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.
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 recouning; “Good, better, best, never let the better rest until the better’s best.”

This drive for perfection and passion for his business manifested itself in everything my father did and, therefore, in the very soul of the company he helped create and guide for more than a quarter of a century. It manifested itself early on when the company boasted it could deliver connectors anywhere in the United States in 24 hours and did it. It manifested itself when my father was quoted in Newsday in 1961, saying, “We’re going to be the biggest! We’re going to right to the very top.” It was more than manifested in the companies my father acquired and the talented people running them: Leonard Carduner and Simon Sheib (British Industries Corp.), Max Alperin (Carol Wire & Cable), Tony Hamilton (Hamilton Electro Sales) and a very bright man with a lot of potential my father mentored from his earliest days, Leon Machiz (Time Electronic Sales, Electro-Air). These companies and the men who ran them combined with this family business to create the foundation Mr. Vallee and his highly gifted managers and employees are building upon today.

As 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
“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
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 Gramophone records — the first true radio broadcast.

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 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. By 1927, Galvin Manufacturing Co. introduced the first practical car radio, the Motorola; 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 to wholesale only. 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.

CHARLES AVNET AND THE GOLDEN AGE OF RADIO
1921 — 1940

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 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.
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 simple vacuum tube created by John Fleming. He found a practical use for a discovery Edison accidentally made while trying to make his lights 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 contained space. 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 high-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.

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 signals 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.

The Birth of Radio

1934 – Half of U.S. homes have radios
1938 – There are 50 million radio sets in the U.S., up from 10 million two years prior
1938 – Oreon Welles and his Mercury Theatre players cause widespread panic with the War of the Worlds radio broadcast
1939 – Radio brings World War II coverage home

CHARLES AVNET AND THE GOLDEN AGE OF RADIO 1921 – 1940
“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

The Connector Connection

1941-1959

CHAPTER 2
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 of assembly plants and sales engineering/service locations by 1964, if underwent a metamorphosis from a business devoted to electrical connectors to a holding company with interests ranging from electronic components to record albums.

Today, Avnet stocks more than 1.5 million types of connectors.

“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
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, bulky 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.

The semiconductor products like silicon Zener diodes, silicon rectifiers and tantalum capacitors. Sales reached $64 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.

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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.

Frustrated with the West Coast as a buyer for Lear, Tony Hamilton went off on his own in 1955 to start Hamilton Electro Sales. Soon a franchised stocking distributor of General Electric tantalum 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 Seymour Schweber. The pair eventually went their separate ways and founded competing companies. Schweber started Shockwave 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.

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.

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 Air Force 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.

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 flat layer, and then removing some of it so that the wires needed to unite the components were formed. That improved the manufacturing process tremendously. Kibby 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.

Electronic News journalist Don Hoefller 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. Professor 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.

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, IBM, Raytheon 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 III 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
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 entry 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.

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, Laid by future CEO Leon Machal, 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, Vaxalyn 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!

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 shared him away from the family business, the electronics industry was his destiny, and he paved his considerable enthusiasm into it. He was an expert on electrical connectors, extremely knowledgeable about finishing practice and metallurgy, and was known for bringing children to annual meetings to share his passion about business.

In 1966, the Anti-Defamation League of B’nai B’rith named him a “Man of Achievement.”

Lester’s innate business sense, vision, energy and humanity shaped a company of humble beginnings into a quarter-billion dollar corporation. In 1969, 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 1985 the company was known not only as a leader in electronic components, but as a cornerstone of consumer leisure electronics and, undeniably, the heart and soul of Avnet for many decades. As an innovator, to innovate, to follow through...
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 muscle 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, toy makers, 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 of 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 car’s 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 joined Avnet with the acquisition of his company, Carol Wire & Cable, in 1968. He and his son, Meirin, 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 corporate stability. He served as chairman of the board alongside CEO Simon Shrib 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 Foundation. 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 Emmanuel.

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 1966, 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.

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 Shrib 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.

Max Alperin

President 1969–Chairman 1970–1974

Avnet's largest franchise lines:

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

1961 – Wall Street analysts nickname Avnet “The Darling of the Big Board”; revenue nears $70 million with $0.70 earnings per share.

1962 – Avnet acquires Hamilton Electric Sales; eight years later, Hamilton/Avnet is born and is now the nation’s largest electronic components distributor.

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

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

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

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 captivated 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 Pasiphae, 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 décors and costumes and collected sculptural works and items 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 Hocht and Delvaux; English painters Bell, Bomberg, Fry, Lewis and Grant; Paris innovators Balbous, Derain, Dufy, Matisse and Roualt; 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 refusés” 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.

For more information on The Joan and Lester Avnet Collection at the Museum of Modern Art, see A Treasury of Modern Drawing published by the museum in 1976.

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

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 – Avnet acquires MacAlpine’s Cast Wire & Cable, which remains a leading company division until its sale to ESAB in 1981

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

1968 – Avnet enters the Fortune 500 at No. 467

1969 – Avnet dips toe in the computer industry with Diversified Numeric Applications, which designs and supplies computerized clinical laboratory systems

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

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

1971 – Sheb lands the winnder of a diversified portfolio. Avnet’s five groups span the electronic components, consumer products, wire and cable, automotive, and electrical and engineering markets

“Often, when he was involved in resolving a business deal, Mr. Avnet would lift his eyes up to a drawing by Degas, or Monet, 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

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

View from a Carriage Window, Frontish Kippe


Port Mondrian’s Church Facades (left) and The Firebird, by Leon Bakst
“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
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 tough 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 Electric’s fortunes. When Japanese competition realigned 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 Automobile 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.

The majority of the time, however, Avnet’s new strategy involved consolidating divisions, investing in sales, warehouse or stocking facilities, 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 acquired 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 Group continued its 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 1979, the Electronic Marketing and Wire & Cable Group 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 Electric 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 intricately 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 diversification process into high gear.
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 Electronic & Industrial Group was a hodgepodge of divisions led by Bronnelli, which focused chiefly on electric motors. It also included Mechanic Holmes, 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 L.W. Rice, the bath accessories distributor.

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 many business observers 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.

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—as 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.

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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.

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.

Most 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.

Semiconductor programming and inventory management solutions are just two of the many services Avnet offers.
## 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, Stoughton 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 $350 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-Mack 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 Savor 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.

## TONY HAMILTON

**CEO 1980-1988**

A charismatic businessman, Tony Hamilton turned his homogenous 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 big spenders. Super Bowl weekend parties with the biggest names in sports. Lavish Christian parties. Exquisite gifts. Month-end festivities included poker, backgammon and Hamilton’s own card game, Crazy Otto. He even dressed up as an Avnet light song, and there are still quite a few people at Avnet who can’t help it on request! Suppliers benefited, too, with black tie affairs and musical extravaganzas, a tour 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 future results be shared with the appropriate people. He empowered employees to make decisions and surmounted slippery “trunk checks” to ensure they carried suppliers’ collateral in their vehicles. It was a winning combination. When the technology distribution industry increased market share 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 five recipients in the organization’s 70-plus-year history. The Anthony R. Hamilton Educational Technology Center at Calvert City (Calvin) 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, Wyse Electronics in Electronic Buyers’ News, August 28, 1996

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**“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.
50 YEARS OF MAKING HISTORY

The History of Computers

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

1900 – 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.

1906 – Alan Turing writes the Computation Numbers describing a hypothetical general purpose digital computer that performs logical operations and can read, write and erase symbols.

1914 – Stibitz builds a digital machine at Bell Labs based on relays and light bulbs.

1918 – Zuse and Schreger complete a prototype mechanical binary programmable calculator, the first using the binary system and based on Boolean algebra.

1937 – Atanasoff and Berry build the first digital machine at Iowa State College, which is also the first to bundle software with hardware.

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.

1941 – Turing helps develop the Bombe, a decoder for German “Enigma” ciphers, and the programmable digital computer Colossus to break German telegram ciphers. Its 3,409 vacuum tubes for logic help it translate 5,000 characters per second.

1943 – The Harvard Mark I, the first large-scale automatic digital computer, is built by IBM and created 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.

1946 – Most computers are built with vacuum tubes instead of relays by this time.

1947 – Wilkes writes the First Draft outlining the elements of a stored-program computer.

1949 – Manchester University builds the first electronic computer, to calculate ballistic trajectories and test theories behind the hydrogen bomb; it has to be physically programmed with switches and drums but can do 100,000 calculations per second.

1950 – IBM introduces the first laser printer.

1951 – The Harvard Mark I, the first large-scale automatic digital computer, is built by IBM and created to create ballistics tables for the U.S. Navy; it is 51 feet long and uses 750,000 parts.

1951 – The invention of the integrated circuit (IC) by Jack Kilby of TI accelerates the transistor revolution; ICs incorporate transistors, diodes, and cells and wires on one chip.

1958 – The IBM 360 Series uses solid logic, miniaturized transistors combined with hybrid circuits, that can multiply two 10-digit numbers 400,000 times per second.

1959 – Moore’s Law predicts the number of transistors that can fit on a chip will double every year.

1960 – Digital Equipment Corp.’s DEC PDP-1 is the first commercially successful microcomputer.

1960 – The first known computer virus, “Creeper,” is discovered.

1961 – Turing helps develop the Bombe, a decoder for German “Enigma” ciphers, and the programmable digital computer Colossus to break German telegram ciphers. Its 3,409 vacuum tubes for logic help it translate 5,000 characters per second.

1963 – The IBM 360 Series uses solid logic, miniaturized transistors combined with hybrid circuits, that can multiply two 10-digit numbers 400,000 times per second.

1965 – The first cellular telephone call is made; the first commercial cell phone won’t come on the market until 1979.

1966 – Micro Instrumentation Telemetry Systems’ Altair 8800 is the first commercial PC (personal computer).

1967 – Apple releases the Wozniak/Jobst-designed Apple I and is followed in short order by competitors from Commodore, Tandy/Radio Shack, Sinclair and others.

1968 – The Personal Computer-Plus prototype computer is demonstrated.

1969 – The first known computer virus, “Creeper,” is discovered.

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1971 – The first known computer virus, “Creeper,” is discovered.

1972 – Hewlett-Packard releases the first handheld scientific calculator.

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1975 – Microsoft, founded 10 years prior with the Gates/Allen creation of BASIC for the Altair 8800, launches Windows.

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

1977 – Apple Lisa, the first commercially successful PDA (personal computer), is introduced.

1978 – The IBM 360 Series uses solid logic, miniaturized transistors combined with hybrid circuits, that can multiply two 10-digit numbers 400,000 times per second.

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

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

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

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2004 – The first cellular telephone call is made; the first commercial cell phone won’t come on the market until 1979.
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
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.

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 market leadership. 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 engineers, technical subrogues, 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 L.W. Rice in 1993, followed in short order by Freeman Products, Brownell and Mechanix Choice.

It shed its Channel Master Malaysian manufacturing facility and Canadian operations in 1993 before getting free 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’s retirement in 1998. As vice chairman, president and chief operating officer during much of Machiz’s tenure, Vallee was instrumental in helping his mentor realize his vision of creating a focused, global technology leader.

While phasing out 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 FRETeC Composants and Scandinavia’s Novtec, 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.

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 share 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 IKI 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...
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 design, manufacture, test, store, ship, track, and deliver their products. 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, drawing traffic to an astounding 341,634 visitors per day in 1995.

Avnet Direct, a fully functional Internet-based business-to-business marketplace, went live in late 1995, providing information, part searches and order status. By 1997, the site was driving traffic to an astounding 341,634 visitors per day, with 20,000 unique visitors per day. Avnet Direct, which is now known as Avnet.com, has since expanded to offer a robust collection of tools for customers, including order status, part searches and direct access to the Avnet catalog.

Avnet, Inc.

The $55 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 Mercantes & Associates, a specialist in semiconductor distribution. As proof of the region’s simmering potential, WKK’s and Mercantes’ 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. Macht called the 1993 acquisition of Hall-Mark Electronics, the U.S. third-largest broadband 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 catalog to purchase items from Avnet Industrial, Brownell Electric and other distributors, 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.

Avnet acquired RosettaNet in 1998, a nonprofit technology trade association. 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.

Avnet launched a corporate portal in 1998. The portal, known as Avnet.com, was the “best of the best” in the 2000 Best of the Best Web site in the distribution industry. A 2002 study of 550 corporate sites by Best Practices in Corporate Communications ranked it No. 4.

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Avnet acquired RosettaNet in 1998, a nonprofit technology trade association. 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.

Avnet launched a corporate portal in 1998. The portal, known as Avnet.com, was the “best of the best” in the 2000 Best of the Best Web site in the distribution industry. A 2002 study of 550 corporate sites by Best Practices in Corporate Communications ranked it No. 4.
In the high-tech world, neither research and development nor manufacturing come cheap. As technology has advanced, the complexity and breadth of the support services and customers request of their distribution partners has increased exponentially.

To focus on their core business, companies like Avnet seek external help, with partners to be experts in an array of support services. Kitting, assembly and specialized packages have been joined on the list of manufacturing and logistics services. Electronic design and marketing are de rigueur. So are supply chain services like point-of-sale 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 fulfillment of materials management, logistics information, and the company’s warehouse space around the world, a quarter of which is dedicated to value-added services.

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

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. By supporting engineers, ADS looks for 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 it 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.

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 electronics 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.
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 “0” 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 100 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.

Y2K Chaos That Wasn’t
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 Anett, 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 Wonler 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.

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 had 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 (NEDIA) 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.

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 Harty 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

The U.S./Soviet Union space race accelerates 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, invention of 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 1979. In 1979, 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, Bittounik 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.
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.

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.

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.
“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

Avnet’s Class 100 clean room for flat panel assembly and integration is a first for the distribution industry.
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—that drastically reduced profit.

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 wilted, especially in the saturated telecommunications market. And after a year of rising prices and parts shortages, speculative components purchasing led to a supply chain bottleneck with excess inventory.

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 income had grown 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 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 products before they buy.
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 Cuautla and offices in Monterrey and Mexico City. The company also established a presence in Puerto Rico and Brazil.

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, ChinaE2Net, and purchasing components distributor Sunrise Technology the following year. Eagering 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.

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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 chain. The company’s just-in-time; point-of-use inventory programs provide pinpoint accuracy for partners of all sizes. From implant stents to bonded inventory reserved for specific components, 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.

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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!

Companies turn to Avnet for two simple reasons: We save them money and/or we help them grow faster, thereby increasing their profit.
Outsourcing of the technology hardware and electronics manufacturing services (EMS) value, is at the heart of all Avnet corporate governance initiatives. It starts at the top and permeates the organization.

INTEGRITY SERVES AVNET WELL

Integrity serves Avnet well. Exem. WestCell, Global Crossing. During 2001 and 2002, one company after another became embroiled in accounting investigations. Avnet, however, enjoyed a stellar reputation for governance and maintaining 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 end step for any 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 (ISS) gives Avnet a top rating, which means the company is highly exposed to activist campaigns.

Avnet vice president and regional director at the time. He soon found himself on the fast track to the ultimate corner office, replacing Machiz as president and chief operating officer for six years before taking the reigns himself in 1998.

Well, that someone turned out to be Roy Vallee, who was in fact a Hamilton/University’s College of Business-Dean’s Council of 100, which selects a business leader each year “whose contribution is deemed significant to the 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 management 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.

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.”

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.”

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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 deregulated 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 budding semiconductor industry. The trend caught fire when manufacturers like IBM, Summa/SCI and Hewlett-Packard shed facilities to improve financial performance. As electronic products became smaller, cheaper and lighter, new manufacturing technologies 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.
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 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. Traders 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.

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.

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 $115 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! Avnet’s organic growth rate exploded 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.

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.

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.

Going Global
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.

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 homogeneous 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 GreenLead-Free Initiative. Avnet has adopted its sales and warehouse information systems to capture the RoHS status of components. It 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 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 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 home, including more than 1,000 people stranded at an Avnet IBM Partner Conference in San Antonio by the U.S. government on air travel. Kudos to FedEx and UPS, which rallied to the challenges presented by their customers around 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.

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-JBXSA joined the company in 1995. Altogether, Avnet does business in 69 countries. Turn to page 122 for more photos from around the world.

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 $100,000. 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 home, including more than 1,000 people stranded at an Avnet IBM Partner Conference in San Antonio by the U.S. government on air travel. Kudos to FedEx and UPS, which rallied to the challenges presented by their customers around 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.
“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

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.
The Face of Avnet

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

IT’S A TECHIE’S WORLD
15% 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

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

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?
22% prefer mysteries, thrillers and adventure novels
2% express themselves in the kitchen

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

PRIDE GOETH BEFORE A LOGO
50% wear Avnet logo apparel outside of work

PARLEZ-VOUS?
50% speak 2 to 5 languages

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

STARBUCKS’, REJOICE
19% have 5 cups of coffee per day
28% do not drink coffee

50 YEARS OF MAKING HISTORY

THE BRAND WALKS ON TWO FEET
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, Mont & Technology, CRN, World Business, 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 logo was 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.
Do not use this page
this is an ad page from the “15908_ADs” file
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.

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

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

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

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

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

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

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

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.

Coast to coast with Avnet in the '80s.

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

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

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

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

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

50 Years of Making History

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 www.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.
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 partner 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 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.

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

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

Avnet employees in Phoenix, Ariz., educate students at the Honeywell Science and Technology Fair, which Avnet has sponsored for three years for students in grades 5 through 8.

Avnet employees in France participate in an indoor triathlon to help raise money for a local elementary school.

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.

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.

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Avnet employees in Canada hit the ice to fight Crohn’s disease and colitis.
Avnet executives "volunteer" for their turn in the dunk tank to raise money for local charities.

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.

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

Avnet Technology Solutions employees in the Phoenix area have supported the U.S. Olympic Committee through product sales and supplier funding.

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.

Avnet Technology Solutions employees in the Phoenix area have supported the U.S. Olympic Committee.

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

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

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

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.


Avnet has successfully established a presence in 10 Eastern European countries, where it is the leading value-added distributor of components and technology solutions.
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.
## Acquisitions

<table>
<thead>
<tr>
<th>Name</th>
<th>Acquired</th>
<th>Field</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Industries Corp.</td>
<td>1960*</td>
<td>Hi-fidelity products, casting (Shaw process)</td>
<td>U.S.</td>
</tr>
<tr>
<td>Freeman Products</td>
<td>1962*</td>
<td>Trophies and trophy parts, lighting fixtures</td>
<td>U.S.</td>
</tr>
<tr>
<td>Hamilton Electric Sales</td>
<td>1962</td>
<td>Electronic components</td>
<td>U.S.</td>
</tr>
<tr>
<td>Liberty Records</td>
<td>1962*</td>
<td>Record albums</td>
<td>U.S.</td>
</tr>
<tr>
<td>Fairmount Motor Products</td>
<td>1963*</td>
<td>Automotive and industrial</td>
<td>U.S.</td>
</tr>
<tr>
<td>Colonial Engineering</td>
<td>1964*</td>
<td>Metal fabrication and steel cabinets</td>
<td>U.S.</td>
</tr>
<tr>
<td>Pitt Products, Pitt New Jersey</td>
<td>1964*</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>Valley Forge Automotive</td>
<td>1964*</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>International Products &amp; Manufacturing</td>
<td>1965*</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>Irving W. Rice</td>
<td>1965*</td>
<td>Giftware</td>
<td>U.S.</td>
</tr>
<tr>
<td>Guild Musical Instruments</td>
<td>1966*</td>
<td>Musical instruments</td>
<td>U.S.</td>
</tr>
<tr>
<td>General Carbon</td>
<td>1967*</td>
<td>Carbon motor brushes</td>
<td>U.S.</td>
</tr>
<tr>
<td>Grafix Music</td>
<td>1967*</td>
<td>Musical instruments</td>
<td>U.S.</td>
</tr>
<tr>
<td>Channel Master</td>
<td>1967*</td>
<td>Antennas, television tubes, CBs, consumer electronics, satellite dishes</td>
<td>U.S.</td>
</tr>
<tr>
<td>Southeastern Motor Products</td>
<td>1967</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>Pace Electronic Supplies</td>
<td>1967</td>
<td>Electronic components</td>
<td>U.S.</td>
</tr>
<tr>
<td>Brownell Electroc</td>
<td>1968*</td>
<td>Electric motors, instrument controls and test equipment</td>
<td>U.S.</td>
</tr>
<tr>
<td>Carol Wire &amp; Cable</td>
<td>1968*</td>
<td>Wire and cable products</td>
<td>U.S.</td>
</tr>
<tr>
<td>Electro-Air</td>
<td>1968</td>
<td>Electronic components</td>
<td>U.S.</td>
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<tr>
<td>Time Electronics Sales</td>
<td>1968</td>
<td>Electronic components</td>
<td>U.S.</td>
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<tr>
<td>American Precision</td>
<td>1968*</td>
<td>Automotive</td>
<td>U.S.</td>
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<tr>
<td>Diversified Numeric Applications</td>
<td>1968*</td>
<td>Computer products</td>
<td>U.S.</td>
</tr>
<tr>
<td>Lincoln Controls</td>
<td>1969*</td>
<td>Hydraulic and pneumatic components</td>
<td>U.S.</td>
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<tr>
<td>Monarch Wire</td>
<td>1969*</td>
<td>Wire and cable products</td>
<td>U.S.</td>
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<tr>
<td>Sterling Automotive Manufacturing</td>
<td>1969*</td>
<td>Automotive</td>
<td>U.S.</td>
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<tr>
<td>Crafts Replacement Parts</td>
<td>1969*</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>CAD Manufacturing</td>
<td>1969*</td>
<td>Television antenna systems</td>
<td>U.S.</td>
</tr>
<tr>
<td>Ferris Manufacturing</td>
<td>1969*</td>
<td>Wire and cable products</td>
<td>U.S.</td>
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<tr>
<td>ABC Connectors</td>
<td>1969*</td>
<td>Electronic components</td>
<td>U.S.</td>
</tr>
<tr>
<td>C. Meisel Music</td>
<td>1969*</td>
<td>Musical instruments</td>
<td>U.S.</td>
</tr>
<tr>
<td>Greenfield</td>
<td>1969*</td>
<td>Automotive</td>
<td>U.S.</td>
</tr>
<tr>
<td>Premier Vacuum Process</td>
<td>1969*</td>
<td>Vacuum plating</td>
<td>U.S.</td>
</tr>
<tr>
<td>Fisher Switches</td>
<td>1969</td>
<td>Electronic components</td>
<td>U.S.</td>
</tr>
<tr>
<td>Taylor Electronics</td>
<td>1970*</td>
<td>Electronic components</td>
<td>U.S.</td>
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<tr>
<td>Athens TV Cable</td>
<td>1970*</td>
<td>Cable television</td>
<td>U.S.</td>
</tr>
<tr>
<td>Mountain Electronics</td>
<td>1970*</td>
<td>Antennas, television tubes</td>
<td>U.S.</td>
</tr>
<tr>
<td>Southeastern Rake Parts of Georgia</td>
<td>1970</td>
<td>Electronic components</td>
<td>U.S.</td>
</tr>
<tr>
<td>Kevin Die Casting</td>
<td>1974*</td>
<td>Zinc and aluminum die casting</td>
<td>U.S.</td>
</tr>
<tr>
<td>Ward Electronics Supply</td>
<td>1976*</td>
<td>Electric motors and repair parts</td>
<td>U.S.</td>
</tr>
<tr>
<td>Lawson Computer Associates</td>
<td>1981</td>
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*Divested