

John Chambers

Chief Executive Officer
Cisco Systems

Oral History Transcript

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Recipient of the 1999 PriceWaterhouseCoopers Award for
Lifetime Achievement

John Chambers Interview

Dan Morrow: Good morning. This is Monday, April 19, 1999. We're in the Napa Valley Conference Room, the boardroom of Cisco Systems, Cisco Headquarters, West Tasman Drive in San Jose, California, and we're interviewing today John Chambers, the President and CEO of Cisco. Mr. Chambers will on June 7, 1999 in Washington receive the PricewaterhouseCoopers Information Technology Leadership Award for Lifetime Achievement, the twelfth recipient of this award, joining Jay Forester, Andy [Grove], David Evans and Ivan Sutherland, [indistinguishable] and David Packard, Douglas [Inglebart], Bill Gates, Tom Watson, Jr., Robert [Noyes] and Ross Perot.

John Chambers: It sounds good, Dan. One request--

Dan: Sure.

John: If you'd call me John.

Dan: John.

John: It's much more relaxing and informal, it also makes me feel old. [laughter] And I'm sure by the time some people see this it will be old, but let's at this point in time call each other by the first names if it's all right.

Dan: Well, Big John, call me Dan. Absolutely.

John: All right.

Dan: Let's begin this with you telling us when and where you were born.

John: My name is John Chambers. My birth date is August 23, 1949, and I was born in Charleston, West Virginia.

Q: Tell me about your parents.

A: I was lucky. I have two great parents. Both of them are doctors. They taught me early on in life that education was the equalizer in your life, and there's nothing within reason you couldn't achieve with some hard work and a little bit of good luck.

Q: And what were your parents' names?

A: Jack and June Chambers.

Q: And they were both doctors?

A: Both doctors, both from West Virginia, both very active, both in the educational system and in the medical profession. Dad delivered probably 6000 babies during his career.

Q: Tell me about the Charleston area. What was it like when you were growing up there?

A: Well, Charleston at the time that I grew up and West Virginia in general was in about the middle of the state's in per capita income, economic health, etc. It was literally the chemical center of the world at that point, coal center of the world, had a lot going for it and good growth. It was a lesson learned the hard way, what happens when business and government and education do not work together toward goals, because the state has had its challenges over the last decade or two.

Q: It's a small town, fifty, sixty thousand people?

A: Yes, it was about a hundred thousand as I was growing up and now it's about fifty to sixty thousand. It's a great place to be from, a great place to raise kids. I'm very proud to be a West Virginian. I go back regularly, both for the sporting events and the mountaineers that we're proud about, and also to be a part of my friends in West Virginia.

Q: What was your neighborhood like when you were a kid. Were there lots of--this was right after the war, sort of the classic baby boom generation--were there lots of kids running around or were you-- ?

A: Kids were everywhere. It was in a typical block with just one house after the other. The grade school was less than a block away. It was really a very fortunate time to be raising kids in that part of the world.

Q: Do have brothers, sisters?

A: I have two sisters, younger sisters Cindy and Patty, both of them two years and three and a half years younger than me respectively, who married really neat husbands. Interestingly enough, all three of us lead our businesses. One brother is the head of a pharmaceutical company in San Diego and the other is the head of a hospital in Greensboro, North Carolina.

Q: Now you were talking, we were talking earlier before this interview about long histories of families in West Virginia. Did you know your grandparents when you were a young man?

A: I was very fortunate because I came along when my parents were still in med school and so my grandparents, the first six months, kind of traded me back and forth in a little town called Ravenswood, West Virginia, and our family's always been extremely tight. At first all the family, both myself and my wife's family, grew up in West Virginia and so you had the in-laws and multiple generations. I knew my great-grandmother as well, and a lot of the history of the state was passed on on both sides of the families.

Q: Now, it was also rather unusual for a woman in the middle part of the twentieth century to become a physician, and you have physicians on both sides of your family. Where does this come from?

A: Well, Mom's family had been very successful in business and in construction and her mother, my grandmother, had the same approach. She went to college as well, and--you're getting back quite a few years--and I think early on the kids, regardless of sex, realized that education is the equalizer in life and that you can accomplish within reason what you want regardless of your background and regardless which sex you're from. Now I got no sympathy when I got hurt as a young person. Dad would look at it and say, "Here's how we're going to fix it.", and I can still remember running in one day when I'd got-- There was a trapeze swinging out over a river in West Virginia and you'd swing out over it and flip into the water and it was a lot of fun. I wasn't watching and it came back poked me. It had a big steel pipe on it and really the blood was coming out rather rapidly and I expected my Mom to come apart when I walked into the house, and all she did was go, "Got it!" [laughter]

Q: [inaudible] one of the advantages of [inaudible].

A: I tease a lot. My dad had the vision to understand how things were going to happen. He could see the changes that were going to take place in West Virginia two or three decades out. He did the same thing in combining hospitals from West Virginia and the future of medicine in our state, and very, very proud of that both in medicine and business. My mom had the people skills and the gentle side and I was kind of a blend of the two and very proud of them both, and we've got a very tight relationship even to this day. My dad is actually my best friend, and he and my wife kind of both watch to make sure that when I get down they pick me up, and on very rare occasions,

when I get a little bit too high up in the air, they bring me down, not too subtly.

Q: I understand your father is actively online now?

A: Yes, Dad did not use computers until two years ago. He was like most doctors--you couldn't read their writing at all but all of a sudden he realized he could trade stocks over the Internet and read business periodicals. Then he could look at the weather and see what was going on as he traveled. Then he realized he could track Cisco and my competitors, and he actually, now when we talk a couple of times a week, not only do we talk about family and what's going on worldwide, but we also talk about how I could run my company better. So that change took place in two years. So when people talk about the Internet generation it doesn't know age, sex, background, family, etc. You've got to get an application that excites you and then once you get it, it's almost unlimited in terms of its potential.

Q: It is an exciting time of your life. When you were a really young person was there any-- I often like to ask what your first experience with technology was as a kid. Was there any hint that you were ever going to be in this business when you were growing up?

A: Maybe more from the medical side than the actual computer side. With both parents being doctors, and I was the first one along when they were still going through their internships, etc., I spent a huge amount of time actually in the hospitals, and I learned early on what you could do, and run around, and what some of the options were. So I literally developed a tremendous amount of confidence in the medical field. I'm a believer that as long as they catch something early enough there's almost nothing they can't fix, and that is both a confidence in the medical professionals themselves as well as technology.

Q: So you would have started, like, grammar school about 1954, 1955?

A: 1955, Mm-hmm.

Q: What was it like going to grammar school in Charleston, West Virginia, mid '50s?

A: Well, it was a very conservative environment, still a relatively small number of students per teacher, an area where there was already a pretty fair amount of emphasis on education.

Q: Did you learn to read in school or did you know before?

A: I knew before I went to school how to read, but to your indirect part of your question, I did have a learning disability, and this is before people understood what learning disabilities were.

My parents began to understand the issue. There weren't special education teachers at that point in time and because the family was very active in education they found a wonderful lady by the name of Mrs. Anderson who had been involved in education and working with "early phase learning disabilities" before it was understood, and over a period of a couple of years, by working with her and with my family helping me, I understood how to compensate for the weaknesses and overcome most of them. It really taught me early on in life that there's almost nothing you can't do if your willing to put the time, and your friends and family are willing to help you. So I think that perhaps contributed in a major way to--although I couldn't describe it at that time--an inner confidence, because at the time it was actually an insecurity issue, when you can't read effectively and you're having trouble with reading and the kids around you are kind of-- They're looking at you going, "Mm-hmm, is this person even going to make it through high school, much less to college?" It helped build a confidence that I was very fortunate in.

Q: This is [Lorena] Anderson. She must have been an extraordinary woman.

A: She is an extraordinary woman.

Q: Do you still stay in touch?

A: Yes, as a matter of fact we exchanged some information as recently as six to twelve months ago. She's always taken an interest and she was very patient because at times I'm a slow learner.

Q: The mid '50s were hard times in that regard anyhow-- judgmental as the-- I'm from the same generation, maybe a little older. What about other teachers in grammar school and maybe high school? Were there teachers that really made a difference?

A: Well, my math grades were always almost off the charts and my English grades were always challenging and so I enjoyed the math more. I think as you go through there are teachers that influence you. Probably in college, in school, the conversation with the business professors about what should I do next, and the combination of law and business became very key. But really the key influencer over the business part of my life was my dad. The confidence and the people skills that I alluded to earlier came from Mom, and then I was very fortunate to meet a local young lady that came from the opposite high school, across from the other side of town, arrived when I met her right as I

graduated from high school and we dated off and on for seven years.

And we've been 25 years of wonderful marriage, two great kids, and her name is Elaine. She's the joy of my life and our kids are what I'm most proud of. Out of everything I've done in life that's my key accomplishment.

Q: You have a daughter and a son?

A: Mm-hmm.

Q: And your daughter Lindsey is still in school?

A: Twenty-one years old, a junior at [Wake Forest]. My son is nineteen and a freshman at University of Pacific.

Q: Oh fantastic. Who were your heroes when you were in high school, a really young man, I mean either fictional or for real. We know your dad has always played a big role but was there-- You know, people talk about having their sort of moral tenets set by listening to stories of the Lone Ranger on the radio or sports figures. Were there people you model yourself after?

A: No, actually my dad was my hero in many ways, and my mom as well because, as you alluded to earlier, coming out of the background and going through medicine at that time was unique, and she was a tremendous player in sports before that was often accepted, whether it was ping pong or life-guarding or whatever and So we've always been a very tight family. I think early on I was taught, and I very much believe in this myself, is that we're all equals, and so there wasn't anybody that I particularly looked up to almost in awe, if you will, or anybody that I looked down upon. I try to treat people like I'd like to be treated myself and that was kind of what was ingrained. So the answer might surprise you, but there was no real hero.

Q: So you were about 14 or 15 years old, maybe even younger when John Kennedy campaigned in West Virginia. Do you remember any of that?

A: Oh yes, because my family were Republicans. I thought it was a very effective campaign as well as some very uniquenesses about West Virginia politics that he clearly understood and took clear advantage of.

Q: Now when you were in-- When did you start college?

A: Started college in 1967.

Q: So, '67--interesting time to be in college in West Virginia, '67 through '71, sort of the height of the Vietnam era, then the tail-end of the Watergate scandal. Were you touched in any way as a student at that time by any of this?

A: Well I started off at Duke University in North Carolina and spent two years there, and came very close to marrying my wife-- who I finally talked into marrying me about five years later-- who was up at West Virginia, and these long distance romances don't work very well. So the first two years were at Duke and that was a relatively conservative campus but one that you learned early on how quickly things can change in. I think the fun part--and when I retire from Cisco, and it will be my last job barring a major surprise--I'm going to teach, and I think to be around young people in a university environment is tremendously exciting. There are no sacred cows. It is a time of free thought and challenge, and I think that's a very healthy thing to have in a country, and Duke and West Virginia were no different in that way.

Q: Now, you earned degrees at-- I should point out that for a man who had a learning disability in the mid '50s you finished second in your high school class?

A: I think that was too generous. I don't know where that got started. It's one of those rumors you can never stop, but whoever was second I'm sure wouldn't like that. [laughter] I finished in the top percentile in my high school, couple of percent in my high school class, but it was not for second or third. The people who did, did a great job. Ed [Britten] was our valedictorian. He was my roommate at Duke when we went down there.

Q: How did you make the decision to go to Duke?

A: Well it's different than the way the kids do today. I just applied to a certain number of schools, got accepted at most of them, asked some of my friends where they were going and Ed and I decided to room together. I went down there without ever seeing the campus and went down there mainly on the recommendations of friends. So I think today kids do it much more intelligently as far as looking at the schools and [indistinguishable] how does it match versus this profession. I was just a little bit more laid back in the selection process.

Q: Well you left Duke and went to West Virginia University, and majored in business. Now was this a shock to your parents?

A: Well my parents both knew that I was headed toward medicine or business, and it was almost a tossup. I decided my junior year that it would be business, for a reason that might surprise you.

I actually loved medicine and I worked in the emergency room at the hospitals and it would be a lot of fun, but to get the positioning for med school I would have needed to attend labs every afternoon for my junior and senior year, and I'd already been through two years of engineering where I attended a lot of the labs anyhow, and I wanted to enjoy college. By this time I'd figured out I could make whatever grades I wanted, if I wanted to work hard, and I wanted to make good grades but I also wanted to have fun because I believe it's the one time in your life when you are completely free and while you might take it a little bit seriously at the time it really was not. It was very relaxed and laid back and we had a great time in school, both with my wife over the years, but also with the friends that I made that we're still friends today. We formed intramural teams and won a lot of campus championships--

Q: What did you play?

A: I play everything reasonably well, nothing very, very well.

Q: Did you pick any favorites?

A: Oh I loved basketball, but I'm six foot tall.

Q: But you were at Duke--

A: Well I went wherever they had a good basketball team, as my dad reminded me, but Duke, West Virginia and Indiana all had great teams at that point in time. Indiana actually had a national championship when I was there. West Virginia at this point in time actually was second only to Kentucky in terms of their basketball program and their records, but they haven't done as well over the last 25 years as they did before that.

Q: Now you thought Carolina was better?

A: Mm-hmm. Well, I have a lot of respect for Carolina since my daughter is going to Wake Forest and a large part of our operation is in North Carolina. You haven't seen basketball until you've seen ACC basketball. I live Big Ten basketball but ACC is even better.

Q: As in West Virginia and Kentucky it is indeed a religion there. You also got a law degree.

A: Mm-hmm.

Q: Ever tempted by the law?

A: No, I intended and have used the law in terms of how you'd apply it in business. The good news is the government has not got as involved in business as I thought it would, because I thought it would be even more involved than it is today, and I view that obviously as a very positive-- But legal give you a unique way of approaching problems. So it combined with business and law and some engineering background allows me to come at a problem perhaps different than some of my counterparts are.

Q: Oh indeed. So you did the law degree in preparation, knowing that you were going to go on for an MBA at Indiana?

A: Yes, I knew I would never practice law, barring a surprise. [laughter]

Q: Now when did you enter Indiana?

A: I entered Indiana straight out of law schools. I graduated, undergraduated, in 1971, graduated from law school in '74, went straight to Indiana literally that summer. My wife and I went out there, and I had a van and moved into various student housing and enjoyed our year and a half at Indiana just tremendously. It was a great time.

Q: Any professors in business school there that stand out for you?

A: There were a number of very good professors in business school but what I actually enjoyed most in Indiana was the camaraderie of the MBA class and learning how the class actually works together. I was very active in the MBA association there as well as in intramurals, and it was when you began to really, for the first time, really think seriously, "All right, another year and a half I'm going to have to be out there earning a living.", and again, to build the relationships which help you later in life, as well as working together on projects because they focus more than perhaps in law school and undergraduate at that time, in terms of how do teams work together and I am really focused in terms of a management style, my philosophy on two issues, the first is fanatical focus on customer success, and the second is I require teamwork. I don't believe in individuals. I don't play individual sports. I play all team sports. Even in tennis I play only doubles and I believe you win or lose as a team. I learned a long time ago a team working together always defeats an individual or a group of individuals who are trying to "play together as a team".

Q: Well, just from hearing you talk, and having interviewed a lot of folks who were former IBMers, your first job out of school was with IBM?

A: Yes it was.

Q: Tell me about the impact that had. I mean there is no better sales training organization in the world, when you get out there, than IBM sales training. What was it like at IBM-- was this about 1976-- ?

A: Yes it was '76 when I joined them in January. I had just finished from MBA school, never had any intention of working for IBM. One of my friends was doing interviews for IBM and asked me to come and interview, and I'd already had my offers and I very professionally told him that I didn't think it was the right match for me and the last thing I wanted to do after law and MBA school was go into sales. He explained to me how IBM was a great training ground and would be a lot fun, and I said no thank you anyway, and he said he had two tickets to the basketball game that night and I said I'd be there. So I ended up at IBM, more just out of a curiosity interview and a favor to a friend, and then I realized how computers were going to begin to change business forever. The local branch manager and branch managers at IBM at this time literally controlled the geographic area that had responsibility for and never let their customers down, but they knew how to apply the technology for solving business problems and that fascinated me. He also showed me what I could make within a year or two, and I was pretty proud of my offers, and the offer there was even better. So as you alluded, it was an excellent post graduate course. It was an example of a company that literally had ushered in a new era in business and at the same time an example of a company that didn't change over time and paid a terrible price for it. So I got the opportunity to see a lot of things that were done very well but also watch a company not change over time and miss changes in technology and business evolution, and pay a terrible price for it.

Q: Who did you work with at IBM that particularly stands out? Is there someone that trained you that was a mentor there?

A: Well, I don't know if he'd consider himself a mentor or not, but it would be Chris [Christie], the Branch Manager in Indianapolis who I really was fascinated by, and how he built his organizations. He had recruited himself many of the people who came up through the IBM ranks, and it was surprising the number of very top managers in IBM--I don't think I'd be off the

record in terms of saying maybe as many as half out of the top ten at one point in time--have been directly or indirectly associated with his branch and his training.

So he was quite an individual and very effective both in business and treating people well.

Q: What were you selling for IBM then?

A: Mainframes.

Q: Mainframes.

A: We sold mainframes that cost millions of dollars. They didn't have the processing power of a PC today.

Q: What was your first big-- Do you remember your first big sale?

A: You know, it's interesting. You remember your misses more than you do your successes.

Q: What was your first big miss?

A: My first big miss was the cancellation of a thousand dollars piece of equipment, and it just crushed me because I'd never had a cancellation before. My first big sale was actually a computer system to a company in Muncie, Indiana, where the CIO was helping to train me and it showed the relationship IBM had with it, an individual by the name of [Estofane], really nice man and he gave me my first order on a napkin for a couple of million dollar computer. We both laughed and we said IBM would never process that. Well they did and I think that was kind of my management philosophy, is you form relationships with people, either in your personal life or in business that last forever. I'm partner for life--I'm old fashioned in that way. With my customers, I'm not aware of one that I couldn't go back to that I had earlier, because I'd do everything never to let them down. The trust that I'd developed with my management team at IBM and later with Wang and now with Cisco, is one that my word is by bond. So when I brought in the order, the Branch Manager, he knew I was going to tease him on this one, he went ahead and processed it, and he looked my in the eye and said you better be sure this is good because otherwise your credibility will be damaged forever, and I understood that message, but I knew it was good also so it was easy for me to do.

Q: Handshake and a napkin...

A: Handshake is what it's all about. I'd rather have a handshake than a contract any time. A Person's word--that's what they're all about.

Q: Six years you were at IBM. So you started as a trainee line salesman, not fresh out of school because--well fresh out of school in the MBA sense, but having a--

A: Nine years of college and had a great time.

Q: Where were you at IBM when you left?

A: I was at first line managers. I'd done the typical line position sales, then staff position in terms of competition, new product direction and then line position again as manager.

Q: So you were beginning to teach and coach yourself along the process.

A: Mm-hmm.

Q: All right. Six years at IBM. In 1982 you moved from IBM, one of the legendary companies in this business, to a company that was started by another legend, An Wang, to Wang. Tell me about that move and why you did that.

A: Well as simple as it sounds, there have been four generations of computer technology--mainframes, minicomputers, PC LANs and now the Internet. IBM was beginning to slow down. You could sense it and feel it. Minicomputers were the next major area of computing and I wanted to be a part of that. Dr. An Wang was the smartest man I've ever met in my life. A lot of people remember you for how you end up but they forget his 31 years of success and making transition from one product area to the next. He was the individual that invented magnetic core memory. He's what you and I, Dan, would hope we'd be like if we were ever really, really successful. He was as humble and as kind a man as you could imagine. He really had fun in life. He was my tennis opponent at times and we'd play doubles and the only rule was you didn't hit the big serve to him, but after that if you could beat him any way you could, you did and he expected it. He was *brilliant* with math. I'm good at math but he could literally, with his mind, keep up with me with a calculator and topics that I already knew. So Wang was a very good time for about six years that I was there, and the last year and a half were very tough because we saw similar challenges that IBM saw, in terms of a company that didn't make product transitions at the right time, that got too far away from their customers, that built up an overhead structure that

really didn't make sense for the future. As always, the people who lose are the customers, the shareholders and the employees. It was a painful time, the last year and a half.

Q: You had to make some very painful decisions about employees there at the end?

A: Yes, it was the worst time in my life. We laid off five thousand people out of my own organization. It was at a time there weren't jobs available for them to go to, and it teaches you in life why you never get too far away from the customer, and it teaches you in life to make some tough decisions early on about the size of your organization, and maybe run it a little bit leaner than others would want so that you protect your employees, your customers and your shareholders in the long run.

Q: So, coming from IBM you learned to be very close to the customer. At Wang you learned the price of not staying tight and close.

A: Well actually both IBM and Wang during their glory days were very close to the customer and both of them, as they got successful, committed the ultimate sin, they got too far away from the customer and they paid a terrible price. So both of them made the same mistakes. That's why I spend so much time, almost half my time now with customers, is not to make that mistake. That's why I pay every manager in our company on customer satisfaction. It's major customer satisfaction every way imaginable, and while I'm sure we're going to make mistakes here at Cisco, it won't be the same ones that I've seen, or at least I hope not.

Q: Did you find Wang or did they find you at IBM?

A: They found me.

Q: And you knew An Wang for how many years?

A: For seven years before his death.

Q: Yes, truly one of the legends--

A: *Brilliant man!* I mean, he talks about walking across the Harvard schoolyard and inventing magnetic core memory in his mind, with zeroes and ones, and he talks about it as though it was nothing. He is probably the smartest man I've ever met in my life, and the ability to apply that to either manufacturing or engineering or sales or strategy, etc., and yet a very humble person. He was a very good man.

Q: Where were you living when you were at Wang?

A: At Wang I lived-- Wang told me to come over after IBM had moved me all over the eastern part of the nation. Wang said, "Come and join Wang and we won't move you." IBM stood for "I've been moved" at that point in time, and that sounded good.

We proceeded to go from Pittsburgh to Atlanta to Greensboro to Chicago to Boston. [laughter] So we did move around a lot with Wang, just as we had with IBM

Q: Well, now we're up to about the latter part of 1990 and you're talking to some folks at Cisco. How did that relationship begin?

A: Like many things in life, lots of things that either benefit you or hurt you later in life have to do with what you did earlier. When I was a Wang and we were laying off people I felt that I could just not take a job interview at the time that I was laying off my team and saying let's charge the mountain again, and then laying off people once we've taken the hill. So I told the Wang family and the new leadership that I'd lost confidence in the company and it was time for me to do something else, and I wasn't going to look while I had the job. So I resigned from the company and I just thought the job offers would come. The first month was very humbling. Within the next two months however, I had 22 very serious opportunities going on and got offers from a number of them. Out of the 22, 21 of them came from networking and from friends, and so it shows you how you treat people at different stages in your life, how that comes back to help you or hurt you later. The job that I got here at Cisco, I would have never got the chance to interview because the search firm who had the search for Cisco had already presented me in another Silicon Valley company and I had the offer to be the number two there. So I had multiple offers here in the Valley and it was purely because of a person from Wang who I had helped when they had problems, and it wasn't problems of their own fault, they just got sideways on politics, and I gave them a chance and they remembered that, and they were here at Cisco and when they heard that I was looking for a job they told their president this is the person they ought to hire, and that's how I ended up here.

Q: Now who was that?

A: It was a guy by the name of Terry [Eger]. Terry had actually-- I had multiple offers here in the Valley and each one of them had called him and asked him for a reference and I

didn't even know he was here. He gave me two great references, and the third one, the recruiter says this--the venture capitalist to this day--she said "John, Terry was giving you a great reference and about half way through he said 'Ah, he isn't as good as I thought and I've got to go.'" and he hung up and he literally called my wife at home that night and said this is where John ought to be.

I interviewed out here and came in contact with a very good individual by the name of John Morgridge who is now our Chairman, and Don Valentine, who is our Vice Chairman, and both of them educated me on what the Internet and networking could be. I took the opportunity and the risk and moved out here when the company was only 70 million in sales.

Q: One of the things I really want to have you talk about is the strategy that you and John Morgridge and Ed Kozel came up with for moving this company forward. Before I get to that though, did you ever meet Leonard [Bozack] and Sandy Lerner?

A: I met the two founders after they'd already left the company, yes.

Q: Now, tell me about this four step plan. At least the legend is that you and John Morgridge and Ed Kozel came up with sort of four guiding principles for Cisco. Tell me about that.

A: Well, if you look at what's made Cisco successful I think there are four key elements. The first is just the fanatical approach to customer success, and that's really a product of having been at IBM and Wang and watched the two companies make the same mistake twice, and that's what gets most successful companies in trouble, is when they think they know better than the customer what they need. The second thing is more of a management philosophy, which is the quality of the team. I learned early on in sports that a good team who functions well together and likes each other will outperform a team perhaps with better individual stars but without the teamwork. And so we focused early on on the quality of the team, and one of the things I learned from John Morgridge is to share that stock very well throughout the whole company. We give 42% of our stock to individual contributors. No company in history has ever done that. Whether it's discussing this with President Clinton or Jiang Zemin in China, the concepts of capitalism being spread so much across the entire company is something that no one has really seen it like we've done at Cisco. Our average employee has over 250,000 dollars in stock appreciation. I'm talking individual contributor, not manager or Vice President or

President. So we align the goals, the shareholders, the customers and the employees all in the same direction. The third is how we used our technology, and we are the most advanced users of the Internet in almost every category, so we aren't the shoemaker's kids who tell people what they ought to do but don't wear shoes ourselves.

Q: Practice what you preach?

A: Oh yes. We did a third of the world's e-commerce just two years ago. We have literally a virtual company in almost aspect. Over 75% of all customer support is done over the Internet. Our employees apply over the Internet to Cisco. They do their benefits and their travel over the Internet. We communicate with people over the Internet and they'll retire over the Internet. And finally it's our strategy and vision, our ability to catch markets in transitions, to set out goals that most other people would say would be impossible, and then not to fall into the trap of thinking we're smarter or going to work harder, but say "How do we do it different than other people have done?" So it's the combination of those four elements that I think have allowed us to accomplish what many other companies have not been able to. Having said that, there's no substitute for being in the right industry at the right time. So whether it's mainframes, minicomputers, PCs, LANs or the Internet, it's the companies that had a chance to lead there, were really exciting. But different than the three prior generations of computers, the Internet will change the way people work, live, play and learn, and people will look back on this and they won't call it, in my opinion, the new economy, the digital economy, they will call it the Internet Revolution, the Internet economy that changed everything, and unlike the Industrial Revolution it won't occur over two to three hundred years, it will occur over two to three decades. Simply combining people and information and truly virtual global companies.

Q: Well from this perspective, at the end of the 20th century or the beginning of the 21st, this revolution seems to be moving at an incredible pace. Who knows how it's going to look 300 years in the future? What do you look for, given the fact that you have a leadership position and want to maintain it, what do you look for in a leader and an innovator in that environment? How do you recruit and what do you look for?

A: Well, we've been able to attract, almost without exception, anyone, anywhere in the world, that we wanted to have join Cisco. People work for a company because it's an exciting place to be, they like to be around other smart, challenging people, they like to work for a higher purpose in life than getting a paycheck and the company just being successful, and they like to work with leaders who have vision. There's the term "leaders", not "leader".

Characteristics I look for are remarkably basic. It's people who have a track record of overachieving, it's people that had the skill sets to recruit and develop people well, who are customer-focused, teamwork is a requirement, it's not a request--if you're not a team player you're gone out of here, the ability to balance planning and reacting, the ability to communicate openly and to treat others like you'd like to be treated yourself. Most of our managers and leaders really like each other, which is kind of unusual for a company of this size.

Q: Yes, I was interviewing Andy Bechtolsheim, as a matter of fact, and he said to us that one of things that he liked best about Cisco is that, despite its size, it's like working in a small, innovative company.

A: Yes.

Q: I Want you to talk a little bit about your strategy of acquisition. In '93, I guess, you made your first crescendo acquisition. Was that a moment of supreme confidence, or stark terror, or something in the middle?

A: It was in between the two. If we really knew how difficult acquisitions were we probably wouldn't have done the first one. But having said that, what Cisco has traditionally done is we've caught markets in transitions. Those can be either products, those can be in how customers buy, those can be economic transitions or combination of technologies such as data-voice-video, and each time we catch a market in transition that's when you gain or lose market share. So we made a decision, learning from other companies, Jack Welch at GE in particular, about being number one and number two in each market, or not to compete, and the way we felt that this would be done in Cisco, and we outlined a simple matrix, is we segmented the market in the focus areas. We decided to do part of it ourselves, probably two-thirds ourselves, and to partner or to acquire for the other one-third.

And then our goal being to be number one, worst case two, in every product area, and as simple as that sounds, that's the matrix we put up in front of our board of directors in August of 1993 and we literally have filled in over the last five and a half years. Now remember this is an industry, unlike banking or the phone companies, where you acquire geography and customer sets when you acquire.

All you acquire in my industry is people, and it was an industry we did our first acquisition that they remembered the failures, the IBM, [Rohm], the AT&T, and NCRs, so when you're trying to do

something that others have failed with you have to say how are you going to do it differently.

And we came up with five very simple rules: commonality of vision, short term wins, particularly for the employees that you're acquiring, strategic wins, chemistry and culture, and if you're doing a large acquisition, geographic proximity. Having said that, out of our 33 acquisitions to date, only two of them have not worked, where if you look at the rest of them in the industry, almost all of them have failed. So it goes back to saying, if you're going to do something that somebody else has not done, how do you do it differently, and then stand by those issues.

Q: You have now, the beginning in '93, over the past six years, this systematic process of acquisition. You actually have a team in place that does this now?

A: Yes, and it goes back to empowerment, but it's a very small team that targets the acquisition, determines it, and then we pull groups out of other functions in to do the acquisition, and then disband it. So it is an integral part of our culture. It scares me even when I think about this, but Mike Volpi who leads this team is a 32 year old Stamford MBA and he spends billions of dollars a year, and he's the third generation. It was Ed Kozel did the first generation, Charlie Giancarlo did it the second and Mike did it the third. So we learn how to handle things through process and then replicate them and get better and better each time, as opposed to reinventing the wheel every single step of the way.

Q: One of the things that you've done, I think that's going to be interesting from a long term perspective, is the branding that you've done for the [internetwork] operating system. Can you talk a little bit about that?

A: Well, if you watch what, in each technology area-- It wasn't the hardware. People tend to think of the hardware--mainframes, minicomputers, PCs and now Internet devices-- It's hardware and software working together. What gave IBM its leadership was its operating system and mainframes. What gave the companies their leadership in the minicomputer systems, whether it's Wang or DEC or IBM or Data General, was their operating systems.

The reason Microsoft was so successful was its operating system for the PC, and if Cisco continues to be successful it will be our combination of software and hardware combined. So it isn't just stand-alone software or stand-alone hardware, it's the two being married together that really empowers the Internet and has allowed Cisco to go from 70 million in sales just eight years

ago to a run rate of over 13 billion today; the most profitable, fastest growing company in history, to this point in time.

Q: Yes. It's truly an exciting time to be alive and I think everyone in this room is certainly as enthusiastic as you are about this revolution.

A: Yes.

Q: I always like to ask, is there anything that gives you pause about it? Do you think there are any things we should watch out for?

A: Well, I tend to be an optimist in life and it's more fun being an optimist than a pessimist. Secondly, I think it's like any changes that take place in life, whether they're personal or within business or within countries or global, change is mainly for the better and there are always going to be bumps and you've got to say how do you deal with those bumps? But I've always believed you live in the future and not in the past, and when you see a transition coming you get ahead of it, you don't let it pull behind you.

Q: The changes that this revolution are bringing about are truly extraordinary. Some credit the end of the Cold War to the pervasiveness of information and information technology. The changes in medicine and science are extraordinary. The arts have been transformed. As a genuine leader and advocate, are there some particular things that have come about already in your lifetime that you're particularly proud of, as far the Internet and it's effect?

A: Well I think there are now two equalizers in life, education which we talked about earlier, and the second being the Internet. The Internet creates a level playing field between companies regardless of size, and between individuals, and between countries. So unlike the Industrial Revolution, where you had to have a certain amount of capital and had to come out of a given environment, in the Internet Revolution with the right education and the right creativeness there's almost no limit to what you can do. And all of a sudden it won't be the big beats the small or the small beats the big, it will be the fast beats the slow.

Q: Another question that I've tried to ask all of your colleagues in this area is about this technology and innovation. Where do you think innovation comes from?

A: I think innovation comes from the human spirit, the human mind and it's people that make innovation happen. Sometimes it can be stimulated by the school or Silicon Valley, the environment you're in, but when you look at Cisco's assets and, you know, many people credit us with tremendous innovation in many areas, it's all people. It's what's in here combined with what's in here.

Q: Yes. We're getting close here so I'm going to ask you these two questions and then we can just continue as long as you have time.

A: Sure.

Q: If you don't mind.

A: I don't mind at all.

Q: One of the things that we sometimes have an opportunity to do is gather the leaders of this revolution at Monticello, around Thomas Jefferson's table, the leader of that revolution, and record the conversations for the collection. If you could put together a small dinner party of six or eight leaders of your revolution, who would you like to have there and why would you like to have them?

A: The question is an interesting one because if you were to say who would I enjoy most at the dinner party, it would be family first, and secondly it would be friends. Interestingly enough my friends today are largely my friends from seven or eight years, while expanding that a fair amount, I form friends for life and the fact that we've changed status-wise has not had anything to do with the change in friends, in terms of the company perspective.

But if I were to say who would be the people that would be extremely stimulating to have at dinner I think it would be a combination of business leaders, government leaders and education leaders because for the first time--and this is different than I would have thought in school--how well the three work together may determine the winners in the Internet Revolution because one without the other is very difficult to achieve. So to me, out of the current leaders, it would be fun to have a Vice President Gore or President Clinton, a George Bush, a Jiang Zemin from China, from the business leaders a Jack Welch, an Andy Grove, Jeff [Basis] from Amazon.com, and from the education leaders, the President of Duke, the President of Stamford, [indistinguishable] I think would both be excellent to that, and then one or two education leaders out of the [K

through 12] area. And if Doctor Wang was still alive I'd like for him to join as well.

Q: You've had a lot of experience in international trade because of your former positions. How would you contrast, say the potential and-- Talk about the potential in the undeveloped areas of Asia, what you see there.

A: Well, the Internet--and I'm using it synonymous with all types of networking, data-voice-video combined, whatever combination of a company's internet, a service provider environment, the capital "I" Internet, etc.--really is the equalizer in life along with education, and what presents itself in any country, regardless of whether it's Asia or otherwise, is the chance to participate in the next Industrial Revolution, and it's a level playing field. It's interesting, whether it's the Prime Minister of Singapore or the Prime Minister of Malaysia or the CEO of Hong Kong or the President of China or the Prime Minister of Korea or the President of Taiwan or the Prime Minister of Australia or Prime Minister of Japan, how quickly government leaders are getting--this gives them a chance to participate, whether they were a key leader in the prior Industrial Revolution or whether they missed that or came late to it. And so it along with education is the equalizer. Now the challenging part will be how many countries and government leaders and business reach out and grasp this, and how many of them let this opportunity to be a leader in the Second Industrial Revolution go by and their country, their businesses and the individuals, they miss this opportunity.

Q: My own prejudice showed in my question because I obviously, myself, see Asia as the next huge--

A: Economic opportunity.

Q: ...market. But the other area of course that is untouched by this technology is sub-Saharan Africa.

A: Yes.

Q: Any thoughts on--

A: Well, the Asian leaders tend to look at the market more long term than the Americans or Europeans or African leaders do, and that's both the strength and limitation. Government and business tends to work together so they move fast once they decide to move.

Sometimes getting a country to move in Asia is more challenging. Witness the challenges that Japan has faced over the last three years. But it goes back to, if you believe the two things that are very important to a country's future are the infrastructure, the internetworking infrastructure and the use that is built up, both in business and government, as well as the education system.

Those countries that do not focus on the education system and their infrastructure will unfortunately get left behind, and this is where government leaders and business leaders have an ability to wrap their arms around that issue, and then not to accept excuses and to say if I'm going to participate I'm going to move, if not I'm going to be left behind, are the key. So far that has not seen the acceptance across Africa as much as I hoped it would, with the exception of South Africa where Mandela I think is making reasonable progress but still has a long way to go on both the education front as well as the infrastructure front.

Q: Unfortunately the time is slipping by. I want to ask you the 300 year perspective question now, if you don't mind. This interview will go into the permanent research collection at the museum and in three or four hundred years some student--or actually, given the networking, anybody in the world that looks back on this time and this place and on John Chambers and his role--how would you like to be remembered?

A: Well unlike the Industrial Revolution that occurred over several hundred years, the Internet Revolution will be over in two to three decades. So I think it will just be one rapid blip in time three hundred years from now. How I'd like to be remembered would be as a good father whose kids did well in life--and I'm talking about happiness, not necessarily financial success--and a good husband. That's the most important thing to me.

How I'd like to be remembered from a business perspective is a leader of perhaps the most successful company, not only of its time, but the company that changed the way people worked, lived, played and learned. At Cisco usually when we've set a goal out we've achieved it. Time will tell if we can achieve this goal. And I'd like to be remembered as a leader who, from the business perspective, built a very strong team that won as a team or lost as a time, and we didn't lose very often, but one that shared the success--and the occasional missteps--with all the employees, not one where just a very few people benefit. And perhaps the most customer-sensitive company of all time, who is also viewed as a good competitor but a kind competitor.

Q: Well, that's it. Wonderful. That's really a wonderful statement. Thank you.

A: Oh we believe it and we're going to try and make it happen.

Q: And it shows, and it really shows. Any questions that you-- I mean given that we only have about five minutes, are there any questions that you would really like to have me ask or make a statement on?

A: I thought you did a very good job of hitting them overall. David, questions that come to mind?

David: You talked about leadership. I don't know if you want to talk about competition at all?

Q: Oh, actually that is one of the questions I had on my list, and that is, you talked about the importance of integrity and honor. Who are the competitors that you respect most in that regard?

A: Ah. Well, I think Eric Benhamou at 3Com is an example of a really good and very tough competitor. Each time I get a call from the search firm I say Eric's the guy you want to get. [laughter] While I enjoy competing against him I think he also is a very fine person and the type of person that you want to be involved with. My attitude toward competition might be a little bit different than my peers and different than I thought perhaps when I was growing up through school, and that is that you want to beat your competition when you compete but you want for everybody to win.

I learned the hard way at IBM and Wang, when we went through a period of not having competitors, you actually get into more trouble by not having competitors. The government might worry about it for a period of time but what gets companies into trouble is when they don't have competitors for a period of time. So I'll have market share five or ten years from now because of Eric and other strong competitors such as Lucent and [Nortel], who are many times our size, than I would have otherwise, even if it was nice for a couple of years not to have competitors.

But my view is that you should compete at time, just like sports. After the game is done you should learn from each other, you should work on common goals together such as education, such as the network economy, such as key industry issues and separate those and not get the competition spilling

over in an undesirable way that both affects your relationship with your competitors and society as a whole.

Q: You work with President Clinton on his advisory committee on trade policy. (One minute?) Ha! I'll ask you-- Tell me, what do you see as the largest problem facing global trade?

A: I think the key issue that can get global trade into real trouble is government intervention, and even though I'm a Republican, President Clinton and Vice President Gore got it first. If they create a level playing field and allow for the free flow of business, that will help the economies of all countries and it will also allow the US to compete very effectively globally because we're comfortable in that environment.

So I think the administration is absolutely headed the right way and I applaud that business lead and that government support type of mentality, and learning the technology, which they've done well. We're starting to see that across all leaders regardless of political party in our country, but also regardless of which country you are in around the world. We're much more similar around the world than we'd like to think.