# THE WALL STREET TRANSCRIPT Questioning Market Leaders For Long Term Investors

## Mercury Computer Systems, Inc. (MRCY)



JAMES R. BERTELLI is Chairman, President and Chief Executive Officer of Mercury Computers Systems, Inc., and a co-Founder of the company in 1981. Prior to founding Mercury, Mr. Bertelli served Analogic Corporation in sales management positions, where he developed the awareness of a market need for specialized, high-performance attached processors, which led to the launching of Mercury Computer Systems. Before Analogic, Mr. Bertelli served as a marketing manager for Digital Equipment Corporation's telephone industry products group. After a tour of duty in the Army Signal Corps, he launched his high-tech career with RCA as a system analyst, and later moved into sales. Mr. Bertelli earned an Electrical Engineering degree from Northeastern University. He received the Ernst & Young Entrepreneur Of The Year Award for New England in the technology manufacturing/hardware category in June 2002.

TWST: Please begin with a brief historical sketch of the company and a picture of the things you're doing at the present time.

Mr. Bertelli: I am the CEO and Founder of the company. We actually started back in 1983 and started shipping product in the 1984/1985 timeframe. The company has always been focused on high-performance computing, able to provide typically unmatched floating-point performance for real-time applications in a number of markets. In the defense market, this might be for high-end radar systems, for example, or for signals intelligence. In the life sciences market, our solutions are used in medical diagnostic imaging systems such as CT (computed tomography), MRI (magnetic resonance imaging), PET (positron emission tomography), digital angiography, etc. And we are now also moving into 3D imaging and visualization for hospital radiology work. In the semiconductor business, we enable our customers to achieve higher levels of quality in the manufacturing process as they inspect the wafers, find defects, improve the manufacturing process — it all requires a tremendous amount of compute power. These three markets are currently the major generators of revenue for us. They have been for a number of years, and I suspect they will continue to be our main markets for some time, although we certainly are uncovering new opportunities, primarily as a result of new technology.

One of the things you see, if you look at the history of our business, is that whenever there is what I'd call a major inflection point — in

terms of new, available technology that better enables applications to be computerized — there are always certain requirements in terms of power consumption and packaging and economic constraints that accompany any application. So within a couple of years of these inflection points, Mercury has, in the past, experienced rapid growth. It takes a couple of years because in the OEM business, there is a time lapse between when you get a design win, when a customer starts to incorporate it in their products, and when they deliver it to the marketplace. This is true whether it is a commercial customer or a defense contractor.

So we are looking now at future growth based in part upon the IBM Cell BE Processor, which we were able to deliver in prototype systems over the last several months to customers in both the defense and commercial markets. We would expect that a number of these will find their way into the next generation products that our customers will deliver. These systems represent a technological breakthrough, we believe, in terms of putting multicomputer systems together that are meeting and exceeding performance requirements within constraints that for us are typical — constraints like cost, weight, size and power consumption.

TWST: Would you explain what this new technology that you've been developing in connection with IBM is all about?

Mr. Bertelli: I referred to it as an inflection point — or, in other words, a leapfrog technology. IBM's Cell BE processor puts a

tremendous amount of processing capability into a very small package. So you can think of it as taking nine processors and putting them all on one piece of silicon. This kind of processing power packed into a small package, with relatively modest power requirements, and at this price — well, I can tell you that great things are possible. We are currently working on applications with customers that we expect to yield order-of-magnitude performance improvements. In fact, one particular application may result in a 100 times speed-up when Mercury's engineering team is finished.

Now, having said that, there are other processing elements that also provide increased performance for many of our customers' applications. Mercury's systems are typically made up of multiple processing elements (the IBM Cell BE Processor is just one that we have invested in). In fact, depending upon the application, there are a number of other technologies that either complement the Cell or, in some cases, are better than the Cell. So, we have also invested in bringing products to market based upon FPGAs, or Field Programmable Gate Arrays, from Xilinx, another Mercury partner. Other applications are more amenable to using GPUs, or Graphic Processing Units, and we have brought products to market that use these processing elements from our partner NVIDIA. Pulling these diverse compute elements into one system is often required to solve customer problems; we call this a heterogeneous architecture.

The way these systems are used, of course, varies depending upon the industry. For example, the life sciences business and medical diagnostic imaging are in transition, going from the 2D imaging to 3D. In a three-dimensional world, the radiologist can identify problem areas with more accuracy and can evaluate a larger number of images, making doubly sure that they don't miss anything. Today's diagnostic imaging systems are spewing out thousands of images when we go in for a scan, and it is very difficult for the radiologist to assemble all these slices in their head, so leveraging available compute power to enable 3D technology helps them tremendously in that respect.

#### TWST: When will this 3D technology be in place?

Mr. Bertelli: We have started to ship product and we have signed on several new customers. But it is really just starting — it takes a while for an industry to adopt a new technology such as this, but it's coming. Hospitals have cycles that they go through in terms of capital expenditure, so if they recently bought an older system or what was current at the time, it may be a few years before they are able to upgrade their equipment; also, they don't all do it at once, so it's a ramp-up.

## $\label{twst:twst:} \textbf{TWST: Are there other forthcoming products on your agenda?}$

Mr. Bertelli: Absolutely. Mercury has typically invested heavily in R&D, and we are always on the lookout for technology from other companies that we can incorporate into our customer solutions. As a result we have a lot going on. For example, we have closed on several acquisitions in the last couple of years. And one of them, the TGS Group in Bordeaux, France, took us more aggressively into this area called 3D visualization. So we are making real progress driving market adoption, not just in life sciences, but also in the energy field, in partner projects at a number of universities, and elsewhere.

TWST: And you've also been working on acquiring Echotek?

Mr. Bertelli: Yes, we acquired Echotek, in August 2005. Echotek provides the data conversion, what we think of as the front end to a processing chain, which, so far, we have found to be valuable to applications both in defense signal processing, and also in medical diagnostic imaging. These products aid in the conversion of analog signals to digital signals. Doing this well, as the Echotek products do, can have a tremendous impact on image quality and throughput time. So we are really starting to see opportunities where we are able to take the Echotek products into our customers' applications and increase our portion of the customer solution. In addition, Echotek's customer base is proving to be fertile ground for Mercury's traditional products.

# TWST: What have been the principal drivers of your success? What are your competitive advantages and what is the competitive landscape like?

Mr. Bertelli: In more than 20 years running Mercury, I have seen it all. We have competed with small companies, large companies, and quite often with make-versus-buy decisions. And we have prevailed because our business model has allowed us to be a real engineering partner to our customers, really an extension of their own engineering team in many respects. As of late, we are indeed seeing more competition. I attribute this to the attractiveness of our traditional markets as they continue to grow, as well as the fact that we, ourselves, are growing into additional markets. For example, the fact that we are now competing for 3D visualization software business has put us up against companies like Vital Images; companies that we had not seen in the past.

## TWST: Is your R&D based on the customer needs directly at all times?

Mr. Bertelli: No, but it certainly takes customers' needs into account. We spend a good deal of time talking with customers to understand their current and future requirements, and then we spend a lot of time understanding where the industry is going. In general, we have pretty sophisticated relationships with the various suppliers of silicon like IBM, Intel, Texas Instruments, Xilinx, NVIDIA and so forth. So our R&D team has a great understanding of where they are going with their technologies so that we can, in some cases, influence the design, and in other cases, certainly get a jump on customer solutions. I think there is a quote from Wayne Gretzky about skating to where the puck will be — not where the puck currently is. That's the difference between a good and a great player. We certainly believe in this approach.

#### TWST: Would you discuss the direction in which the semiconductor industry is going?

Mr. Bertelli: We certainly don't purport to be a specialist in what the semiconductor industry itself is doing, although we obviously have a vested interest. Not only are we partnered with many of the silicon providers, we continue to bring on more customers from the industry. So, from that perspective, we are seeing changes. Everything continues to get smaller and, recently, more complex. Many of the silicon suppliers are introducing what are called multicore processors. In fact, IBM's Cell BE processor is one of the most exciting of these. The idea of having many processing units on one piece of silicon results in two interesting things for Mercury. One, these processors are sometimes tricky to program, and customers value our tools and approaches for making it easier. And two,

chip manufacturing gets trickier and in some cases demands more compute power, so we are seeing customer interest from more and more players in the semiconductor business. For example, the EDA software firms are helping foundries simulate wafer design in software by running some of their applications on very large clusters. We believe that our Cell-based system is a very competitive substitute for these cluster solutions, and we think that's going to open up significant new opportunity for us.

#### TWST: What about challenges or problems? What might you worry about over the next few years?

**Mr. Bertelli:** The biggest worry that I have right now has to do with where the defense dollars are going. About 50% plus of our revenues comes out of the defense industry, and while there's certainly a tremendous amount of money that's being spent, spending on advanced technologies seems to have suffered somewhat. We are not in the part of the defense supply chain that deals with armaments, guns, and butter and bullets and so forth. But I believe that in the long run, when you think about next-generation warfare and how it's going to be conducted, there's going to be more of a focus on the warfighter. What I mean by that is the individual soldier needs more real-time information. They will be equipped with the sensors required to gather data and the computers required to make sense of it. So I believe there are going to be a lot of opportunities for us in that space. It's just that it takes a while to evolve, it doesn't happen overnight. So in the meantime, we are more aggressively competing for business, expanding into adjacent markets, and improving our overall operational effectiveness.

#### TWST: In a broad way, what would you reasonably expect the company to look like in about three years and what might be some milestones along the way for investors to be looking for?

Mr. Bertelli: When I look back at the way Mercury has grown, I see that revenues have run somewhat flat for two, three, four years. Then we reach an inflection point, as I mentioned earlier, and we grow for two or three, four years significantly. We may see some sort of plateau again for a couple of years, and then go into another growth phase. The way I look at this, is that these inflection points are all driven by some underlying technology. So I look back at it and I see where back in the early 1990s we introduced a product based upon the Intel 860 and that fueled our growth a couple of years. We increased from \$50 million to \$100 million and then we introduced a technology that we developed — a silicon technology called a crossbar so that we could build a multicomputer out of many processors. And then sure enough, a couple of years later, our revenues took off, we got up over \$150 million. Then it was the PowerPC that has been the mainstay processing element. So here we are now, sitting right around the \$250 million mark for the last two years, looking at some of this new technology based upon the Cell BE processor, FPGAs, and 3D visualization software. So I believe we are staring right at our next inflection point, with a big growth spurt coming.

#### TWST: Is there anything that you would like to add on the subject of your corporate strategy as you look out over the next few years?

**Mr. Bertelli:** First and foremost, the strategy has to be flexible to continue to deliver solutions that our customers know and love and appreciate. Doing this successfully in today's environment requires us to be

disciplined on several fronts. One, we need to pick the right customers. For more than 20 years Mercury has maintained strong margins because we focus on niche markets that are on the boundaries of the mainstream technology market. We will continue this strategy. Two, we need to maintain a solutions focus. This means that we offer a diverse range of hardware, software, and professional services. Many of our customers still look at us as an extension of their engineering team, so we must remain as flexible as they are in our approach. Offering more and more elements of the solution allows us to take on more and more of our customers' burdens. Three, we need to retain and attract a motivated and enthusiastic work force. We are fortunate to operate throughout the world in talent-rich locations that attract the best and brightest in no small part, because we solve really interesting and challenging problems. Lastly, we have to remain flexible and nimble, both in terms of the technologies we provide, as well as the markets we pursue. Technology certainly changes at a rapid pace, and we need to monitor what is available, leveraging partnerships and acquisitions to ensure that we have the right elements for building solutions. And new markets are developing which are enabled by our abilities to deliver unprecedented computational solutions. We are bringing synthetic vision into the defense and general aviation industry and into other commercial markets, such as oil and gas. If our defense business remains a slow grower in the near term, we will compensate by expanding into other non-defense markets.

## TWST: Would you tell us about the backgrounds and the expertise of yourself and a couple of your key colleagues?

**Mr. Bertelli:** I have spent the last 25 years or so of my life building Mercury. Most of my background is right here. Prior to that, I did work for some large computer companies, Sperry Univac and Digital, but clearly my life has been focused on Mercury.

## TWST: What inspired you to take such a big step at a young age?

Mr. Bertelli: Actually, it wasn't such a young age. I think I was 41, 42. But in any case, what inspired me was that we saw the opportunity to solve these problems where there wasn't enough compute power being delivered by companies serving larger markets for a number of applications, whether it was in the defense world, or in seismic exploration, or in medical imaging. So it just seemed like a great opportunity, because I didn't think the big guys were going to focus on these niche markets. A niche market to me is something that is under probably a couple of hundred million dollars in available business. So we saw that this was an opportunity for us to grow a business with a relatively small amount of investment; I think we had a total of about \$4.7 million of equity invested in Mercury when we went public in 1998.

#### TWST: Would you tell us about a couple of your key colleagues?

Mr. Bertelli: I have several key colleagues. My co-Founder, Bob Frisch, is sort of the genius behind a lot of the architectural work that we did early on, and he continues to play a major role here. But over the years, we've built a staff of people who understand the business from the standpoint of both technology and customers. Didier Thibaud has been with me since the early 1990s as has Mark Skalabrin. Barry Isenstein was employee number seven; I think he joined me in 1984. So

we've got a solid staff that has been around the markets that we deal in, with significantly great knowledge of what the requirements are.

## TWST: I understand that you have a highly developed corporate culture, rather an extraordinary one. Would you tell us about it?

Mr. Bertelli: I don't know that I would call it extraordinary. Companies develop cultures that are obviously somewhat of an extension of the people who are there. So after more than 20 years, I'm sure that I have had at least some influence on the culture. So I would characterize it as somewhat entrepreneurial and open minded. We certainly don't have a lock on all of the best brains, and our culture is one of the reasons why we were able to close some acquisitions and form alliances like we have with IBM. But another important element is the passion that so many of us have for solving challenging problems and helping customers solve their problems. We have current engagements with customers where we are delivering some of the most powerful computing systems ever built. So when you are able to tackle problems like that and understand how to architect the solution using the most optimal processing element, that is what gets people's juices flowing and gets them to come to work in the morning. It makes life fun.

#### TWST: Do you see any need to improve the company's capital structure?

Mr. Bertelli: We are pretty happy with our current capital structure. Over the years we have generated quite a lot of cash; we completed a convertible debt offering a couple of years back and we are pretty satisfied with our acquisition activity to date. So our top priority is returning the company to growth so that we can again be generating attractive returns for shareholders.

# TWST: What about your relations with the investment community? Do you feel that they understand the company as well as you would like them to?

Mr. Bertelli: We are not an easy company to understand. We are in a number of different industries, selling a number of different technologies and products. I think some of the analysts look at us as being a defense stock, while others think of us more as a hardware company. In my mind, neither view is really right. What we really are is a technology company that maintains high margins by focusing on customer technology problems that remain outside the mainstream IT world. So when analysts are looking for comps, it's not easy for them to find a comparable company even in what we call the competition, as they don't deal in all the markets. Mercury does not have an easy story to get across, and I've certainly got to do a better job of that.

#### TWST: What would be the two or three best reasons for the long-term investor to take a very close look at Mercury Computer Systems?

Mr. Bertelli: I have never really wanted to be a pitchman for Mercury's stock, but I will tell you what I think. First of all, the stock is very cheap right now. We projected a big growth year last year, and we missed. We just didn't see the future exactly right. As a result, our share price has been pushed down farther on this growth plateau than I can re-

member. Second, as I mentioned earlier, my team has a track record for slogging through growth plateaus in the past, and it seems to me that we are staring at our next inflection point right now. And last, I will point out that we are just now in the early stages of realizing the synergies we anticipated from our acquisition activities and alliances. To date, Mercury has been sort of a "one customer at a time" kind of company. This is evidenced by our high percentage of revenues that come from a relatively short list of customers. Our acquisitions and alliances are putting us in front of more customers today than ever before. And in the words of one of our sales leaders, "when Mercury gets in front of customers, good things happen."

#### TWST: You mentioned factors that you didn't see. What was that?

Mr. Bertelli: We certainly didn't accurately predict what happened with the defense budget. There was somewhere between \$40 million and \$50 million in fiscal 2006 business from programs that we had expected, based upon our forecasting, and then they got cut or pushed out. So that hurt. And frankly, we were too aggressive forecasting revenue synergies that we expected to see from acquisitions. Many of our customers are OEMs, and 18 to 24 months is not unrealistic for products to start to ramp up. But the fact that we didn't see these synergies last year doesn't mean we won't see them. We got some great products in our R&D pipeline as a result of the acquisitions that we have made.

## TWST: Is there anything that you would like to add, particularly regarding strategies, opportunities, and long-term objectives?

Mr. Bertelli: My long-term objective is to keep this company an exciting place for people to come to work, to create products that the customers love and that solve tough problems. I personally come to work feeling good that we are helping to save lives as a result of the work that we are doing in life sciences; that we are making the world safer with our defense products; that we are improving productivity for semiconductor makers around the world. Many of our people feel the same way that I do about that, and I hope they always do.

TWST: Thank you.

#### **JAMES R. BERTELLI**

Chairman, President & CEO
Mercury Computer Systems, Inc.
199 Riverneck Road
Chelmsford, MA 01824
(978) 256-1300
(978) 256-3599 – FAX
www.mc.com