



## **Interview of William “Bill” Barnett**

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**Hancock:** Bill, thank you again for coming today. I want to just start by asking you this question that, in the landscape of companies that you've studied, which have been in the tens, if not hundreds, what is it about NetApp that has made it worthy of your attention both as a researcher and as an educator?

**Barnett:** You know, I remember first getting together with the team at NetApp just after they had gone public. And there weren't many. And we were in a room talking about some very important business questions they were faced with. And I was struck because the topic number one on the table was that they wanted to keep the culture of the organization. And to a person, everyone around the table, Dan Warmenhoven, Tom Mendoza, Dave Hitz, James Lau, and a number of other people turned to me. And at different times during that first day that we spent together said essentially the same thing, "We've already succeeded in many ways elsewhere, each of us. We came to this company to create a great company." And for years of course NetApp has been awarded best place to work in all different countries. It's often talked about as a great place to work. And I think a lot of people would be surprised to know that this was a goal of the management team at NetApp from the very beginning. And it says a lot for them.

At the same time, it's a management team that has always been focused on getting results. I think all too often when we think of the Silicon Valley model, it's talked about almost in an idealistic way as if it's a feel good thing, or a make the world a better place through human relations type of thing. And there may be some of that. But to be frank, NetApp was always about getting results. And that was true in the days of Warmenhoven. It's true today under Tom Georgens' regime and leadership. It was true as Tom Mendoza was growing the worldwide organization, and so forth. And it was even true in the beginning where nobody wanted to pay attention to them, but they had a product that worked great. So, it's about results. But for these leaders, it was also about creating a great organization, a place where people were respected for the quality of their work and ultimately a great place to work.

**Hancock:** For companies in the Valley, these values of good culture and leadership, and results sound like something almost like apple pie that every company would want. What is it that's distinct about Net App that has made both these values turn into something that's unique, if you will, about the company?

**Barnett:** Well, you know for entrepreneurial companies, keeping your eye on the ball, having a fit between what your product or service does and what the customer wants, has to happen. Or you're driven out of business. What's made NetApp interesting is that as they grew, they never took their eye off of that ball and remained focused on what was needed from a business perspective. And when you combine that focus with a great culture, you get something that is magical. You know, the Silicon Valley over the years has had a number of gold rushes. And so, many people come to Silicon Valley, and to technology generally, with a strong desire to get rich as quickly as possible -- be part of this economic miracle that is technology, generally in Silicon Valley.

And of course, there are economic motives behind people going to work. That's nothing wrong with that. But that was not the primary motive behind the work that was being done at NetApp and hasn't been over the years. It's been about delivering a great product to customers that they would find compelling, and keeping your eye on the ball with respect to business. I remember when NetApp was just taking off in Europe. And they rewarded a sales head there for going around the normal marketing channel in order to deliver a customer a product that the customer needed. And that was rewarded. I remember when they were building their Japan organization. And they had to have a leadership change in Japan because they weren't penetrating the market. And they weren't doing as good a job as they felt they could do. And what was interesting about both the European and Japan examples is that in both cases NetApp did well by putting the NetApp culture in those other countries so that they wouldn't be a Japanese NetApp, or a European NetApp. They would be Net App in Europe, or NetApp in Japan, carrying their culture forward as a reason for their competitive advantage. And I think a lot of Silicon Valley companies would do well to try to emulate that. And I think if people want to understand the secret of the Silicon Valley, they would do well to look at NetApp as, in my opinion, the iconic example.

**Hancock:** Well, that's a remarkable perspective about NetApp as an iconic example. These attributes of the culture that have led to a real competitive advantage are key to understanding why NetApp is special. Could you share a little bit more detail about that?

**Barnett:** Well, you know, cultures of organizations get talked about a lot. When you think about them, they're about the things that are valued and not valued. And at a great company, the actions that people take that are good for the customer and getting the product or service to the customer, that being valued is probably the most important part of culture. And I know for years at NetApp they've talked about the seven second rule. And years ago, they started talking about it. And I remember when I first heard it, I thought it sounded a little trite. But hearing it in action is fantastic. And it comes down to this. When you ask someone to do something, even if you have an authority relationship with them, take just seven seconds, not seven hours like a college professor, or not zero seconds like many leaders, but seven seconds to explain why. And to this day, I remember a high level engineering executive turning to someone else in the cafeteria and-- you know, it's a very flat organization and everyone together there eating, no special executive facility. So, we're all there together. And this high level engineer turned to one of her reports, someone who was below her in the hierarchy, and said, "I need you to come in to work this weekend." And, you know in a lot of organizations, that's where it stops. And then of course that person makes the call home, "I've got to work this weekend, and I'm circulating my resume and I--" that kind of thing. Whereas, in this case that's not how it went. It was, "I need you to come in this weekend because we're doing an installation for an important customer. If something goes wrong, we cannot afford to have them have to wait until Monday or put in a call. You need to be there on the ground to make the call." And that's all the difference. Now that call home is very different. I need to be at work this weekend.

No, it's not like that. I'm important. I have to be there to make the call. It's empowering, but it also transmits the culture. It says what's important in this organization is not your position in the hierarchy. It's not your title. It's making the customer happy. And in big companies, that gets forgotten. And in competitive markets, you forget about that, and you end up losing in the long run. NetApp's sustained competitive advantage has come from that culture.

**Hancock:** Marvelous. That's a wonderful take away, the seven second rule. This sustained competitive advantage is something that is remarkable here-- for any company, but especially here in Silicon Valley. As you look at the history of the evolution, you've been such a part of the company, what are some key inflection points? And what do you think made the difference for the future at those points for NetApp?

**Barnett:** Well, there were a number of crucial inflection points when I could have imagined NetApp frankly not making it, not surviving or perhaps being acquired or stumbling as it kept growing. Early on, the top team, the top management team, made a decision to go multi-protocol to make it possible for firms that were in the client-server environment of UNIX, so called NFS environment at that time, or if you were in the, at that time, budding Windows environment-- it would have been the Win 3.2 protocol environment, to use a NetApp filer. And that was technologically complex. But by going multi-protocol, it was a very courageous decision. I think Dan Warmenhoven himself was the one who made that decision. They advised him as a team, but when it came down to it the call had to be made. And they executed on that. It turned out to be key because in the spreading distribution systems of large organizations, client-server was going with more than one standard. And that decision made it so that NetApp was not dependent on the success of any one standard.

So, that as time went on and Linux, and the so-called LAMP Stack and so forth succeeded, so there were many other technologies out there. And of course the World Wide Web and the Internet leading to a proliferation of different kinds of technologies all within a common network, NetApp filers could be relied upon to be useful. That was a key technology inflection point.

Another inflection point, which is often not talked about was a decision in the late 1990s when the Silicon Valley was in a tremendous state of a frenzy of activity. The World Wide Web had come along, and of course that's a very exciting technology. Arguably we became a little bit too excited. And of course there was a bit of a bubble. And a recovery after 2000, 2001. But before that point when things were still frenetic, Dan Warmenhoven made the decision to move out of technology customers and to diversify into other kinds of customers in manufacturing, banking, services, and so forth, which was a big change. It's not as tangible maybe as a technology change. It's not as identifiable. But it meant that the sales force, the sales engineers as well as the sales force more generally, and marketing of course, had to move out towards a different customer base, a different kind of customer at exactly the same time when technology customers were screaming for more product.

So, in this sense, management and Dan Warmenhoven specifically, but the top management team generally had the vision to see that they needed to lead the company in directions that immediate market

requirements were not asking them to do. And there were many who wondered why. And there was a lot of back and forth on this question. Why not make hay while the sun shines? The technology customers are out there. And of course they were still selling into technology customers. But of course within two or three years, this decision would turn out to be crucial. The fact that NetApp was not hurt as much during the downturn, as many companies were-- of course stock values were hit everywhere. But in terms of actual doing business and revenue, and continued growth, NetApp was able to continue apace because it had already begun to be a serious enterprise player across the entire economy under the visionary leadership that we saw in the 1990s.

Another important inflection point for NetApp came as we were into the 2000s with globalization, NetApp, like many successful American technology companies, was challenged to globalize. I think it's fair to say that a typical technology company, successful technology company in the United States in the 1990s, would have a strong domestic presence. And then probably would use indirect channels, and value added resellers in other parts of the world. There are even companies to this day, and it was especially prominent in the 1990s, who would in their organization charts have a box called R-O-W for the rest of the world. People are surprised to hear about that now. But with globalization, NetApp was challenged to take its business model, and its culture, and its products into other countries where the distribution channels were perhaps not as friendly to them. And in a sense, they were a startup all over again. They had to prove themselves out based on the value of their product in Europe. They had to prove themselves out in Japan. They had to prove themselves out in Asia-Pacific generally, Australia and a number of places, in India and so forth. And their management team made that transition incredibly well. Warmenhoven and Mendoza, but really the entire management team, turned their attention out into the global environment.

And to this day I know Rob Salmon and Tom Georgens carry that forward, where NetApp has a global footprint and continues to feedback the learning from the rest of the world into the product development process back at NetApp domestically. That's a major inflection point. And people may not realize the global presence that NetApp has. And I think it comes from that kind of visionary leadership.

**Hancock:** So, you mentioned that you use NetApp as the only case-- sometimes students today, or young entrepreneurs say, "What can NetApp teach me? It was from another era, in a different technology in a different environment." And these themes of pivoting or things or lean startup, you've pointed out that these were things that NetApp was actually living before the terms became popular. Say more about that.

**Barnett:** I think it's popular when we think of Silicon Valley, especially in the modern era, to think about it in terms of consumer Internet companies that we're aware of. And those are some great companies obviously, Google, Apple, Facebook. These are companies that are touching our lives every day. And you don't have to be an engineer to understand the significance of the things that they do. And those companies do have characteristics that make them special. But if I am teaching about the Silicon Valley and have time to only really bring up one example, I always use NetApp. The reason is that NetApp was created through an evolutionary learning process even though the founders of NetApp didn't mean to do it

that way. And it makes it especially poignant as an example. I think it's fair to say before about 1990, if you go back into the '80s, and '70s, and '60s, there were always examples you would hear about from business school professors of companies that had one way or another stumbled into success. And often they would be talked about in business school lore as these accidents of fate and used as examples for the randomness of innovation.

What makes NetApp interesting is that the early business model was very different than the business model that ended up succeeding. And in fact, people were not supporting them. They didn't get backed by the big venture capital firms. And in a sense, they were initially in that sense a failure. They failed to sell their product to the customers they had identified. And the very product itself, its attributes, were not recognized by the founders.

What makes it special at that point is that faced with those setbacks, Dave Hitz, James Lau, Mike Malcom were searching for a way to be successful nonetheless. And coming out of that process, bringing on Tom Mendoza, changing the leadership over and bringing on Dan Warmenhoven, we saw a shift into a strategy that works based on the learning that came from that early failure. Now, the reason I talk about it this way is that when we look at successful businesses generally, not only in technology, but all over the world economy, there's the same pattern that happens over and over both for entrepreneurial companies and for new products and services that are revolutionary or disruptive. The following pattern tends to happen. The creators of those products, or services, or new entrepreneurial companies have a vision of what they're going to do, step one. Step two, they find out they're wrong. But then step three they find out about new possibilities for what they're doing that they never could have imagined. And the ability to see those new possibilities, and then redirect the strategy of the company, and reframe the business model to seize those new opportunities is a talent that only some leaders have. And they certainly have that at NetApp to this day.

And we now use that particular case study, the NetApp case study, as a guidebook for our own students. So, that when they go into the economy, coming out of the Stanford Business School and try to do innovative things and find that maybe what they thought was going to happen is not working out, that they don't stop at that point. Think about it this way. It's kind of like our lives and our careers. There are those who pursue a career exactly as they had planned when they were twelve years old and their teacher asked them what they were going to do when they grow up. But most people end up doing things that look very different than what they originally might have thought when they were a kid because life brings you wonderful, horrible, spectacular, troublesome kinds of events. And in dealing with those events, we discover ourselves. The same thing happens to companies. The difference is that with companies it requires great leadership to persist. And I think NetApp has had that leadership, so much so that I like to use them to be instructive for our own students at Stanford.

**Hancock:** Thank you. You've had a ringside seat and have been not only an observer but interacting with leaders closely over time. As you are teaching the next generation of potential leaders, what are the

attributes of leaders that enable this kind of evolving, sort of a living organism kind of style of growth and progress? And could you give an example where you saw those attributes at play?

**Barnett:** You know, there's no textbook that can create a leader, any more than a recipe can make you a great chef. But one thing that seems clear is that great leaders have a way of balancing two contradictory forces. And maybe it's best to tell a story to illustrate this. When NetApp was still just trying to penetrate Europe, they had a sales head there in Switzerland named Andreas Koenig. And he had the potential chance to land a very important customer. But that customer had a particular need for a certain kind of product. Now, Andreas knew that NetApp had created this product. And I won't go into the details of it, but it had to do with a sort of blend of local area and wide area networking and so forth. And Andreas knew that product had been developed in NetApp. And he knew that the decision had been made in engineering and product development to not go forward with it. So, it had been put on the shelf. There didn't exist a price list for it, there was no way to take that product forward. He came back to the corporate office here in Silicon Valley, had found the engineers who had been involved in it, located the product, brought them out to the customer in Europe, invented a price list, and made the deal. And it turned out to be a resounding success. And this customer became a very important reference customer for what became a surge of growth in Europe on the part of NetApp. And at some point, Andreas was called back to the corporate office. And you can imagine the mixed feelings about this. I mean we have rules in organizations about this product goes out with certain price lists in order to rationalize action. But Andreas was brought back to receive a promotion because he had done what it took to win a customer.

And you can imagine a lot of leaders-- I've known a lot of leaders who have failed when it comes to internationalization. Company after company who will declare that they're going to be successful. I remember eBay declaring they were going to be successful in China just recently. Amazon is declared that they're going to be successful in Brazil. So, Amazon is finally showing up in the Amazon. But we're not seeing results that, at least yet, that back that up. It will be interesting to see how companies do when they make those kinds of announcements. And historically, especially with American technology firms that have had a large domestic market, they've often stumbled when they try to go into other countries.

And so, the persistence of NetApp's leadership, in this case Andreas Koenig taking that leadership role, was key because it grew NetApp in Europe. That led to a series of relationships between NetApp and other value added resellers and large partners in Europe like Siemens, Fujitsu, and so forth that they could not have had if they didn't have the kind of leadership that persists in the face of the kind of pushback you get when you're trying to adapt your company to get into another market.

But at the same time, you can't be unrealistic. Great leaders have to be able to face market reality. And that's the two sides of this that I talk about. Not only Koenig, but all the NetApp leaders, check in on the way their business is doing on a weekly basis. They are very in touch with the numbers. They know exactly the sober reality of the different parts of the world market that during different times will be hard to penetrate or will have a downturn.

And so, there's sober action taken to be realistic about what doesn't work. There have been joint ventures that didn't work out where they had to move on and call it a loss. There have been innovations that didn't work out along the way. And so, it's not just a rosy path of undying faith in oneself. It's the ability to balance that candor and realism with the drive to persist in order to try to make a vision you have come true. And I've never seen a company that does as good a job of balancing those two forces among their leaders and their decision making processes than I've seen at NetApp.

**Hancock:** Well, thank you. I'd like to turn now to questions about culture. You mentioned a few of the attributes. You talked about a very strong culture, articulated culture. What are the aspects of the culture that you think are most distinctive compared to other companies? And what have been the implications both within the company and then or probably as it stood out perhaps against the competitive landscape.

**Barnett:** Well, probably what's been most important in the NetApp culture, in my opinion, and this is really just my opinion. And many others may disagree with it. But I think their focus on merit and results combined with respect. And that's respect for the sort of dignity and importance of individual action. So, in that sense, it's a very individualistic culture but one where your position in the hierarchy is not so important.

Silicon Valley firms like to talk about themselves as being flat or non-hierarchical. And the use of cubicles early on, of course that nowadays has given rise to office free environments with just conference rooms and then people using mobile devices for their work and working in different locations and being very collaborative. That's true for many Silicon Valley companies. But as they grow, all companies, including Silicon Valley companies, have the possibility of seeing hierarchy form. And it's just a natural consequence of growth. As companies get bigger, the number of internal relationships goes up by a cube of the size of the company, whereas the number of external facing relationships goes up only by a square of the size of the company.

And so, you can get to the point with a company the size of NetApp where everyone knows just other people at NetApp and where maybe you don't know a customer. Maybe you don't even know somebody who knows a customer. And at that point, you have to worry that you're not in touch with the customer. So, you have to turn to the culture of the organization to battle against that. So, wanting to have results, that merit based culture combined with respect and a lack of concern about hierarchy, and wanting there to be collaboration and horizontal communication throughout the company, I think has made NetApp very effective even though it has become very large.

**Hancock:** Well, thank you. Thinking about NetApp and its culture that's helped create being innovative both in technologies as well as business models is one way to-- sort of one lens. Can you talk about some of the innovations that you think have been sort of most noteworthy along in its twenty years?

**Barnett:** Well, you know there've been a number of innovations along the way. I think what makes NetApp's innovations so unusual is that the company has remained laser focused on a strategy of



improving the way that computer system and enterprise systems and computer networks, however defined, move data and thereby improving the functionality of such systems. And obviously, over time that's changed. It's meant that technologies that were very important in the old client-server system be adapted to much more diffuse-- what we would now talk about as cloud based systems, but much more diffuse networks. And that's required lots of technological innovation. But these aren't technological innovations that have pushed the company to diversify.

So, you look at a lot of companies as successful as Network Appliance, or NetApp as we now call it, they tend towards diversification because new innovations come along, and well let's try this, and let's try that. So, on the one hand, NetApp has been very innovative. But on the other hand, it has kept its innovations focused on the business that it is good at, not just data storage, but the operation of data networks and the optimization of those networks. That's meant moving from network attached storage, which was the early definition of NetApp, into storage area networks and other kinds of hybrid networks that really combine a variety of technologies, a tremendous amount of technological innovation caught up in that. All of it boiled down, however, to moving data through networks. And they've never taken their eye off the ball when it comes to their strategy.

**Hancock:** Thank you. That singular focus, as you say, has created momentum forward. To what extent do you think that it has made the difference, if it has, that its DNA has been part of the Valley, and its growth has been part and parcel of the Valley's both ups and downs. What's the connection, in other words, between NetApp and Silicon Valley?

**Barnett:** Well, of course, NetApp is connected to Silicon Valley at two different levels. It's connected at the level of people. So, people have come into NetApp. They leave NetApp at times, often starting and running their own businesses. It's such a great place to work that people tend to come here and then not leave. But nonetheless, there is a movement of people in and out of NetApp. And that links it to other companies.

And then at the level of companies, of course, NetApp themselves have partners. And because they're now so large and successful are often there on the radar screen at the likes of an Oracle World or even going beyond the Valley, more broadly, being visible to technology giants like IBM, Siemens, Fujitsu, and so forth. So, you have a relationship between NetApp and other companies. And within the Valley, those relationships often lead to joint ventures and other kinds of collaborations that help the technology of one firm do something with the technology of another firm. And what's so interesting here is that when you look at companies that are in this sense part of a larger ecosystem of people and organizations, it's easy for them to get caught up in the fads and fashions that come and go.

And that's where NetApp has played an important leadership role because, instead of being caught up in fads and fashions, NetApp has tended to resist what look like short term trends, and instead, has tried to work towards longer term results.

I often point to NetApp as an example when people are concerned about the effects that being a publicly held company can have on leadership. And of course, in the last few years, we've seen a number of very high profile publicly held companies go private in an attempt to, in a sense, get away from the kind of pressures that are faced on a day to day basis. And of course, every leadership team in a publicly held company is under understandable pressures to make the numbers. And their shareholders want them to do that.

But one thing I'll say for NetApp, and it's not only NetApp, but I think they're a great example of it, is that they and their partner organizations have often had to resist the temptation of jumping on a fad or fashion, even when that might hurt a little bit at the margin in terms of the share price. But that's a long-term successful strategy, because something that feels good in the coming quarter, still has to be delivered on in the coming year or two years or five years. And if you approach more soberly the fads and fashions that you see in technology, then it's possible for leadership to take a guiding role, not only with respect to the investment community, but with respect to their technology partners. And NetApp has definitely played that role. And we've seen a lot of companies come and go over the years. And NetApp remains because of that kind of consistent leadership.

**Hancock:** Thank you. You've raised the topic of the ecosystem of Silicon Valley, and this question of sustainability, what enables some places, companies or places, to remain over time. So, as you look at the Valley, as an expert on sort of growth and innovation over time, what do you think some of the strengths that will carry it forward, and perhaps some current vulnerabilities that might make this place at risk?

**Barnett:** Of course, everyone knows that what makes the Silicon Valley and more generally technology interesting is the growth and vitality, the change that seems to be part of the DNA of a place like this. We normally talk about the positive side of that growth. The firm that everybody wants to go work for that just got bigger, or the NetApps who've come along and created so much value and are great places to work. What's often not so visible are all the failures that were crucial along the way. One of the distinctive characteristics of Silicon Valley is the high failure rate here. It's a beautiful thing to be in a place where firms fail, but people go on. And of course, there's a lot of upheaval involved in that. I, myself, went back to college only because of a being laid off from a company once upon a time. And I know how traumatic that can be. But as long as there's growth on the other end of the failure process, we know that vitality and new wealth generation takes place. And NetApp has been part of an ecosystem where failure is happening all around it.

It may be surprising to hear me bring up failure as crucial to growth and innovation and vitality when talking about a company that has been around now for decades. Well, one of the things about this company is it's a company within which failure can happen. It's not that anybody wants to fail. Of course, we all want to succeed. But we also understand that a normal part of the innovative process is that things won't work out. There tends to be a tremendous focus on bottom line results in most organizations. But

what about well-intended actions that lead to a failure? Can that person live to experiment yet another day? And in healthy cultures and certainly in the NetApp culture, they can. And so, results matter. Merit ultimately has to pay off. But the process of getting to a payoff requires failures along the way. Some organizations build that in to the processes of the organization, to their incentive systems, to their culture, to their human resource management systems and so forth. Other organizations create an atmosphere of fear where, if anything goes wrong, the person is worried that their career is at stake.

And it's ironic because companies like that, precisely because people fear failure, are less innovative because then people become more conservative. They only do the things that are the obvious things. And that takes away the vitality. Companies like that are short lived, because they don't make the innovative changes. Failure still comes. But it comes then at the level of the company instead of the level of the project or the experiment. And so, one of the things NetApp and other great firms in the Valley have taught us is that failure is part of the process of learning and innovation.

**Hancock:** Home run, is there anything else that you would like to add in terms of NetApp's legacy for the Valley, or just NetApp's legacy in general, any other lessons, anything that you'd like to add?

**Barnett:** I think it's worth saying that NetApp has done a great job of moving from the period of leadership under Warmenhoven and Mendoza to the current period of leadership under Tom Georgens and his team. And not all organizations make that transition. And I think it's fair to say that, while the company continues to grow and expand in geography and in product space, and in many ways looks very different from the company that is described in many of the case studies that I've written, that it retains in its DNA that culture and that leadership approach that I think will take it forward into the decades to come.

**Hancock:** Thank you very much, Bill.

**Barnett:** Well, thank you, Marguerite.

**Hancock:** Always a pleasure.

END OF INTERVIEW