banks collapsing, some people also hoarded cash, coins and even gold. But their fears were unfounded. Operations were largely unaffected and life went on much as it had before. Like Avnet, most companies had taken care of the problem months in advance, meeting self-imposed deadlines set long before the end of 1999.

LEON MACHIZ

PRESIDENT 1980-1988; CHAIRMAN & CEO 1988-1998

Some might call it luck. Leon Machiz would likely have called it a shrewd business move. Finding himself seated next to Lester Avnet at a charity function, he countered the Avnet CEO's request for a donation with a proposition of his own: Buy my company and I'll be happy to fill your coffers. Machiz' Time Electronic Sales and Electro-Air became part of Avnet a few months later, substantially strengthening the company's components distribution business on the East Coast and adding Leach relays and ITT Cannon connectors to the Avnet lineup.

Machiz would run the Time Electronics division until 1988, when Tony Hamilton passed away and he took the helm as Avnet chairman and CEO. He and Hamilton played well off each other, with Hamilton raising relationship management and sales incentives to an art form and Machiz, who served by his side as company president for eight years, doing the same for operational excellence and global expansion.

Machiz made his mark as an industry visionary when he put his megawarehouse plan in motion in the 1980s, consolidating more than 100 independent sales/stocking locations in North America into state-of-the-art high-tech facilities on the East and West Coasts. He also spearheaded Avnet's ascent onto the global stage, counting 23 acquisitions in the 1990s before retiring in 1998 at age 74. From the Golden Age of Radio to the Information Age, Machiz was an industry pioneer.

Competitive at heart, Machiz was also an avid harness horse racing fan, owning champion steeds like Tyberwood, whose winnings neared $1 million in 1999. Chess, backgammon, tennis and golf were favorite pastimes. Machiz' charity and board work included the Jackie Robinson Foundation and New York's North Shore University Hospital. He received the Ellis Island Medal of Honor in 1998 for his contribution to American Society and The Cooper Union University's Distinguished Alumnus Award in 1994 for his achievements in the electronic distribution business.

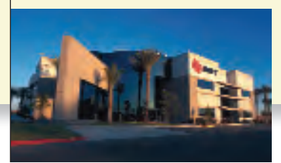
1998

1998 – Avnet, IBM, Microsoft and others form RosettaNet to implement Internet standards for supply chain transactions

1998 – With almost 25% of Avnet's business, the Computer Marketing Group separates from the Electronic Marketing Group, which is renamed Avnet Electronics Marketing

1998 – Leon Machiz retires; Roy Vallee becomes chairman and CEO

1998 – Avnet moves its corporate operations to Phoenix and becomes the largest publicly held corporation headquartered in Arizona



1998 – Legacy Hamilton and Time brands are retired in the Americas as the Electronics Marketing Group reorganizes around product categories and value-added services

1998 – The Computer Marketing Group expands into Europe with the acquisition of the U.K.'s reseller-focused Bytech Systems

1999

1999 – Most European and Asian operations are integrated on a single multilingual, multicurrency SAP network

1999 – Avnet opens its distribution center in Singapore and China Gateway Warehouse in Hong Kong

2000

2000 – Avnet aquires the EBV Group and RKE Systems, part of the VEBA Group of electronics distribution companies


Poing, Germany

2000 – Avnet posts its first $1 billion sales month

Distribution: A Short History

1920s

Entrepreneurs making the best of World War I radio parts surplus create thriving businesses in port cities. The most famous is New York City's Radio Row in Lower Manhattan, where Charles Avnet, founder of Avnet Electronic Supply Co., begins selling radio parts. Charles Kierulff, who will establish Kierulff Electronics, is doing the same on the West Coast. In Chicago, crystal radio set manufacturer Simon Wexler establishes Allied Radio and will publish his first catalog in 1932. The Radio Manufacturers Association comes together to address technical standards, legislation, patents and merchandising. It will become the Electronic Industries Association. *Radio News* magazine enjoys widespread popularity.

Seymour Schweber (left)

1930s

With the Golden Age of Radio in full swing, radio gear is in high demand, from replacement parts and kits to manufactured products for homes and cars. In New York, Murray Goldberg opens Arrow Radio to sell radio equipment and appliances. Sam Poncher, who'd set up shop in 1927 as Midwest Radio Mart with the profit from a roomful of radio parts he bought for $500, purchases Newark Electric (basically, another warehouse of spare parts) and renames his business Newark Electronics. It is not unusual for manufacturers to have 100 or more distributors in major cities and thousands nationwide to cover the widest possible market. Industry organizations spring up to promote good relations between manufacturers, distributors and sales reps. The National Electronic Distributors Association (NEDA) takes wing in Chicago as the National Radio Parts Distributors Association. So does The Peddlers, the first national sales representative organization, now the international Electronic Representatives Association. The first Electronic Distribution Show is held in Chicago as the Radio Parts Manufacturers National Trade Show. *Radio Jobber News* and *Parts Jobber Magazine* pave the way for the flurry of industry publications to come.

1940s

With the United States' entry into World War II civilian radio manufacturing is banned, but a healthy trade in replacement parts and new government demands keeps many companies in business. When the war ends, mountains of military surplus components become available and are gobbled up by enthusiastic consumer product and industrial equipment manufacturers. Component distributors flourish. Al Cramer buys Hatry and Young, a Boston ham radio and hi-fi retailer, and founds Cramer Electronics. Leon Machiz and Seymour Schweber start Life Electronics Sales, eventually separating to establish Time Electronic Sales and Schweber Electronics, respectively. Television not only gives radio listeners something new to ponder, it creates a very lucrative market for distributors' wares.

The Poncher brothers

1950s

The U.S./Soviet Union space and arms races accelerate technological experimentation, and distributors again focus on military and aerospace components. They also turn their attention to transistors, the invention of which will make or break many as their predecessors, vacuum tubes, fall out of favor. In 1957, Tony Hamilton founds Hamilton Electro Sales and scores a contract for General Electric tantalum capacitors. The semiconductor industry surpasses $100 million in sales in 1957, but it ain't seen nothin' yet — the integrated circuit, invented in 1958, will revolutionize electronics.

1960s

As people begin to realize the potential of the integrated circuit, distribution explodes. Jack Turpin forms Hall-Mark Electronics with a Motorola franchise in 1961, and Pioneer-Standard's industrial distribution business in the Midwest flourishes. Texas Instruments raises its distributor order limit for semiconductors to 50,000 pieces, forcing similar moves by Motorola, Transitron, Fairchild and National Semiconductor (prior to that, orders had been capped much lower). It's also an era of mergers and acquisitions. Avnet buys Hamilton and Time. Outside companies like aluminum supplier Ducommun and Wyle Laboratories begin to get into the game by purchasing Kierulff, Liberty Electronics and others. Europe sees the birth of its first electronics distributors, too: Germany's Spoerle Electronic and EBV Elektronik, which starts with a single Motorola franchise. At the end of the decade, Allied leads the pack with sales of electronic components nearing $100 million.

Erich Fischer
Founder, EBV

1970s

Distributors challenged by cutbacks in defense and aerospace spending at the beginning of the decade soon find themselves sitting pretty with Intel's release of the first mass-market microprocessors. The coming-out party lasts only a few years, though, as over-ordering meets the most severe recession since the Depression. Distributors test their supplier franchise agreements by demanding contractual inventory returns. Industrial production and sales of consumer and electronic products plummet. Still, the top 25 electronic component distributors surpass $1 billion in sales in 1976. In 1978, the Electronic Industries Association reports that electronic distribution sales have more than doubled in the previous five years. While Avnet Electronic Marketing Group's sales quadruple during the same period and the company as a whole will surpass $1 billion in revenue in 1979, Cramer cannot recover and is acquired by Arrow. In Europe, the cast of characters is growing, with Memec, Rutronik and others joining the competition. Future Electronics is founded in Canada. The 1970s also sees the launch of industry publication *Electronic Buyers' News* and Las Vegas' Comdex technology trade show. American manufacturers are beginning to discover the economic potential of efficiency the hard way as Japanese consumer electronic products make their way onto domestic shelves for unheard-of low prices.

1980s

Sales of personal and business computers take off and Avnet, Arrow, Lex and others acquire companies to expand their position in this burgeoning market, taking distribution beyond components to board-level and development systems, peripherals, microcomputers, software and networks. It brings new players onto the field as well, including Tech Data, Ingram Micro and SYNNEX. Acquisitions allow many U.S. distributors to establish a national, rather than regional, presence. Of course, the need for semiconductors, connectors and other electronic devices soars, but component makers and distributors alike are tested ruthlessly when Japanese companies continue to dump low-cost products on world markets to gain share. The ensuing trade war ensures American and Japanese lines will not share distributors' shelf space for two decades. Mexico enjoys a rising population of border town maquiladoras as American manufacturers search for low-cost labor, and distributors begin expanding their relationships appropriately. In Taiwan, World Peace is established representing supplier Texas Instruments. The first Europartners Electronic Components Distribution Forum is held in Paris, and the Distributors and Manufacturers Association of Semiconductor Specialists is formed. Arrow buys Kierulff in 1987 and surpasses $1 billion in sales. Arrow is also the first American distributor to put a flag in the ground in Europe, investing in Spoerle and Silverstar.

1990s

Riding the wave of supplier and customer globalization — which is riding the wave of information technology capabilities — industry consolidation begins in earnest in the United States and Europe. Avnet will acquire more than 40 companies by the end of the decade, with Arrow in lock-step as the two vie for the title of No. 1 global distributor. In Europe, Raab Karcher goes on a tear, buying Memec, EBV and Wyle. Not to be left out, World Peace opens an international office in Singapore, establishes relationships with suppliers Intel, Philips, IDT and distributor Pioneer-Standard, and goes public on the Taiwan Stock Exchange. Kierulff, Pioneer-Standard, Hall-Mark, SEI, Hatteland Group, Kent Electronics and a host of other distribution stalwarts are bought by bigger fish. So is Marshall Industries, but not before it launches the industry's first Web site. The flurry of acquisition activity is not going unnoticed by suppliers, who pare down the number of distributors they use since information technology and overnight shipping have rendered the need for local inventory obsolete. American and Japanese component manufacturers make up, to broadline distributors' great delight. Distributors fend off advances by Internet companies and logistics specialists intent on unseating them as intermediaries in the technology supply chain that links component makers and product manufacturers to their customers. They also form partnerships with complimentary dot.com companies. The RosettaNet consortium of companies throughout the technology supply chain is formed to create and implement e-business standards. So is the Global Technology Distribution Council, which focuses on information technology supply chain issues. It is composed of top names like Ingram Micro, Avnet and Arrow, along with others around the world.

2000s

Electronic components supply chain practices are severely tested and generally found lacking as yet another cycle — once again, the worst in history — of overly exuberant ordering is revealed. Old-fashioned financial metrics like return on capital regain favor, and distributors polish their services and solutions to boost profit and differentiate themselves as electronic components and computer products become increasingly commoditized. The European Union is busy, introducing the euro to simplify business processes and, in an environmental shot heard 'round the world, legislation banning common but hazardous technology manufacturing materials and processes. Asia enjoys healthy growth as its gross domestic product rises and outsourcing to China, Taiwan and India continues its upward spiral. World Peace's revenue exceeds US$2 billion in 2004, and it enters into discussions for the acquisition of Silicon Applications Corp., which would add another $1 billion. Avnet acquires Memec, giving it entrée into Japan and making it the No. 1 global distributor once again.

Avnet's Class 100 clean room for flat panel assembly and integration is a first for the distribution industry.

"In a global economy, business migrates to the most efficient provider. That means products and services. We intend to be the highest value provider."

– Roy Vallee
May 17, 2001
Purchasing Magazine

2001-2005

CHAPTER 6

The Value Creation Era

TAMING THE BULLWHIP

The "bullwhip effect" rules the semiconductor industry. Companies double order components to ensure a continuous flow, leading to false forecasts and wild supply/demand fluctuations. Why? It takes about three months to make a semiconductor. Couple that with rapid innovation and a short consumer attention span and you have a recipe for volatility.

Compare it to the fashion industry. Who can predict taste? Yet store buyers must make a best guess every season. It takes months to manufacture clothes and get them to stores on time. There are long product development cycles where time to market is critical, pricing pressures and short windows in which early entrants command higher margins. Sound familiar?

Will the cyclicality ever abate? It seems unlikely. The cycle that began in 2001 is the eighth in 30 years. Outsourcing is creating an ever-more-complex supply chain. "Design anywhere, build anywhere" is the new manufacturing paradigm. Avnet may not control industry dynamics, but its supply chain analysts do the next best thing. By aggregating forecasts from more than 100,000 customers across multiple industries and creating a proxy for true demand, the company acts as a safety valve, mitigating inventory risks.

Someday, with the help of information technology and better visibility, cycles may become a thing of the past. For now, Avnet helps its partners reduce the impact those inevitable upturns and downturns have on the technology supply chain.

21st Century Avnet

The turn of the millennium was a celebration on a global scale and a more intimate one as well. Avnet Electronics Marketing was just coming out of a three-year semiconductor oversupply cycle — up to that point, the longest ever — that drastically reduced profit.

Sales were picking up for the Computer Marketing Group as corporations, governments and other end-users put their Y2K readiness purchasing behind them and began focusing on optimizing their servers and networks again. Driven by the cyclical upswing, post-Y2K purchasing, dot.com boom and Avnet's own acquisitions, revenue grew 44 percent in 2000 and the company posted its first $1 billion sales month.

What a difference a year would make. No one predicted it. And no one was prepared for it. The industry's "perfect storm" seemed to come out of nowhere, a confluence of market and industry forces so powerful it shook the technology supply chain to its core, creating the most dramatic and extended downturn ever seen. The economy slowed worldwide. Demand for electronic equipment withered, especially in the saturated telecommunications market. And after a year of rising prices and parts shortages, speculative components purchasing led to a supply chain bloated with excess inventory. The consequences were swift and brutal. Demand for suppliers' components came to a screeching halt. Manufacturers were stuck with far more than they could use. Everyone tried to offload their components to the grey market for pennies on the dollar, creating stiff competition for distributors. Across the industry, talk turned to debt reduction, inventory write-offs and layoffs.

Avnet Technology Showcases like this one in Phoenix allow customers to test-drive the latest technology.

For Avnet, revenue fell 35 percent in 2001 alone, and earnings plummeted from $0.69 per share in December 2000 to -$0.16 nine months later. The company certainly wasn't alone. From March 2000 to March 2001, the market value of 12 major manufacturers dropped more than $1 trillion!

Avnet went full steam ahead into cost reduction mode. A year after the downturn reared its ugly head, the company had reduced working capital and debt by more than a $1 billion apiece. Two years afterward, operating expenses had been slashed $400 million and debt was cut another $1 billion. By the beginning of 2004, the market stabilized and the frenzy to remove cost from the business abated. Record asset velocity (how fast Avnet gets paid, how often inventory turns over), revenue, gross profit, earnings per share and operating expense returned to their best levels in three years. Whew! Although it was decidedly not pleasant — the company lost about a third of its employees and revenue, from $12.8 billion to $8.9 billion annually — Avnet had created a lean company ready to capitalize on a recovering market.

The company had been circling around the idea of value-based management since the late 1990s — it had done something similar after its 1960s acquisition phase — and the downturn kicked that effort up a notch. For years, Avnet focused on accounting profit, growing revenue, capturing market share and creating a global footprint. Now, it turned its attention to economic profit. "ROCE!" became the new battle cry, measuring profit not as a percent of sales, but as a return on the capital employed to run the business and finance growth. Hundreds of managers around the world have been, and continue to be, educated on the concept, and a Shared Business Services organization is streamlining the company's back office functions.

The technology downturn wasn't the only catalyst for this renewed, and widespread, infatuation with sane business practices. In 2000, the dot.com bubble burst when fiscal reality — return on investment, anyone? — finally caught up with superheated technology stocks, returning them to their proper share value with a resounding thud. The NASDAQ lost 75 percent of its value in three years. And in the early 2000s, the FBI, the Securities and Exchange Commission and a flotilla of lawyers had their hands full with a rising tide of corporate accounting scandals.

Avnet has long insisted on the highest ethical standards in its accounting and governance methods. The company found significant changes to its practices unnecessary beyond strengthening its monitoring, training, communication and documentation activities to respond to public concerns and new legislation. As for the dot.com debacle, Avnet had been arguing for years that disintermediation — taking out distributors, retailers, wholesalers and other intermediaries between manufacturers or service providers and the ultimate customer — by Internet companies promising to do it cheaper and faster was nothing more than hype. Quite simply, people need a significant amount of value added to many

2001-2005 YEAR-TO-YEAR

2001

2001 – The company posts a record $12.8 billion in annual revenue, but Avnet's books begin to reflect the historic downturn that will stun the global technology industry

2001 – *Computerworld* magazine ranks Avnet 7th on its list of the "100 Best Places to Work in IT"

2002

2002 – For the first time in its history, Avnet's earnings dip into negative territory

2002 – In celebration of Avnet's industry leadership, Chairman and CEO Roy Vallee rings the closing bell at the New York Stock Exchange

2002 – The U.S. signs the Sarbanes-Oxley Act into law in response to corporate accounting scandals

2002 – *Working Mother* magazine includes Avnet as one of the "100 Best Companies for Working Mothers"

2002 – Best Practices in Corporate Communications ranks Avnet's Web site, www.avnet.com, 4th among 529 companies in using the Internet to boost growth and reputation

2002 – Avnet hosts a seminar on doing business in China in conjunction with the Phoenix Art Museum's exhibition *Secret World of the Forbidden City*

products before they can buy and use them. In Avnet's case, that means helping companies with everything from engineering expertise as new ideas come to life to tech support long after products have been manufactured and purchased, not to mention financing, programming, marketing, integrating and yes, even distributing technology products. Certainly, the Internet has refined the supply chain, but it cannot replace the expertise offered by Avnet and others adding value within the distribution channel.

In fact, the outsourcing trend — focusing on one's core business while letting experts in other areas do what they do best — has accelerated steadily, touching almost every aspect of business, from finance and customer service to information technology, manufacturing, and research and development. Closely related is off-shoring, the longstanding habit of companies seeking low-cost labor, particularly for high-volume manufacturing.

After the passage of the North American Free Trade Act (NAFTA) in 1991, many of Avnet's U.S. customers built manufacturing facilities in Northern Mexico and were pushing the company to support their needs there. Avnet did so first from existing locations north of the border, later adding a sales, warehouse and programming facility in Guadalajara and offices in Monterrey and Mexico City. The company also established a presence in Puerto Rico and Brazil.

Avnet Technology Solutions opened its global headquarters in Tempe, Ariz., in 2000 (as Avnet's Computer Marketing Group).

In Mexico, growth was spectacular — 169 percent in 2000 — but was severely affected by the technology downturn and a manufacturing shift to even lower-cost China. Avnet made inroads into that country in 2000, entering an Internet venture with the Chinese government, ChinaECNet, and purchasing components distributor Sunrise Technology the following year. Echoing Mexico's heyday, growth rates have been phenomenal there, too, with Avnet up 50 percent in 2002 and 2003 across Asia (the lion's share from China), though it was tempered in 2004 by a typical inventory correction. With locations in 10 Eastern European countries, the company is ready to take on a manufacturing shift to that region, too, when and if it happens.

A celebration at the Great Hall of the People in Beijing recognized the launch of ChinaECNet to market components.

Today's global technology market is a complex web of electronic component and subassembly manufacturers, contract manufacturers, original design and equipment manufacturers, and logistics providers. There are also independent software vendors, system builders, system integrators, value-added resellers and end-user customers. Avnet touches each and every one. Wherever they choose to do business, companies turn to Avnet for two simple reasons: We save them money and/or we help them grow faster, thereby increasing their profit. While traditional physical distribution is still at the core of the company's business, the spotlight is on new value propositions built around and leveraging that core.

As companies maneuver their supply chains through regions with differing languages, laws, logistics, time zones and partner relationships, maintaining a steady flow of components to manufacturing operations while avoiding unnecessary inventory risk can be daunting. Avnet aggregates electronic components forecasts from customers and their trading partners and filters them through the company's lens, improving accuracy and vastly simplifying their supply chains. The company's just-in-time, point-of-use inventory programs provide pinpoint accuracy for partners of all sizes. From in-plant stores to bonded inventory reserved for specific

Technicians at this Avnet Technology Solutions Integration Center integrate more than 15,000 systems and components each year.

customers, Avnet tailors materials management programs for some of the most respected manufacturers in the industry: Alcatel, Celestica, General Electric, Hon Hai Precision Industry, Jabil Circuit, Plexus, Sanmina-SCI, Siemens and Solectron. Avnet also reproduces manufacturer-supplied codes onto integrated circuits at nine state-of-the-art programming centers around the world. Connector and cable assembly, motor and power modification, and other value-added services help customers make their operations more efficient.

When it comes to designing products, Avnet's total-systems approach helps manufacturers integrate technology from component suppliers like Analog Devices, Freescale Semiconductor, Infineon Technologies, Intel, National Semiconductor, ON Semiconductor, Philips, Texas Instruments and Xilinx. Avnet has nine design centers in five countries: China, India, Israel, Singapore and the United States. Manufacturers rely on Avnet engineers to help them analyze and choose the best component solutions from among the vast array available. Avnet's engineers also integrate components from multiple suppliers into reference and evaluation kits that solve real-world problems. Seminars, evaluation kits and training programs provide hands-on experience with new technologies. Online search tools allow manufacturers to research thousands of components to fill entire bills of materials. Avnet also offers demand creation programs that extend its suppliers' products into untapped markets early in the design cycle. Avnet establishes relationships around the world to deliver advanced support in hardware design, embedded software development, ASIC (application-specific integrated circuit) and FPGA (field programmable gate array) design, and the latest digital consumer and wireless technologies. The acquisition of Memec strengthens Avnet's design chain services.

At Avnet Technology Solutions, the focus is on marketing and selling mid-range to high-end servers, data storage, software and networking solutions, and the services needed to implement them. With more than $2 billion in sales of their computer products annually — almost a sixth of Avnet's total revenue! — Avnet is IBM's number one distributor and number one customer. Other top suppliers include AMD, Cisco Systems, EIZO, EMC², Hewlett-Packard, Intel, NetApp and Oracle. For its customers, Avnet provides flexible assembly, technical, marketing and finance services, and certified integration from dedicated centers in Arizona and Belgium. Innovation centers focusing specifically on IBM products in Texas, New York, Mexico, the U.K. and Hungary provide assembly services plus system configuration and support, software preloading and system customization. Online tools help customers configure pre-certified computing and networking solutions, automate order management and access a wealth of business information to increase productivity and reduce costs. In 2005, the group established a center of excellence to determine how best to capitalize on the trend toward standardization.

Companies turn to Avnet for two simple reasons: We save them money and/or we help them grow faster, thereby increasing their profit.

Long a reality for electronic components, now commodity microprocessors, open source software, peripherals, hard drives and even servers are making their presence felt in the battle for market share against branded, proprietary products.

For 84 years, Avnet's innovative culture and entrepreneurial spirit, coupled with its commitment to customer service excellence and its strong business relationships, have assured partners they have chosen well. The company's global scope and economies of scale, talented people and focus on value-based management ensure that it will continue to be a leader in the technology industry. Welcome to Avnet's value creation era!

Avnet Technology Solutions opened its Solutions Center in the U.K. in 2003 to fully integrate servers, software and storage for demonstrations, proof-of-concept activities, solutions porting and technical support for business partners.

INTEGRITY SERVES AVNET WELL

Enron. WorldCom. Global Crossing. During 2001 and 2002, one company after another became embroiled in accounting investigations. Avnet, however, enjoyed a stellar reputation for governance and making its shareholders' interests top priority, largely due to measures taken long before they were required or even popular.

Avnet had an independent board of directors before it was common practice. None of its members, with the exception of the chairman, is involved in daily operations. Years ago, board membership was the next step for senior vice presidents, but under Chairman and CEO Roy Vallee's direction, inside directors were replaced with independent ones to avoid conflicts of interest. That is just one reason Institutional Shareholder Services, which evaluates companies using a Corporate Governance Quotient based on 55 factors, consistently ranks Avnet higher than 98 percent of companies in the S&P 400.

Independence also helped Avnet meet some requirements of the Sarbanes-Oxley Act of 2002 ahead of schedule, but it was not the company's only advantage. Avnet already had a Code of Conduct providing employees with legal and ethical guidance. In 2005, a global chief ethics and compliance officer was designated. More challenging was the required documentation of financial policies and procedures. Avnet enlisted more than 400 employees to collect and prepare the necessary documents.

Integrity, the company's primary core value, is at the heart of all Avnet corporate governance initiatives. It starts at the top and permeates the organization.

Outsourcing and Off-Shoring

Outsourcing of manufacturing in the electronics industry may have gained popularity in the 1970s, but the concept has been around since the first hunters and gatherers decided to quit roaming around and form communities. The term is just another name for specialization, whereby companies subcontract business functions to other organizations to leverage competitive advantage in areas considered "core." Outsourcing is one of many strategic tools available to companies for the continual tinkering imperative in the ever-changing global economy.

Off-shoring, a related concept, accelerated and amplified the trend in outsourced manufacturing due to the lowering of global trade barriers in most developed and developing nations. As Alan Greenspan, chairman of the U.S. Federal Reserve Board, explains, "The largely unregulated global markets, with some notable exceptions, appear to move effortlessly from one state of equilibrium to another. Adam Smith's 'invisible hand' remains at work on a global scale." This has resulted in a gold rush to developing markets like China and India, with their almost unlimited reservoir of skilled and low-cost labor and vast new markets for manufactured products.

Electronics manufacturing services (EMS) providers got their start in Silicon Valley, Calif., in the late 1970s. Cottage industries like cable assembly and "board-stuffers" sprang up to support the fledgling semiconductor industry. The trend caught fire when manufacturers like IBM, Sanmina/SCI and Hewlett-Packard shed facilities to improve financial performance. As electronic products became smaller, cheaper and lighter, new manufacturing techniques such as surface mount technology necessitated huge capital investment in equipment, accelerating the outsourcing trend even further.

Avnet has been a key actor in the outsourcing and off-shoring drama. Through acquisition and organic growth in all major regions of the global economy, the company has evolved to meet the needs of an ever-expanding trading partner base. Avnet uses its expertise in information technology and logistics to create new services supporting EMS customers and their clients to allow other companies to concentrate on their own core competencies.

ROY VALLEE

CHAIRMAN & CEO, 1998-PRESENT

The story goes like this: Sitting at the head table during a sales pitch to Motorola, a very impressed Leon Machiz, then Avnet's chairman and CEO, whispered to a peer, "I wish we had someone like that working for us."

Well, that someone turned out to be Roy Vallee, who was in fact a Hamilton/Avnet vice president and regional director at the time. He soon found himself on the fast track to the ultimate corner office, named president of the Electronic Marketing Group's Hamilton/Avnet Computer division. Vallee's education for the company's top post came just as it had for most of his career — on the job. He served beside Machiz as president and chief operating officer for six years before taking the reigns himself in 1998.

Vallee's tenure has been one of extremes, from the heady days of globalization and industry consolidation to the challenges of managing through the worst downturn in technology industry history. Under his leadership, Avnet has grown from $5.9 billion in revenue to more than $13 billion with a presence in 69 countries (with the acquisition of Memec), including substantial operations in Asia, Europe, the Middle East and Africa.

In 2000, Vallee was honored as Executive of the Year by Arizona State University's College of Business-Dean's Council of 100, which selects a business leader each year "whose contribution is deemed significant to the nation, whose inspired management has created and sustained superior organizational performance and who exhibits the qualities of a role model for future business leaders."

He began his career in electronics distribution in California's Radio Products warehouse in 1971. From his first Avnet sales position in 1977 to managerial roles in electronic components and computer products, Vallee has poured his heart, business acumen, leadership skills and considerable charisma into making Avnet the best it can be.

Vallee is held in high esteem by his peers. In January 2004, he was named chair of the Global Technology Distribution Council. He is a member of the Center for Corporate Innovation and the board of directors for Teradyne (automated testing), Synopsys (design automation software) and RosettaNet (industry standards). He also serves on the Arizona State University advisory board and the Arizona Governor's Council on Innovation & Technology.

Chairman and CEO Roy Vallee hosts quarterly Town Hall meetings broadcast worldwide.

2003

2003 – The technology industry freefall comes to an end; markets stabilize

2003 – Avnet surpasses $1 billion in sales in Asia

2004

2004 – Avnet Logistics is launched to further streamline the technology supply chain

2004 – *InfoWorld* magazine ranks Avnet's B2B Partner Automation project 4th on its list of the year's best IT projects

2005

2004 – *InformationWeek* magazine ranks Avnet 3rd on its list of the best users of information technology

2005 – Avnet boasts 16 distribution, programming and value-add centers globally

2005 – Avnet outperforms 99.8% of the technology hardware and equipment companies in the S&P 400 in corporate governance

2005 – Avnet buys Memec, its largest and first global acquisition, making it the No. 1 distributor once again

2005/2006 – The European Union's laws regulating toxic chemicals in and recycling of electronic equipment go into effect; the Avnet Green Initiative helps partners find solutions

Going Global

ASIA: RIGHT PLACE, RIGHT TIME

Since the acquisition of WKK Semiconductors in Hong Kong in 1995, Avnet's fortunes in Asia have soared. The company posted its first $1 billion sales year in the region in 2003 and expects to double that by the end of 2006. From zero to $2 billion in just over 10 years — quite an accomplishment, considering it took Avnet almost 25 years after incorporation to post its first billion and another decade to post its second.

Why such phenomenal growth? Asia has long served as the world's manufacturing hub for high-tech consumer goods. When demand is hot, Asia exports explode. Video games, Internet appliances and digital everything — DVD players, MP3s, cameras, televisions, video cameras, etc. — continue to captivate buyers, as do products that blur the line between consumer and business expenditures like personal digital assistants (PDAs), laptops and cell phones. Tack on rapid indigenous economic growth and the shift of outsourced manufacturing to low-cost

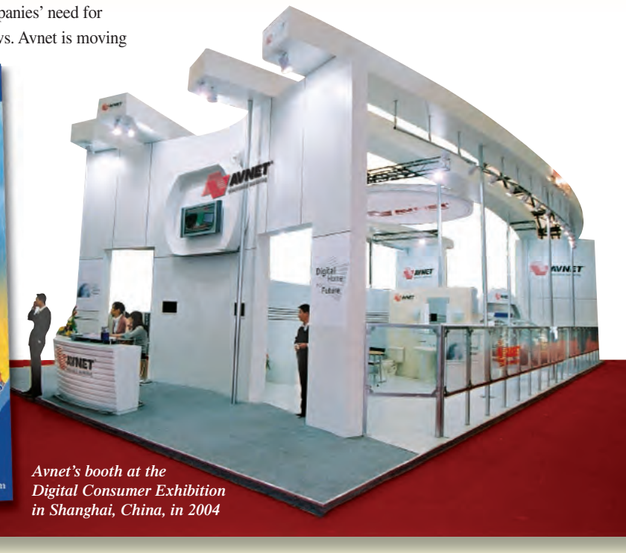
A design center, warehouse and training center are hallmarks of Avnet's Shenzhen, China, facility, which celebrated its grand opening in 2002.

regions, and you have an Asia economy powered by not one, but three potent growth engines, each of which reinforces the others.

Avnet is in the right place at the right time. In the mid-1990s, the company was fortunate to recognize that Asia, an untapped, fast-growth market, was important to its future. Manufacturers were branching out to new regions and suppliers were, for the most part, already operating globally. Avnet needed to expand its reach to ensure it could support them not only in the Americas and Europe, where it was already doing business, but in Asia as well. The company found local partners to acquire or enter into joint ventures with and added its resources and global capabilities, positioning itself to capitalize on the region's emerging prosperity.

Avnet has continued to invest in Asia, building an information technology infrastructure, adding people and establishing seven logistics/distribution centers. Hong Kong, Shanghai and Singapore, the region's headquarters, boast state-of-the-art programming centers. Singapore, India and China have design centers. Sales offices stretch from New Zealand and Australia to South Korea. The investment is paying off. Avnet has been growing profitably at roughly two times the market and as a result has gained significant market share. The region accounts for almost 25 percent of the Electronics Marketing Group's revenue and 14 percent of Avnet's. The acquisition of Memec opens the door to Japan, where Memec was a leading distributor. Rapid organic growth is the order of the day in China, Taiwan, South Korea and the ASEAN (Association of Southeast Asian Nations) countries.

Avnet Technology Solutions is beginning to make inroads as indigenous companies' need for networks and systems grows. Avnet is moving fluidly from one country or region to the next as manufacturing and consumer/business demand shifts.



Avnet's booth at the Digital Consumer Exhibition in Shanghai, China, in 2004

EMEA: TAKING WING

When Avnet purchased the Access Group, a U.K. semiconductor distributor, in 1991, it had one thing in mind: Get into Europe. Competitors Richardson and Arrow already had a stake there — not to mention indigenous distributors like EBV Elektronik — and with suppliers and customers entering markets around the world, there was no time to waste.

Although Avnet had traded in Europe since 1960, the focus in the 1990s was squarely on electronic components and computer products. Most of the continent's distributors were wholesalers. It was fertile ground for Avnet's rich array of value-added services.

The Access Group boasted franchises with some of the biggest names in the business, including Motorola, Intel and AMD. Avnet added companies across the continent in short order, along with two in Israel and South Africa.

The Avnet Programming Center in Poing, Germany, reproduces customer supplied codes onto programmable integrated circuits.

It established a start-up, Avnet Time, to distribute connectors and passive components. By 1995, Avnet was Europe's second-largest distributor and its fastest growing. Sales of $715 million were up 45 percent over the previous year. Despite the acquisitions, most of that came from organic growth. Avnet peddled its wares in 28 EMEA (Europe, the Middle East and Africa) countries.

Of course, assimilating acquisitions in so many countries in such a short time was not without its challenges. Avnet went live with a state-of-the-art SAP computer system in Central Europe in 1995 offering online, real-time information and multilingual, multicurrency capabilities. Although implementation was neither cheap nor smooth, the network supported most European operations by the end of the decade, opening the door to unified inventories, warehousing and asset management. Avnet established centralized facilities in Germany and Belgium for its warehousing, logistics, solutions and programming needs. Streamlining operations, fine-tuning relationships and reconciling trade and legal differences are ongoing efforts.

While early acquisitions focused on components, Avnet struck a balance with the purchase of the U.K.'s Bytech Systems in 1998, an Intel and IBM franchisee for software, storage and systems. Italy's PCD and Matica followed, adding IBM, Sun Microsystems and Hewlett-Packard enterprise computing systems. A German branch was established to market the IBM and Digital/Compaq lines. Today, Avnet is IBM's number one European distributor.

The acquisition of VEBA's EBV Group and RKE Systems in 2000 made Avnet the number one value-added semiconductor distributor in Europe.

Avnet's components business then received a major overhaul. Called "speedboats," divisions were reorganized around products, services and/or geographic areas. Success! After emerging from a tenacious recession and brutal semiconductor downturn, it saw a profit swing of $100 million from 2001 to 2004. Avnet is the region's top industrial distributor and its second-largest electronic components distributor.

Today, EMEA accounts for $3.4 billion in sales, one-third of the company's revenue. An organization birthed through acquisition is now able to grow organically through service, technology and distribution excellence.

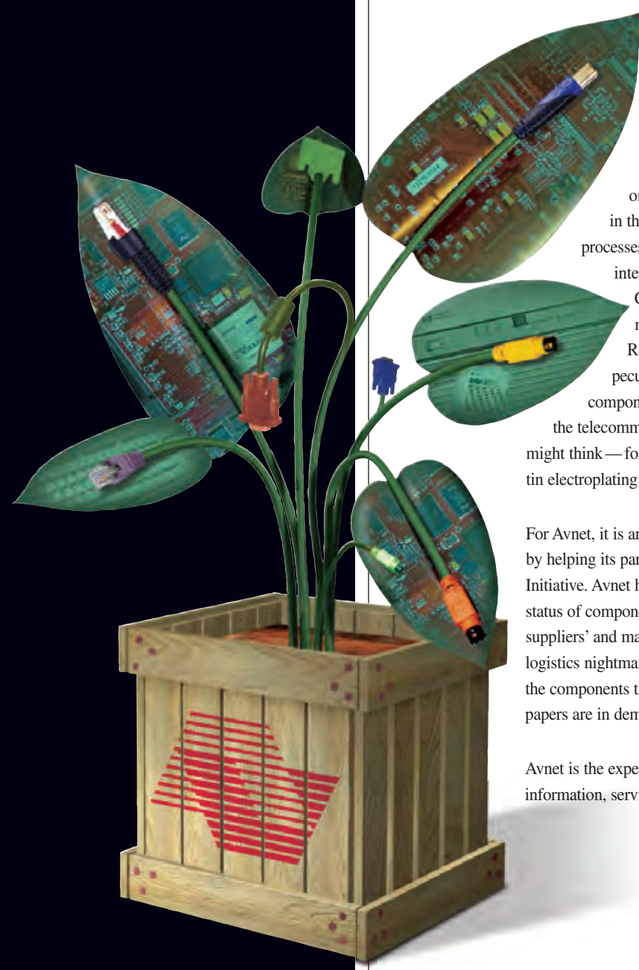
At the Avnet Integration Center in Nettetal, Germany, specialists customize computing equipment.

Technology Goes Green

Technology is going green. Electronic components, packaging materials and circuit boards are laced with lead, mercury, cadmium and other hazardous materials. Disposing of them raises sticky environmental and regulatory issues.

Avnet Green Initiative

People throw away more than 30 million tons of electrical and electronic equipment every year — everything from household appliances to televisions, toys, medical devices and tools. The European Union (EU) has taken a lead role in addressing the potential negative impact on human health by mandating, through its Reduction of Hazardous Substances (RoHS) directive, that most of the toxic materials be phased out of electronic products by July 1, 2006. Additionally, its Waste Electrical and Electronic Equipment (WEEE) directive sets criteria for the collection, treatment, recycling and recovery of electrical and electronic waste, affecting every business that manufactures, brands, imports, sells, stores, treats or dismantles such products within the EU.



Some would call such environmentally friendly legislation decidedly unfriendly to industry, but that's an old saw common to environmental movements everywhere. Certainly, the transition is an enormous undertaking, one of the most important supply chain issues of the past decade, and not just in the EU. Engineers must create products with the laws and new manufacturing processes in mind, which can be quite daunting when you consider the interconnectedness of global trade — even though something is designed in Canada and manufactured in Malaysia, if it's destined for the European market it must be compliant. Furthermore, China is considering adopting RoHS in 2006 and California may do so in 2007. The laws have their own peculiarities as well. For instance, lead solder in assemblies and electronic components will be banned, but it's okay to use it in servers, storage systems and the telecommunications infrastructure. Even the word "banned" doesn't mean what one might think — for homogenous materials (those that can't be separated from one another, like tin electroplating on a lead frame), illegal substances are allowed up to a certain concentration.

For Avnet, it is an opportunity to strengthen relationships, and perhaps forge some new ones, by helping its partners negotiate the new legislation through the company's Green/Lead-Free Initiative. Avnet has adapted its sales and warehouse information systems to capture the RoHS status of components. It has plans in place to deal with the inevitable mismatches between suppliers' and manufacturers' compliance plans and part numbering systems, a potential logistics nightmare. It offers a bill of materials cleansing service to assure trading partners the components they choose for their designs meet the guidelines. And, its seminars and white papers are in demand.

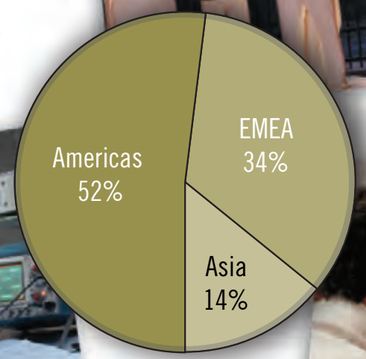
Avnet is the expert those in the technology industry supply chain are turning to for information, services and products as the green movement accelerates around the world.

AVNET AROUND THE WORLD

Suppliers and customers cite global reach as a key reason they choose Avnet. The Guadalajara, Mexico, sales office opened in 1997 and expanded to include a warehouse and programming center. In New Zealand, Avnet has sales offices in Auckland and Christchurch. France's BFI-IBEXSA joined the company in 1995. Altogether, Avnet does business in 69 countries. Turn to page 122 for more photos from around the world.

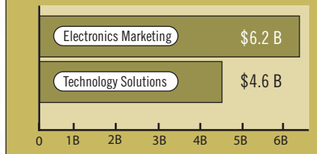
Mexico

France



New Zealand

COMPANY SNAPSHOT: 2005*



Sales	$10.9 B**
Net Income	$170.0 M
Employees	9,880

** Last 12 months ending April 2, 2005*
*** The acquisition of Memec will add approximately $2.3 billion in sales and 1,000 employees*

9/11: A Tribute

This historical account would be incomplete without a tribute to the resilient spirit that makes us human and a mention of the warm outpouring of support following the infamous terrorist attacks on the World Trade Center in New York, the Pentagon in Washington D.C. and the brave take-down of an aircraft under siege in a field in Pennsylvania on September 11, 2001.

People reached out for one another, connecting on a deeply personal level without regard for national borders or religious differences. Avnet employees donated generously to aid agencies, with the company matching many of their gifts monetarily. The Red Cross and United Way received nearly $300,000. Countless other efforts were noted in Avnet locations around the world.

During those dark days, employees never lost sight of the company's mission to serve customers, suppliers and each other. Avnet's cross-functional Emergency Response/Disaster Recovery Team sprang into action, coordinating business operations and logistics, updating employees on related issues and helping those traveling on business get back home, including more than 1,000 people stranded at an Avnet IBM Partner Conference in San Antonio by the U.S. moratorium on air travel. Kudos to FedEx and UPS, which rallied to the challenges presented by their customers across the globe.

With the tremendous advantage of global scale and scope and the dedication of some 9,900 employees, Avnet carried on with business as close to usual as could be humanly expected under the circumstances.

On September 14, 2001, Avnet employees at its corporate facility in Phoenix gathered for a memorial service for the victims of the September 11th tragedy. One of the first airplanes permitted to resume flights is seen landing at Phoenix's Sky Harbor Airport adjacent to the building.

Avnet's Los Angeles and Orange County, Calif., teams (shown above) rally for an "On the Move" promotion in 1968.

Today, the company's premier incentive programs, President's Club and Excalibur (represented by the lei and sword at far right), celebrate employee performance excellence.

"There really is no simpler way to say it: Our people are our brand. With every action, every interaction, internally and externally, our people tell the Avnet story. The brand walks on two feet."

–Steve Church
Avnet Sr. Vice President
and Director of
Organizational and
Business Development
February 2004

CHAPTER 7

The Brand Walks on Two Feet

The Face of Avnet

Since 1921, thousands of people have lent Avnet their talent, from the entrepreneurial salesmen who pioneered the electronics distribution business to the knowledge workers supporting the organization today.

Technology has changed their work environment dramatically. Dial telephones, manual typewriters, punch card machines and handwritten orders are quaint relics of a bygone era. Today, people are in virtual contact with their partners and peers 24 hours a day via the Internet, cell phones and personal digital assistants, tracking orders, managing inventory and even remembering birthdays with cutting-edge electronic data interchange and customer relationship management systems.

Just as technology has evolved, so have the people working in the industry. No longer is the bootstrap salesman the face of distribution. Now that saleperson is likely to have an engineering, supply chain management, business or international studies degree behind him — and he is just as likely to be a she. In-house training has also expanded to include not only line card data but classes in effective communications, operations, finance, customer service excellence, leadership, ethics, strategic planning and value-based management. Avnet is proud to call itself a learning organization. Avnet also prides itself on recognition programs designed to honor and celebrate outstanding performance through public acknowledgement, awards and prizes.

Each week, an online survey asks employees to weigh in on everything from sporting events and pet preferences to time use and technology issues. Every year, a formal survey is administered by Watson Wyatt to take the pulse of the company, eliciting feedback on job satisfaction, operational excellence, communications and more. Armed with such data, the Avnet leadership team is able to make better-informed decisions to enhance the company for customers, suppliers, employees and shareholders.

Who is the face of Avnet today?
Take a look.

SEEMS LIKE A LIFETIME

23% have worked in the distribution industry 1 to 5 years
7% have worked in it for more than 25 years
53% have only worked for Avnet
22% have worked for more than 3 distributors

WHO'S DRIVING THIS BUS?

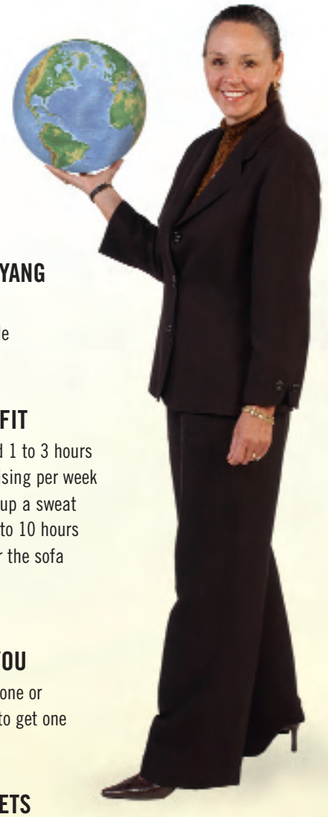
60% say customer interests drive their decisions
55% say that's as it should be

COMMUNITY OUTREACH

88% participate in, fundraise for or donate money to charities

GET ME OUTTA HERE!

83% go on vacation
25% visit family or stay home
24% would love to visit Australia



YIN AND YANG

55% male
45% female

STAYING FIT

33% spend 1 to 3 hours exercising per week
5% work up a sweat for 8 to 10 hours
10% prefer the sofa

TATTOO YOU

24% have one or plan to get one

HOUSE PETS

43% bark
23% meow
15% like it quiet at home

SIGNIFICANT OTHER

23% met at work
17% met through family or friends
12% are still looking

ARTISTIC TALENT

23% said they have absolutely none
17% express themselves in the kitchen
8% are photographers
8% play a musical instrument

BUSINESS TRAVEL CLUB

45% travel more than a week per year
12% travel more than 10 weeks per year

EVERYBODY KNOWS MY NAME

20% said they'd like to be famous for doing good work or being a good person
18% said for being a great parent or grandparent
16% said for being a musician, singer or performer
2% said for being a politician, lawyer or journalist

GET SMART

34% have a bachelor's degree
9% have a master's degree
1% have more than one doctorate
49% say what they studied in school is completely unrelated to their jobs
97% think continuous learning is important or very important
50% have taken advantage of Avnet training or tuition programs in the past year

CAN YOU HEAR ME NOW?

93% use a cell phone
72% say they are the most annoying and disruptive high-tech device
72% think people should not be allowed to use them on airplanes
60% want their use while driving outlawed
10% do not use a landline at home

IT'S A TECHIE'S WORLD

16% use wireless devices and/or personal digital assistants (PDAs)
94% have home computers, and only 25% are still on dial-up Internet services
64% use Google® as their primary search engine
73% receive 60 or more e-mails per day

BOOKWORMS

57% read 1 to 12 books a year
9% never open one up
3% read 37 to 48
23% find it difficult to limit themselves to a favorite genre
22% prefer mysteries, thrillers and adventure novels
3% choose poetry

PARLEZ-VOUS?

50% speak 2 to 5 languages

PRIDE GOETH BEFORE A LOGO

50% wear Avnet logo apparel outside of work

AHA!

33% get their best ideas while driving
18% would rather sleep on it
7% find inspiration in meetings

RISE AND SHINE

64% say the most productive time of the day is between 7 a.m. and 11 a.m.

ATTENTION!

25% have served in the military

FAMILY

30% have no children
49% have 1 or 2
2% have more than 5

CYCLING, ANYONE?

5% neither own nor lease a car

JUST DO IT

74% solve customer problems on the spot without checking with a manager

STARBUCKS® REJOICE

19% have 5 cups of coffee per day
28% do not drink coffee

Ads Through The Ages

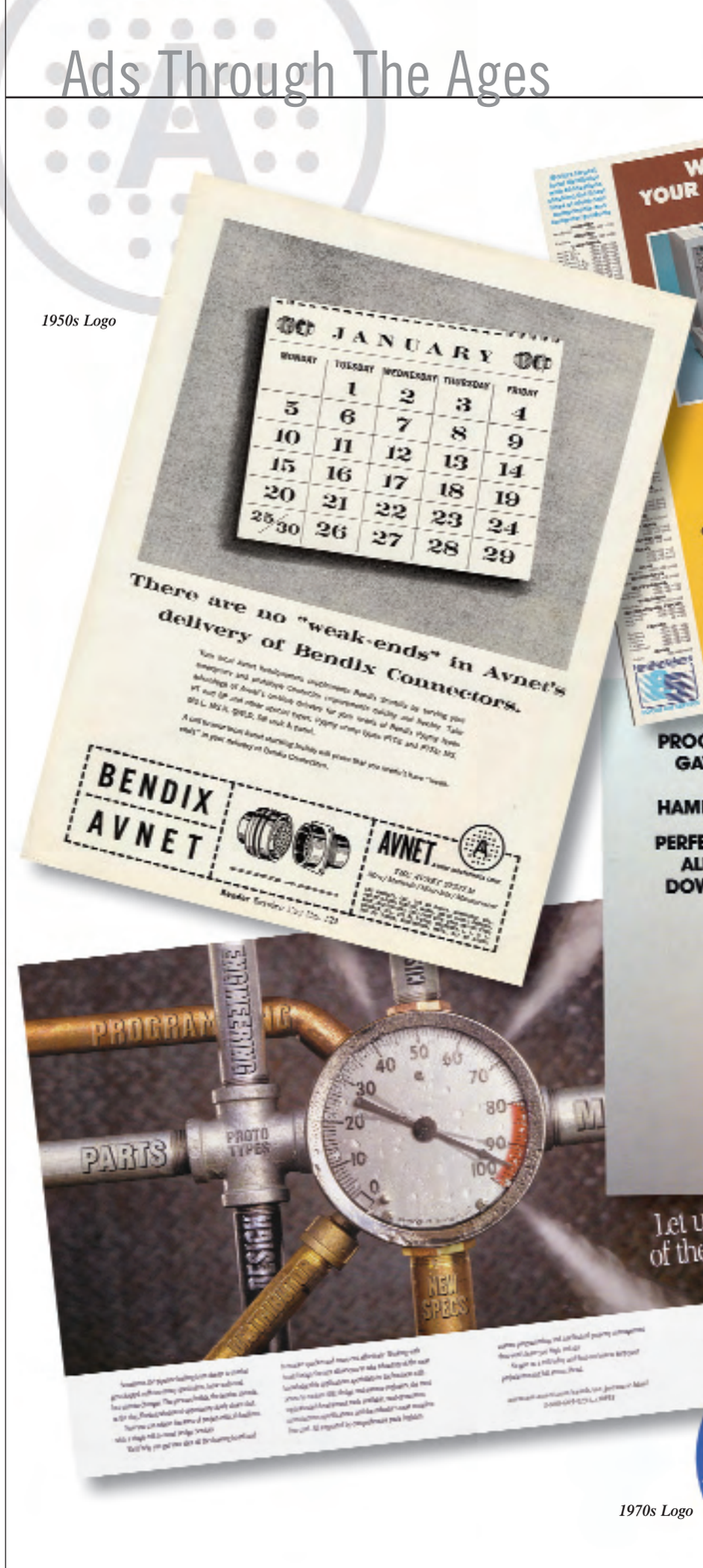
Before public relations came to the fore as a key strategy in driving brand recognition, print advertising was the primary medium used to market Avnet. From 1955 to 1998, the company invested more in advertising than its competitors did and was a leader in co-op marketing with component manufacturers.

Industry publications like *Electronic News, Electronic Buyers' News, EETimes, Purchasing, Electronic Business, Markt & Technik, CRN, VARBusiness, Global Sources, EPN, Electronic Products, EPT* and *Electronics Weekly* provided the perfect showcase for ads touting suppliers' products and Avnet's services.

Logos play an important role in crafting a company's image as well. Avnet's first evoked the military and industrial connectors that comprised the bulk of its sales in the 1950s. After a spate of acquisitions diversified the company well beyond the world of electronic components, a more contemporary version debuted in the 1970s. Avnet's values were emphasized with the creation of the "AV" icon in the 1980s, which went through a few color changes until the contemporary bold red "AV" and "Avnet" logos were introduced in 1998.

It was not until 1999 that most of the company's divisions adopted Avnet as their brand rather than legacy names like Time, Hamilton and Hall-Mark (all of which Avnet had acquired). Today the brand is well-known around the world. Surveys have found that on average, 60 percent of people who work in the electronics industry recognize the "AV" icon and 94 percent know the company as a global distributor.

1950s Logo



1970s Logo

Present Logo


People don't just surf our web site.
http://www.hh.avnet.com
HAMILTON HALLMARK
T ANTWORTEN.
ENDEN
LEICH DAZU.«
AMD
intel
PHILIPS
SILICA
Don't Go Out On A Limb With Your Investment.
milton Avnet Computer For AT&T Power Protection Systems
HAMILTON/AVNET COMPUTER
掌管你的供应链
通过安富利供应链服务
为你提供更完善的供
AVNET ASIA PTE LTD
AVNET
CMG ISO 9001 REGISTERED
Certified support
AVNET
elikatessen!
WBC
WBC

Enhancing Our Image

Trade shows, online seminars, direct mail campaigns, community outreach programs and sponsored events are perfect for promoting the unique services Avnet offers its business partners. So are race cars, record albums and coloring books! The Avnet marketing team and its creative partners have always sought fresh ways to tell the Avnet story.

Dr. Shiravar, a motor control expert from the University of Reading, provides Avnet FAEs with hands-on training during a Silica event.

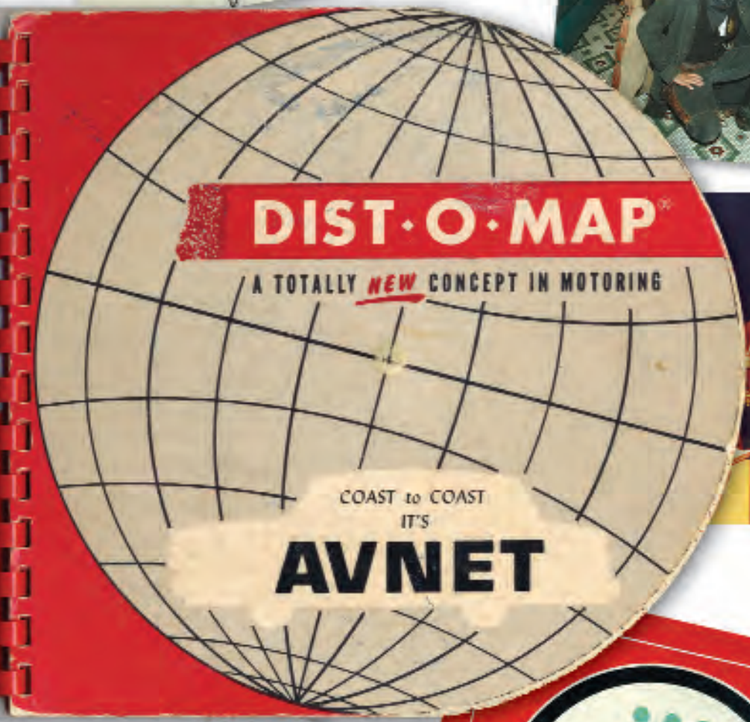
In the late '80s, Avnet sponsored hospitality suites at professional racing events to rev up supplier reps.

Patents are a great marketable asset, and over the years Avnet has had plenty, including this one for an antenna.

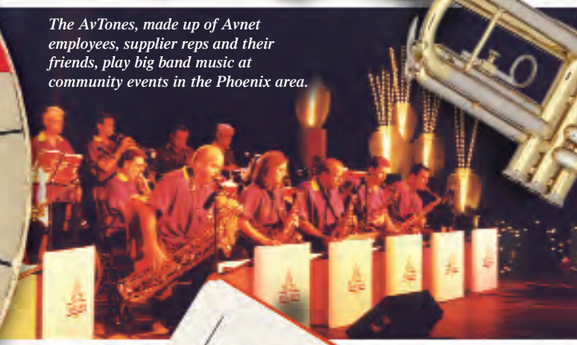
The IBM Partner Conference attracts more than 1,000 people to San Antonio for seminars, networking and a little fun. Avnet also hosts an HP conference every year.

Avnet Time's new Web site debuted in 2002, giving its customers the opportunity to buy online.

Trade shows have long been a staple of Avnet's marketing efforts.



Coast to coast with Avnet in the '60s



The AvTones, made up of Avnet employees, supplier reps and their friends, play big band music at community events in the Phoenix area.

Customers view a system in the showroom of Avnet's Innovation Center in Italy.

Employees from APS in Italy and their IBM business partners attend the European Football Championship in Portugal.

Really.
We're professionals.
Really.

In the '80s, Avnet executives were famous for creating marketing plans over dinner and finalizing them on napkins.

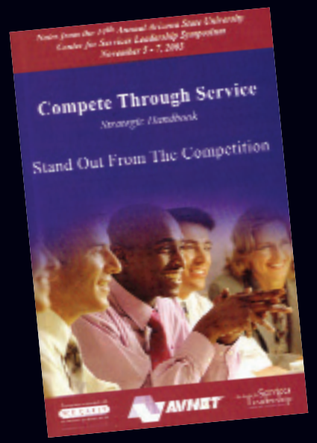
As the owner of Liberty Records in the '60s, albums put a new spin on Avnet marketing.

Experts In Any Language

From New York to Frankfurt, Singapore, Toronto and points in between, Avnet executives are in demand as thought leaders and subject matter experts, captivating audiences with their wit, wisdom and know-how at business forums, trade shows, industry gatherings and analyst meetings.

Their expertise parallels that of Avnet. Topics range from the electronics industry, engineering design, logistics, technology solutions and information technology to strategic planning, finance, branding, value-based management, ethics and compliance, customer service excellence, emergency preparedness and hazardous substance restrictions.

Members of the media turn to Avnet for comment on news and industry trends, which publications like *The New York Times* have solicited since the 1960s. Today, the Avnet name appears in prestigious trade, daily and online venues around the world, including *The Wall Street Journal* and its Asian edition; *Financial Times*; *InformationWeek*; *Business Week*; and *Markt & Technik*. Financial television programs like those on Bloomberg Television regularly feature Avnet guests.



Avnet Writes the Book on Customer Service Excellence

Arizona State University (ASU) hosts an annual Compete Through Service *symposium dedicated to the marketing and management of* services. *This event — for those who seek a competitive edge through the delivery of outstanding services and artful customer care — is among the finest educational opportunities available. Each year Avnet assembles a team of service-oriented executives to attend the symposium, then write and edit a thematic summary of the speaker messages. Learn more at wwww.avnet.com/services.*

Are We Having Fun Yet?

"Never mix business with pleasure."

Whoever said that sure got it wrong. It was probably the Jack guy from "All work and no play makes Jack a dull boy." The people of Avnet have always played as hard as they've worked, from traditional events like golf outings with supplier and customer representatives to, well, let's just say more "creative" fare.

A few old-timers remember the day former Avnet CEO Tony Hamilton, nattily attired as a general, stormed the Culver City, Calif., office in a tank to announce a new military product line. The man knew how to dazzle a crowd! Avnet's people certainly aren't shy when it comes to injecting a little humor into meetings, donning 10-gallon hats, togas and biker gear for themed in-house, supplier and customer events. In addition to cowboy, Medieval and motorcycle affairs, they've done their best — or is it their worst? — to recreate Arabian nights, Sumo wrestling, the 1950s, the Moulin Rouge, Casablanca, and the *Survivor* and *American Idol* television shows.

Avnet's annual Supplier VIP Golf Event, started in 1990 by Hall-Mark, now includes people from more than 300 companies. Hamilton's '70s- and '80s-era Super Bowl parties are the stuff of industry legend, and many a rep and employee lost their shirts to him in a game of cards. Around the world, the people of Avnet entertain their partners and peers with everything from elegant dinners and clever trade-show booths to contests, holiday parties, employee picnics, haunted houses and tricycle races. They compete with and against each other on soccer, hockey, softball, basketball and bowling teams to benefit community causes. They race in marathons, triathlons and even slimy, mucky mud runs. And occasionally, they're just entertained, enjoying dynamic speakers like sports legends Terry Bradshaw and Tommy Lasorda, Apollo 13 astronaut Jim Lovell and business gurus Ken Blanchard, Patrick Lencioni, Ann Rhoades and Michael Treacy.

Let's hope Jack takes their example to heart.

Apollo 13 astronaut Jim Lovell, who received a standing ovation from 700 Avnet managers at the 2000 Global Managers Meeting, signs autographs.

Phoenix, Ariz.

EBV Germany

Tongeren, Belgium

Tenerife

Dallas

China

1. Hundreds of Avnet employees, supplier reps and their friends come together each year in Phoenix to enjoy a day of sun, fun and camaraderie at Avnet's annual softball tournament.

2. Avnet has always rewarded its employees with incredible incentives and recognition events for their sales and support efforts. Super Bowl was a favorite during the '70s and '80s.

3. Excalibur and President's Club fly winners and their guests to Hawaii for a little rest and relaxation.

4. Understanding the importance of a unified effort, Avnet's teambuilding events are a staple around the world.

5. Employees from the Grapevine, Texas, facility show their Halloween spirit by dressing up as the Blue Man Group.

Citizen Avnet

Avnet receives hundreds of requests for charitable contributions every year, and every year the company and its employees step up to the plate, giving generously of their time, money and expertise. The company focuses its corporate giving on children's education and their physical well being and employee volunteerism — causes employees are passionate about, like animal rescue and disease cures.

On the education front, Avnet co-sponsors the Honeywell Science and Technology Fair and Microchip's FIRST Robotics Competition to motivate young people to pursue science and technology. With a $1 million endowment, Avnet also sponsors two professorships in supply chain management at Arizona State University. In Germany, employees test hardware for used computer systems donated to Kyrgyz Republic schools. Cash contributions, back-to-school drives and skill-building events support the homeless children attending Arizona's Thomas J. Pappas Schools.

In the U.K., employees goof off for a good cause, raising money to help the poor and disadvantaged at home and in Africa through Comic Relief's Red Nose Day. In Phoenix, hundreds gather to paint, landscape, organize books and do construction projects for the annual Make A Difference Serve-A-Thon. On jeans days, employees wear denims to work for a $2 contribution, and the company often matches the amount raised. There are blood, toy, clothing, food and goodie box drives. Ice cream socials. Silent auctions. Cell phone donations to help victims of domestic violence reach help quickly. Walking, running, biking and skating to raise money. Avnet employees also help each other cope with personal emergencies as well as devastating events like the Sept. 11, 2001 terrorist attack on the World Trade Center and the December 2004 Asia tsunami.

Donated services such as video production promote community organizations, too. The list is endless and inspiring. From big events to small gestures, Avnet's people around the world are the heart and soul of the company's community involvement.

Tony Hamilton shakes hands with Ed McMahon after presenting a check at Jerry Lewis' Muscular Dystrophy Association Telethon. Money was raised through product sales.

Employees from Avnet's Peabody, Mass., facility make improvements to the historic Manchester House during National Rebuilding Day.

After a tsunami struck southeast Asia in December 2004, Avnet employees undertook their first globally coordinated charity effort, donating $186,000 to the Red Cross through individual pledges, silent auctions, bonus awards, jeans days, bake sales and more.

Avnet Time employees participated in an indoor triathlon in Braunschweig, Germany, to help raise money for Herzkind e.V, which supports children with heart disease and their families.

Kaia Reichenbacher of Avnet Enterprise Solutions and her crew, Team Bike-n-Rocker, compete in a two-day, 160-mile bicycle race to raise money for multiple sclerosis.

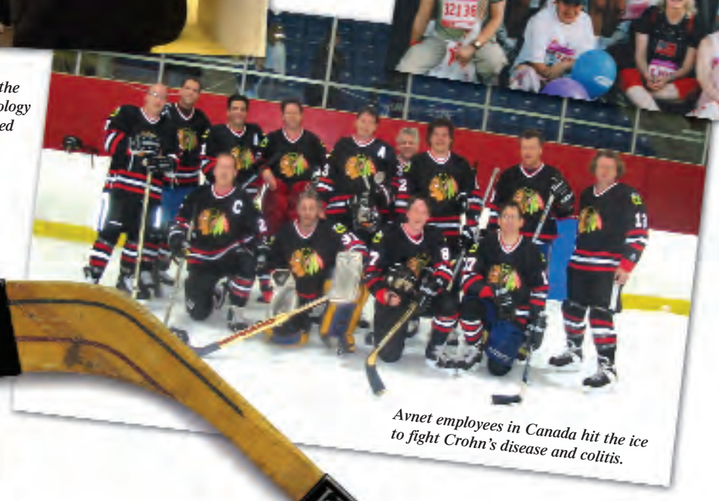
Avnet's Corporate Broadcast Center offered military families the opportunity to tape messages to loved ones stationed overseas and make them available on the Internet.

Avnet donated $10,000 to Associated Early Care and Education, a nonprofit organization that educates more than 900 children from low-income families in Boston.

Avnet makes every effort to support children's education. In Germany, EBV sponsored a computer room for a local elementary school.

Judges interview a Maricopa County, Ariz., student during the Honeywell Science and Technology Fair, which Avnet has sponsored for three years for students in grades 5 through 8.

Avnet's Revlon Run/Walk for Women team, For Our Girls, raises money in Los Angeles to fight women's cancers.



Avnet employees in Canada hit the ice to fight Crohn's disease and colitis.

These U.K. Avnet employees dressed up as Native Americans to support the British Broadcasting Corp.'s annual Children in Need charity.

Each year, employees in Arizona volunteer their time during the Make a Difference Day Serve-A-Thon.

The Avnet Cares Council participates in the Gingerbread Toy Drive during the holidays.

Avnet executives "volunteer" for their turn in the dunk tank to raise money for local charities.

EBV sponsored a member of Switzerland's canoe team in his quest for Olympic glory. Avnet also sponsored the U.S. team at the 1984 Summer Olympics in Los Angeles through product sales and supplier funding.

For three years, Avnet has sponsored Microchip's FIRST Robotics Competition, which teams students with professionals to solve engineering design problems.

Employees take advantage of the explosive popularity of the Texas Hold 'Em poker game to raise money for Free Arts of Arizona and Tempe Pappas Elementary School.

Avnet Technology Solutions employees in the Phoenix area have supported the Las Fuentes Health Clinic in Guadalupe, Ariz., for eight years.

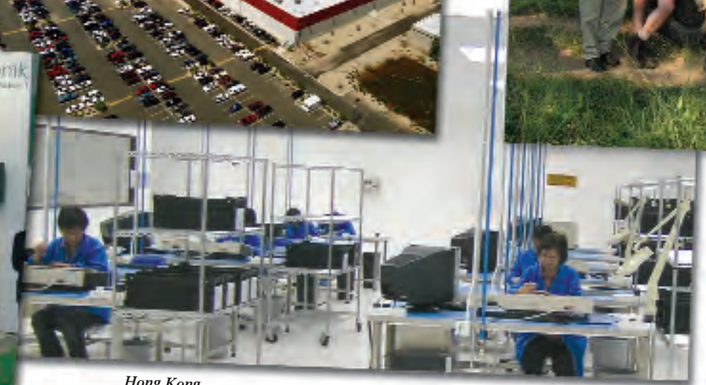
Avnet Around the World

From more than 275 locations, Avnet serves suppliers and customers around the world. Employees not only work hard, they and their families participate in global activities like the holiday card contest and photography contest (see some winning entries below). Avnet then uses the winning entries for its official holiday card boxed set and fiscal calendar.

Nordic region employees hosted Tech Trend Symposiums in Norway, Finland, Denmark and Sweden.

Logistics & Solutions Center, Avnet's largest facility, Chandler, Ariz.

EBV Russia participates in ExpoElectronica, the leading exhibition in Eastern Europe. Avnet has successfully established a presence in 10 Eastern European countries, where it is the leading value-added distributor of components and technology solutions.



Hong Kong

In South Africa, Avnet Kopp invites supplier reps on photographic safaris to help nurture relationships.

Singapore

Connector assembly, Grapevine, Texas

Korea grand opening 1999

China's Ministry of Information Industry hosted Avnet executives and board of directors in 2004.

Hello from Down Under

Avnet Electronics Marketing annual sales meeting in India

Avnet Technology Solutions Europe networking event

AVNET'S BOUNDLESS OPPORTUNITY

From Charles Avnet's first sale on Radio Row in the 1920s to today's multimillion-dollar relationships with leading-edge companies, Avnet has been at the center of the technology industry, delivering value, creating solutions and building channels to market for our trading partners.

Certainly, a lot has changed in the past 80 years. The relative simplicity of the vacuum tube and radio has given way to complex technologies that are smaller, more powerful and more ubiquitous than the Avnets could have imagined. Avnet has grown from a local jobber in New York City into a global company of approximately 11,000 employees distributing leading technology products and providing services in 69 countries, with a potential market in excess of $700 billion.

Much, however, is the same. Whether powering radios, engines or computers, technology drives the global economy. With the acquisition of Memec, Avnet is, once again, the No.1 technology distributor in the world. We remain committed to excellence in customer service, driven not only by an obsessive attention to our partners' needs, but by an information technology capability that allows us to manage their, and our, business efficiently and profitably. And, we remain a culture of performance, values and entrepreneurial spirit, one in which our people are empowered to make decisions on the front lines to best serve their customers, markets and of course, Avnet. With scale and scope advantages, a bias for return on capital and economic profit (vs. simply accounting profit), and a focus on profitable growth, operational excellence and people development, Avnet's opportunities are limitless.

It has been an honor to serve the company the Avnets and thousands of other passionate, talented and dedicated people have created. The values upon which our legacy rests are as relevant today as they were then. Integrity. Customer service. Accountability. Teamwork. Innovation. A sincere thank-you to all the employees who have come before, all who will come after, and all who serve with me today as temporary custodians of this amazing enterprise, and to the partners who have trusted us with their business through the years. May those celebrating the 100th anniversary of our incorporation in 2055 feel the same sense of pride and optimism for the future of Avnet that we do today.

ROY VALLEE
CHAIRMAN & CEO

Avnet will deliver the highest value to our customers, suppliers, employees and shareholders as the premier technology marketing, distribution and services company, globally.

VISION STATEMENT

Acquisitions

Name	Acquired	Field	Country
British Industries Corp.	1960*	Hi-fidelity products, casting (Shaw process)	U.S.
Freeman Products	1962*	Trophies and trophy parts; lighting fixtures	U.S.
Hamilton Electro Sales	1962	Electronic components	U.S.
Liberty Records	1962*	Record albums	U.S.
Fairmount Motor Products	1963*	Automotive and industrial	U.S.
Colonial Engineering	1964*	Metal fabrication and steel cabinets	U.S.
Pitt Products; Pitt New Jersey	1964*	Automotive	U.S.
Valley Forge Automotive	1964*	Automotive	U.S.
International Products & Manufacturing	1965*	Automotive	U.S.
Irving W. Rice	1965*	Giftware	U.S.
Guild Musical Instruments	1966*	Musical instruments	U.S.
General Carbon	1967*	Carbon motor brushes	U.S.
Goya Music	1967*	Musical instruments	U.S.
Channel Master	1967*	Antennas, television tubes, CBs, consumer electronics, satellite dishes	U.S.
Southeastern Motor Products	1967	Automotive	U.S.
Pace Electronic Supplies	1967	Electronic components	U.S.
Brownell Electro	1968*	Electric motors, instrument controls and test equipment	U.S.
Carol Wire & Cable	1968*	Wire and cable products	U.S.
Electro-Air	1968	Electronic components	U.S.
Time Electronic Sales	1968	Electronic components	U.S.
American Precision	1968*	Automotive	U.S.
Diversified Numeric Applications	1968*	Computer products	U.S.
Lincoln Controls	1969*	Hydraulic and pneumatic components	U.S.
Monarch Wire	1969*	Wire and cable products	U.S.
Sterling Automotive Manufacturing	1969*	Automotive	U.S.
Cruits Replacement Parts	1969*	Automotive	U.S.
CAS Manufacturing	1969*	Television antenna systems	U.S.
Ferry Manufacturing	1969*	Wire and cable products	U.S.
ABC Connectors	1969*	Electronic components	U.S.
C. Meisel Music	1969*	Musical instruments	U.S.
Greenfield	1969*	Automotive	U.S.
Premier Vacuum Process	1969*	Vacuum plating	U.S.
Fisher Switches	1969	Electronic components	U.S.
Taylor Electronics	1970*	Electronic components	U.S.
Athens TV Cable	1970*	Cable television	U.S.
Mountain Electronics	1970*	Antennas, television tubes	U.S.
Southeastern Radio Parts of Georgia	1970	Electronic components	U.S.
Kamin Die Casting	1976*	Zinc and aluminum die casting	U.S.
Ward Electronic Supply	1976*	Electric motors and repair parts	U.S.
Loonam Computer Associates	1981	Computer products	U.S.
Computer SuperStores	1982*	Retail stores	U.S.
Sertech	1982*	Electronic components	U.S.
Intercircuits	1982	Electronic components	U.S.
Datatron	1983	Computer products	U.S.

Name	Acquired	Field	Country
Harper	1985	Electronic components	U.S.
CD Industries	1986*	CD player subassemblies	U.S.
The Access Group	1991	Electronic components	U.K.
FHTec Components	1992	Electronic components	France
Nortec Group	1992	Electronic components	Scandinavia
Electronic 2000	1993	Electronic components	Germany
Hall-Mark Electronics	1993	Electronic components, computer products	U.S.
Adelsey	1993	Electronic components	Italy
DeMico	1994	Electronic components	Italy
Penstock	1994	Electronic components	U.S.
Avnet Cable Technologies (LaBarge)	1994*	Cable assembly	U.S.
Lyco	1995	Electronic components	Ireland
WKK Semiconductor	1995	Electronic components	Hong Kong
BFI-IBEXSA International	1995	Electronic components	France
CK Electronics	1995	Electronic components	U.S.
Sertek	1995	Electronic components	U.S.
VSI Electronics	1995	Electronic components	Australia/New Zealand
Setron Schiffer-Elektronik	1995*	Electronic components (catalog)	Germany
Mercuries & Associates	1995	Electronic components	Taiwan
Kopp Electronics	1996	Electronic components	South Africa
ECR Sales Management	1997	Computer products	U.S.
EXCEL-MAX Communications	1997	Electronic components	Singapore
CiNERGi Technology and Device	1998	Electronic components	Singapore
Bytech Systems	1998	Computer products	U.K.
Optilas International	1998	Electronic components	EMEA
Max Electronics	1998	Electronic components	India
Gallium Electronics	1998	Electronic components	Israel
JBA CSD	1999	Computer products	U.S.
Bridge International	1999	Electronic components	Brazil
Integrand Solutions	1999	Computer products	Australia
SEI Macro	1999	Electronic components	U.K.
Marshall Industries	1999	Electronic components	U.S.
PCD Italia and Matica	1999	Computer products	Italy
Cosco Electronics/Jung Kwang	2000	Electronic components	South Korea
Eurotronics (SEI)	2000	Electronic components	EMEA
SEI Nordstar	2000	Electronic components	Italy
Savoir Technology Group	2000	Computer products	U.S.
VEBA (EBV Group, RKE Systems)	2000	Electronic components, computer products	EMEA
RDT Technologies	2001	Electronic components	Israel
Sunrise Technology	2001	Electronic components	China
Kent Electronics	2001	Electronic components, computer products	U.S.
Gamma Optronik	2002	Electronic components	Sweden
DNS Slovakia	2004	Computer products	Slovakia
Memec	2005	Electronic components	Global

**Divested*

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FIFTY YEARS OF MAKING HISTORY