

TECHONOMY

TECHONOMY 2012 • NOVEMBER 11 – 13 • TUCSON, AZ

Intelligence, Leadership, and Command

Speaker:

Joseph Tucci, EMC

Interviewer:

David Kirkpatrick, Techonomy

Video:

<http://techonomy.com/2012/11/emcs-joseph-tucci-at-techonomy-2012-intelligence-leadership-and-command-joseph-tucci>

Kirkpatrick: Next, I want to bring Joe Tucci on stage, who is one of the world's great business leaders. One of the most effective business leaders.

Once he gets up here, I will give you a piece of data that I find really impressive that underscores just how effective he has been during the time he's been at EMC.

So now, Joe, thank you for being here.

In 2002, EMC had revenues of about \$5 billion dollars. This year it's estimated to have revenues of \$22 billion. Acquisitions have been critical during that time. However, the revenue of all the companies at the time of acquisition did not total more than 2 and a half billion dollars.

So he has added a tremendous amount of value at that company, and also shifted it from what was once an exclusive focus on high-end storage platforms to a much more broad-ranging company that has a lot of software operations. Many of you heard some interesting stuff from the Greenplum subsidiary yesterday afternoon.

We've talked so much about data here, and you have put yourself and EMC in an extraordinary position at a time when data is universally acknowledged to be one of the most central things happening. Which last week's presidential—was it this last week, last week? Whatever last week's presidential election underscored tremendously.

So I guess the first question I would ask you, Joe, is how much is this data analytics thing going to change the world from the standpoint—from your view as leading one of the main companies that's been enabling it? And is there any industry that will be exempt from the transformation?

Tucci: First I'd start, David, you know you used the word *will*, and I use the word *is* changing the world. Certainly you just heard about cancer, the decoding of the human genome. That was a big data problem, and that happened several years ago.

But to answer your question specifically, I absolutely believe, firmly believe, that every single industry will be totally revolutionized by big data.

Kirkpatrick: Okay. Now, do most of those industries realize that yet?

Tucci: I—I'd say a fair amount do.

Kirkpatrick: I mean, you spend a lot of time with the biggest CEOs. Do they get it?

Tucci: I think they do.

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Kirkpatrick: I don't think they do. Okay.

Tucci: We love bashing CEOs.

Kirkpatrick: I don't love bashing CEOs at all, but I continue to believe that most CEOs do not appreciate the pace at which this mobile revolution, cloud computing is transforming these businesses. I think they're not alert enough to some of those realities.

Tucci: Most CEOs think in terms of what are my key lasting assets.

First and—first you have a brand, right? Brand is incredibly valuable and it lasts beyond any CEO terms in many cases for well over 100 years.

Second, you have your people. Now, people is not an accounting asset, but people—any CEO knows people are their greatest asset.

The way you get those people to work together is you have a whole set of processes that support your business. And those processes are kind of enabled by applications.

So I would say your processes and your application is a lasting asset. And then your information is a lasting asset.

So any good CEO knows that they've got to make sure they protect all four of those assets and utilize them to the benefit of their business.

Kirkpatrick: Well, I'm glad you're confident of that.

I mean, I think you're right.

Tucci: We'll agree to disagree.

Kirkpatrick: I think it's impossible to generalize about CEOs, to some extent, I suppose, anyway.

Talking about you, who is inarguably a great CEO. You know, when you were approaching the decision about whether to buy VMware, which is one of the most important things you did, and you later spun a lot of it out, what was in your mind? That was such a fundamental shift for your company. How did you go about that? Is there any lesson for CEOs, in general, or leaders that you've sort of taken away from having made some pretty big gambles that have paid off for EMC, especially with acquisitions?

Tucci: Like you say, one of the things—when I started as CEO back in 2002, my first year, full year, we were basically a leader in high-end storage, period. And that is not a good base—that's not, you know, a strong enough foundation for a company. Because if you can attack that one thing that we did well, you could really hurt the company, so you want to broaden your base. And then it's hard to—so basically we went from high-end storage to mid-tier storage to low-end storage. Basically if you're storing information, you want to protect that information and make sure it's always available. You want to make sure that information is secure, that brought us into security. And then, of course, you want to get intelligence from that information, and that brought us into predictive analytics.

And then we realized there's going to be a whole new way of processing in the data centers. That's what led us to virtualization. People ask me did I see everything about the cloud and IT as a service? Absolutely not. I did not see that at all. I only saw two things, and the two things we saw, we got right.

Number one, servers at that time were about 7 percent utilized on whole, and they were single core. We knew multicore was coming and it was going to get worse. That would give us a great market, virtualizing servers, and give us a great leg to stand on.

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The second thing we recognize is that EMC only did network storage. Therefore, there was a tremendous amount of storage that was stuck isolated in servers. And, of course, VMware collected that. And basically by taking one server, making it look like, say, ten servers, you take the storage out of the boxes and it's storage we could get at.

So we were increasing our TAM for storage, those were two things we saw. Definitely right. And, of course, the storage got a lot better.

Kirkpatrick: As you've broadened what EMC does, who do you think of as your main competitors at this point?

Tucci: Depends where you are in the business. If you look at our security business, it would be different than if you looked at our high-end storage business, than our mid-tier storage business, than our analytics business. Depends where we are. But we have no shortage of competitors.

Kirkpatrick: Any other players in the industry you would call out as doing a particularly great job of repositioning themselves or any that might be doing a particularly poor job?

Tucci: Well, I'm not going to go on the poor side, but obviously, you know, what Amazon does is rather remarkable. We have a very different strategy.

Kirkpatrick: And they're not a customer, either, are they?

Tucci: No, they're not.

We have a very different strategy. But I think Oracle has broadened their platform. IBM has done a good job. I think we've done a good job. But we're not alone.

Kirkpatrick: You mentioned Oracle. How big a deal is cloud computing? Oracle is working hard to reposition itself in relationship to. I mean, is that as big as the data revolution in your view and is it also going to effectively alter every --

Tucci: Well, they're inextricably linked. To get the kind of pervasive intelligence out of data in realtime, predictively, we need a pervasive way. We need a new way and pervasive way of computing that, datacenter, architecture. That's where cloud comes in. They are inextricably linked.

We have a different strategy than Oracle. We are building our infrastructure horizontally. We are very close on standardization on our X86. We do a lot of virtualization that computes storage network security. You know, things like firewalls, load balancers. And then, of course, there's a vast amount of automation replacing management tools. And then you run all the apps on that same substrate.

Where Oracle is built more in a stack. We have a very different strategy. But, obviously, they've done a good job, too. I like our position. Don't get me wrong.

Kirkpatrick: Your position seems pretty darned good to me. But with data being so important, how can you not be—you've got so many elements of storing, protecting, thinking about, understanding data. That may be, I think quite brilliant.

But I want to get to some questions from the audience. But—well, one thing I wanted to ask you. You were about to leave as CEO, and you made a decision to stay. Tell me what was behind that.

Tucci: Well, the biggest thing behind that was the leaders in the company who have tremendous confidence to the future asked me if I would stay a little bit longer.

Kirkpatrick: What a nice position to be in.

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Tucci: I have say this to the board, in all due respect. The board had to want me to do that also, and they asked. But I would not have done it only for the board.

What I really did it for is the people of EMC who wanted me to stay around a couple more years. I'm having fun, and I think it's great to see this change. So it's just an honor.

Kirkpatrick: Well, it's true, a lot of the best CEOs have left just when things were about to turn downhill. So it's probably a good sign you're staying a few years. Think of that, that's always an interesting one.

Let's talk about the economy for a second. I know it's something—at your scale you have no choice but to think about. Where do you see the U.S. economy right now and the global economy? It's widely viewed as pretty precarious. Give us your big-picture view of what's happening right now.

Tucci: I'm really optimistic with one big caveat. I have never seen—we're a global company. We operate in 87 countries around the world. I've never seen a time where the rest of the world was looking to the U.S. for leadership, so I think it's all—

Kirkpatrick: Any more than right now. You think—

Tucci: Right now is the peak. They want the U.S. to be successful. They want leadership. And I truly believe right now if we if we address what is commonly called the "fiscal cliff" problems adequately, we will have a decent 2013 globally.

Kirkpatrick: Really? What are the changes that will happen?

Tucci: Well, I think it's impingent upon everyone listening and everybody in the room, every CEO, to put the pressure on congress to say we need a grand compromise. This is not a Democratic or Republican solution. We need to raise revenues. To that, the Democrats are right. And we need to balance the budget over time. We need to reign in spending. How we do that is going to be a compromise. It can't be all Democrat or Republican. They have to come together some place in the middle. Left of center, right of center I care not. But come together and care about the people of the United States, which is very important for the people of the world.

If we do that properly, I think 2013 will be better than people suspect. If we blow that, so to speak, to use a little prose, I think 2013 will be globally bad.

Kirkpatrick: How bad?

Tucci: We'll be in a recession. If you get a double dip, the second dip is likely to be worse.

Kirkpatrick: So for Europe, for example, you think if the U.S. could deal with our budgetary problems, that would possibly help them to continue to stumble along?

Tucci: I think Europe has harder problems than we do in the U.S., but they're doing their best. I think that the U.S. is solid, and the other super player, China, is solid. I think Europe will—obviously, I don't think it's going to be robust, but it will be okay.

But it needs, A, the two super economy players, U.S. and China, to cooperate and not fight. And it needs the U.S. to fix its fiscal problems.

Kirkpatrick: How involved are you right now in talking to our government leaders to --

Tucci: Well, that's one of the advantages of staying. I put in three great, kind of, five-star generals. You know, David Goulden is running the EMC core business, Pat Gelsinger is running VMware, and Paul Mercer is doing some new innovative things around our developers' platform and big data.

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So that frees me up a little more time to spend on issues like this.

Kirkpatrick: So you are spending personal time?

Tucci: I am spending personal time, personal commitment, and encouraging others, all of you.

This is our country. We've got to make sure that it's, "We the people, by the people, for the people." We need to make sure we live these words every day.

Kirkpatrick: And that's a "this week" challenge. This is happening in realtime right now.

Tucci: This is happening in realtime.

Kirkpatrick: What is your gut feeling of what's going to happen?

Tucci: I'm optimistic. It will be a pretty vengeful act not to come together. But the art is communications, and compromise is creating a win-win.

No one party can have everything they want. But I think this grand compromise is incredibly needed in this global economy and, of course, the U.S.

Kirkpatrick: I'm really glad to hear you talking about it like that.

You mentioned China. You have a big business in China?

Tucci: We do.

Kirkpatrick: You're on the board of advisors for the Shinwa Business School. You spend a lot of time there yourself.

How do you see the Chinese economy and how do you see U.S.-Chinese relations evolving with new leadership there, and Obama's re-election?

Tucci: The new leadership team in China—I've not met all of them, but some of them—is very bright, very experienced, very well educated. I think they understand this has got to be a win-win between them and the U.S. I believe they understand, like I said before, that the world needs Europe, and the rest of the world needs China and the U.S. to get along and do a bit of their own win-win grand compromise.

And the key to any relationship, right, is communications, frequent communications, open communications, putting yourself in the other person's shoes and trying to think it through.

This happens to every one of us in any kinds of personal relationships we've had. It's never your way. Because if you don't compromise a little bit, both parties, I don't think it's a healthy relationship. That's what has to happen.

But I do think the Chinese leaders realize that. If we approach it in the right way, we will be fine. As I said, I go back to what I said, the world needs us to get along.

Kirkpatrick: I sometimes wonder if they realize that more than we do, though?

Tucci: China?

Kirkpatrick: Yeah.

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Tucci: You have to separate a little bit of election rhetoric from reality. I have more confidence in our political leaders in Washington. They under the importance of China on the global stage. We'll see. Right?

Kirkpatrick: Well, yeah. Yes. Okay.

And the Chinese economy is slowing, but that doesn't frighten you?

Tucci: You know, to their—it's slow to a point. Some people think maybe it's a little more than that. Still, it's growing.

I think the lowest I've ever seen is almost 6 percent growth. So it's not a disaster. They have a surplus, not a deficit. They have tremendous people flowing into the middle class. So there's a lot China can do to create—continue to prosper and create growth. I'm sure they'll do that. Especially, with the growth leadership transition coming up at the end of the year.

Kirkpatrick: Does anybody have a comment or question for Joe? Here is a question.

Can we get a mic over here?

If it's about constructions and --

>> It's not about constructions. Thanks, David. Sam Stathis from Theometrics.

You mentioned China and the U.S. and the world looking for leadership.

What are your feelings about how Brazil is moving on with their infrastructure and their model to expand and economic growth?

Tucci: I think Brazil has done a great job, probably remarkable job over the last ten years. But, of course, Brazil slowed down, too. The world is dependent—we're in a global—this is a global economy, and it's never going back. You know, isolationist theories will not work any place. They won't work. They won't work in Brazil, they won't work in China. But I'm very, very high on Brazil. We're continuing to make investments in Brazil, and I like what I see a lot.

Kirkpatrick: Any other questions? Back in the back there? Identify yourself, please.

Tarkoff: Rob Tarkoff, CEO of Lithium Technologies.

Tucci: Rob, you've got to be easy on me.

Tarkoff: I'll go easy on you.

Kirkpatrick: Don't go easy on him.

Tarkoff: I'm a former executive acquired by EMC about ten years ago. I stayed there for about four years. I can say Joe knows how to build teams.

I have a question for you. We had a panel yesterday, and the panelists talked about the four horsemen; Google, Amazon, Facebook, and --

Kirkpatrick: Apple.

Tarkoff: Thank you.

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I'm curious to know, from your perspective, who is the most underestimated company in the mix that nobody is thinking about?

When I think about where EMC is, that's, obviously one option.

My second question for you is, when is VMware, if ever, going to get spun out entirely?

Tucci: I'll start at the end. Never.

I think—Rob, I think the best way to answer that is I really think whether everybody talks about cloud computing, they underestimate how big private cloud computing is going to be. There's going to be players that are going to emerge and really pop that. But, again, it's not going to be an all-private world. You can get criticality of mass pretty simply now, pretty easy now.

The key is to standardize, right? Today in our world in the traditional IT world, the application owns the infrastructure and you get all these silos; maybe one for your collaboration work, one for your ERP, one for your CRM, one for your building, et cetera, et cetera, et cetera. And you have to buy all of these stacks for peak of the day, peak of the year, and you're overprovisioning everything for that little bit of time you need it. Where cloud computing basically cuts this way.

And companies that move from different arc structures are standardized. The first thing any public cloud has done is standardized.

In my experience, they have all standardized on X86 architectures, not five different architectures.

They don't set up different infrastructures for their applications. They run their applications all on the same infrastructure.

So if we take those moves inside companies, they can get 90-plus percent of the benefits of cloud computing and the security and a lot of other things, control, that they get from private cloud.

Now, of course, I don't believe private clouds will support—you will see these hybrids. When these companies do get bursts, they are going to want it to work. There are activities which work very well with public clouds. And that will continue. So I think it's a world of both. I think you'll see some stars born from that era, or that ilk of technology companies.

Kirkpatrick: Since part of Rob's question was sort of corporate strategy and decision making, you know, you've got a very tight relationship with Cisco in recent years.

Tucci: We do.

Kirkpatrick: There's been some speculation recently that maybe it was shaky. How is that relationship going right now?

Tucci: Well, pointblank, Cisco is our closest and most strategic partner, and I believe we're going to have a long and prosperous relationship.

Obviously, as we basically follow our cloud view to build the public cloud, when an application works on a horizontal infrastructure, the application will speak to that infrastructure. We call it the software-defined datacenter. It will say: These are the service levels I need you to attain for me. These are the policies that must be adhered to. These are some cost metrics that I've got to be accountable to.

Basically it will take those three things—the service levels, your policies, your cost constraints—and it will combine them in a magic automation soup, and assign dynamically the amount of cores you need to run the application, the type of storage you need to run the application, and basically some of the networking functions.

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Now, down here, moving the actual data is a world where we're not going into. We're not going to buy a hardware, networking company or get into that later. There is a lot of software and a hardware later, too. That's where we're going to partner with Cisco.

So basically we think the future of the software-defined cloud datacenter needs to deal with not only compute, but storage, networking, security, and then a whole ancillary set of services like load balancers, firewalls, et cetera.

Kirkpatrick: So you anticipate working even closer and long-term with them as that continues to evolve?

Tucci: There is a tremendous amount—you look at all of them. There's 5,000 petabytes per day being put into the digital universe. 5,000. The only reason it's put there is people want to access it.

So you need—the communications requirements of tomorrow will be dramatic. So Cisco has a great opportunity to continue to grow and expand, and it's very complimentary to what we want to do.

Obviously getting into the network space with the acquisition of CrWare and VMware, I would be less than honest if I didn't say it put a little stress on the relationship. But, again, communications, win-win, the things you do in realtime to make a relationship work, we're applying here.

If we do that, we will come out even stronger. When you come through those periods, if you have good intent—and John is a 22-year personal friend. John Chambers—I think—I truly believe we'll be just fine.

Kirkpatrick: He used to report to you at Wine, right?

Tucci: A little bit, yeah.

Kirkpatrick: Any last questions?

Identify yourself.

McManus: Good morning, Mickey McManus from MAYA.

I think I just read we're making more than 10 billion microprocessors a year and on track in five years to have trillions of information devices. Sort of the rise of big sensor and the Internet of things.

How will that affect EMC or what opportunities are there this that space?

Tucci: It's amazing. I think right now if you look at smart devices, there are people here who know better than I do. Something around 2 and a half billion, I've read. And they are talking about by the end of this decade being 70 billion. Two and a half billion to 70 billion and almost everything—again, if you look at Rick's book, there are a lot of good hints of where this world is today and where it's going.

But you're going to see sensors built into almost everything. Certainly every electronic device, every electromechanical device or mechanical device and even things you wear. There's smart sneakers today. They have shirts and pants for high-performance athletes so that they're running, they get all this data collected about them to make them improve better. So it's going to be an amazing world.

If you think of 2 and a half billion sensors going to 70 billion, it's tremendous opportunity. That information needs to be stored, it needs to be protected, it needs to be secured. You can get value and make predictive decisions from that information.

So that's where we're headed, and then, of course, you want to do that in a cloud environment, public and private. That's our strategy.

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Kirkpatrick: Time for one more quick question.

Van Horn: My name is Matt Van Horn from Path.

You guys acquired Pivotal Labs --

Tucci: Yes, we did.

Van Horn: Earlier—earlier this year, and they have pioneered para programming and a lot of the agile process. I'm curious how that's worked into your company's overall process or if you're using Pivotal Tracker for your product development process, or how that acquisition has changed the culture of your company at all, if it has yet?

Tucci: I think Pivotal—I don't want to give a lot all away, because we're going to talk about this in the next couple months.

Pivotal was a fantastic acquisition. Pivotal has been working with this new world of the web developers.

So, again, being more—any company that's gotten to any degree of success, has a huge cadre of developers around their infrastructures and what they're doing. So this helps there. And we will be announcing some plans shortly, and you'll see it as incredibly—and we do use it internally as well as externally. It's one of the—I would say it's phenomenally successful and will be more so.

Kirkpatrick: So Pivotal will be pivotal.

Tucci: Pivotal will be pivotal.

Kirkpatrick: That's good.

Tucci: I love your bluntness, your big-picture view, and I love that EMC and Techonomy are pretty close aligned. Thanks so much, David. Thank for inviting. Have a great conference.

Kirkpatrick: He is one of the greats. Now, we're going to have a break until I say probably—can I say 10:25, Simone. 10:20. You've got to be back here then because the Tile Brothers are going to be on stage. You've got to see these guys. And you've got to hear what they have to say. So be here at 10:20.