

A View from China

Speaker:

Xiaoning Qi, CEO, C-Sky Microsystems

Interviewer:

Selina Wang, Reporter, Bloomberg News

(Transcription by [RA Fisher Ink](#))

Kampel: At this point, I want to invite Xiaoning Qi, the CEO of C-Sky Microsystems, up to the stage with Selina Wang from Bloomberg News.

Wang: Great. So Xiaoning, a big and growing focus of C-Sky is making chips for the Internet of Things. Now, this is a very competitive space that a lot of big industry players are getting into. So what segments specifically in IoT are you targeting and what advantage do you think you have?

Qi: So we mostly target the IoT market, which is a new one, and people moving to these areas, so we are finding out lots of new applications. Alibaba is a data company, so a CP or chip company working with a data company is a new thing. So we work together to build the fundamental infrastructure for the IoT market, CPU plus the OS. AliOS Things is OS we created together and can tune with our CPU so that we could build a strong edge device.

Wang: So thus far, the industry seems to be dominated by Arm design. So what is your path to widespread adoption, if it seems that Arm designs are going to become the industry standard?

Qi: That's right. So Arm is a great company. They have been doing very well in the mobile space and embedded space as well. They're also moving into the IoT market. So I believe, as SoftBank must predict, there will be 30 billion devices by 2020. So I believe there is a huge amount of opportunities for all the players. At the same time, when we work with Alibaba, a data company, we provide values beyond the silicon. It's not just a chip. It's services we can work together, because a data company knows a lot about the user scenarios, how the data is processed. There are lots of new business models coming out.

Wang: And do you think that C-Sky has specific advantages in the Chinese market?

Qi: Yes, absolutely. So we are closer to the users and we provide more services to our customers. At the same time, we know much better about the applications specifically for Chinese market.

Wang: And I want to get back to your relationship with Jack Ma. Now, you've known him for some 30 years, and C-Sky was actually Alibaba's first chip investment. So how did you get to know Jack Ma? How did that relationship develop?

Qi: So we go back to 1988, both of us were teaching at university. We also lived in the same dorm. So he was teaching English; I was teaching microelectronics. And we did a lot of interesting things together. For example, we started the English Corner and also the YMCA English Club. I was the chairman; he was the advising teacher. So we also started doing some business, like Hope Translation Company, and also started the effort to do the ChinaPages.com.

In 1995 I got the full scholarship from Stanford and I decided to leave. It was a very easy decision at that time. And as Jack joked, since then, I went on a wrong path for 20 years.

But we kept still talking to each other in the last 21 years, and we talked about the future of the technology world, the future of the web services and the businesses, and we believe in the future. Alibaba could benefit a lot from the hardware conversion with software, human beings, everything for the IoT market. So that's why we get together again and look at the future.

Wang: And prior to Jack Ma's investment, C-Sky was primarily a research institution. So how did he convince you to turn it into a commercial enterprise? What was his pitch to you?

Qi: So the company was established in 2001. It's mostly run like a university research institution. But it's good to accumulate technologies, things. And at the beginning of the IoT—the first year was 2014, we believe. So at that time, both of us, looking at the future, we thought it's a good direction to go.

If the company is to go into the market, to be successful, it needs to be market-oriented, and also needs to be international-oriented and also should be run as a real modern corporation that's not just a research institute. So that's why we're working together and he said, "You should be back to do this."

Wang: So you work with Alibaba on both cloud computing and edge computing. So can you give me more color on what that relationship looks like?

Qi: Sure. So we work together very seamlessly. The devices we have are used in the edge device. So edge devices mainly collect information, collect data. For example, the mBIoT market and also the surveillance, cameras, voice recognition, facial recognition, and all these are connected to the cloud. So the things we need to take care of is the security, so the edge device, channel, and the cloud. So by doing this, we are able to bring lots of data, small data, to the cloud so that we have a big data. Then we do the analytics. And at the same time, we can bring the powerful analytics algorithms in the cloud to the edge device. So there's a two-

way enhancement. In the near future, we could enhance our edge device as well. So by putting the GPUs and AI functionalities into the edge device, the edge device will be much more powerful.

Wang: And in addition to this kind of core underlying platform that you're helping to build, what other devices do you foresee your chips going into, in terms of Alibaba's future products? They have the Tmall Genie, which is a sort of Alibaba-based version of the Amazon Alexa, and they're working on a number of other IoT devices as well.

Qi: Yes. So the voice recognition Tmall Genie is one thing. We are working on the platforms for the voice recognition. And also, at the same time, we are working on the connectivity, the mBIoT, ZigBee, all these connectivity. Alibaba has the IoT Connectivity Consortium. They act as a platform. There are lots of customers, their customers, our customers get together and form an ecosystem so that if we have good chips, then it could be provided to all these customers and people we work together—software side, hardware side, and box companies and chip companies.

Wang: Jack Ma has very large ambitions in both cloud computing and artificial intelligence. He recently said the company would be spending \$15 billion dollars in R&D over the coming years.

Qi: Right.

Wang: What do you make of those ambitions? Is it enough to put it ahead of Baidu, which thus far is really the leader in AI in China?

Qi: Absolutely. So he's quite determined. This morning in the leadership workshop, we were talking about the leadership trades, and the one thing I chimed in was that we believe things will happen and we see. We're not seeing things and we believe. We believe things will happen, we create things.

So I was interviewed by the *New York Times* a couple of years ago about Jack Ma. How could it be possible for an English teacher to stage *the* biggest IPO in US history? I thought about persistence, working hard. Finally, I believe it was intentional belief—intention to believe things will happen and then create it, making it happen. For this effort, I would believe he will make it happen and then Alibaba will be strong in the technology as well.

Wang: Well, your theory has proved true thus far, but when we look at cloud computing, though Alibaba's cloud computing platform has grown dramatically, it's still far behind some of the big US leaders. So do you think that gap will close?

Qi: Yes, they are working very hard on this, and especially in China it dominates. Right now, Alibaba's cloud is the third in the world. Still, for the international market, as you mentioned, it still needs to grow. The U.S. market—I know with Alibaba Cloud, the U.S. president's working very hard. She's really working 24 hours a day. And they're also expanding to the Middle East and Europe as well.

Wang: So shifting gears back to the semiconductor industry, the Chinese government has stepped up its efforts to become the number one player in the world. I think they want to be the stated leader by 2030. So how far behind is China when it comes to building up its semiconductor industry?

Qi: So this is a very interesting question. I will say, short answer, it takes time. So last year, China consumed about 60 percent of the semiconductor worldwide, but only 7 percent of semiconductor chips were provided by local companies. So they would like to improve this capability to provide their own chips. Because one thing they were thinking is that if—right now, we use 90 percent of chips from Europe, from the U.S. One day, if they stop providing, what are they going to do? But from the U.S. side, it's also thinking, you know, right now you are using our chips, but if one day you can provide your own chips, what are we going to do?

So it's kind of fear on both sides. So it's a matter of trust, I think. If we trust each other, then we could grow things much faster. It's not a zero-sum game. If say after 15 years later China can provide, say 50 percent of chips domestically, U.S. companies or European companies can do much more advanced things. Semiconductor is becoming a commodity, like steel. So the more advanced countries, you know, smart people can create more business models, different things, designs using this semiconductor to create more applications.

Wang: And China has also played a big role in the overall consolidation in the semiconductor industry. But now with Donald Trump as president, we're seeing CFIUS tighten some of its policies. For instance, the deal for Lattice did not go through. So what impact do you think this tightening of acquisitions of U.S. semiconductor companies is going to have on China's efforts to become the leader, if any at all?

Qi: So I believe for a semiconductor to grow, M&A is one thing, but more important to grow organically via their talent, the applications, the chips, suit in the particular market. So M&A sometimes causes more trouble. Some big companies, after they purchase some competitors, the business went down. You can go back and look at the semiconductor history even in the United States. So it's one way to advance the technology but not the only one. So doing the market analysis and meet the market, do the research work, R&D step by step, things will become more natural.

Wang: So we have about two and a half minutes left. Does anyone have any questions for Xiaoning? Otherwise, we'll continue with more questions.

Josh Reynolds: I very much respect your point on trust on both sides would lead to more trade. You're so experienced. Do you have any pearls of wisdom to share on how you build that trust and what that really takes?

Qi: This is a very good question. So human beings need to trust each other so that getting more not just for one party but for both parties. Sunday afternoon, Mary Lou was talking about all the iPhones, all the phones, the software in China. And so this is one concern from the U.S.

side. But if you look at the Chinese side, China was looking at all the phones, the CPUs, all the chips are made in United States. If you understand that technically there is a backdoor, you can always kick into your chips and unlock your phones. So both sides are very concerned from each side. So I think an improved understanding of each other, talking to each other more, that will help.

Wang: Any other questions? There's only one minute left, but maybe very briefly—we just had a question about mutual trust. I think there's a lot of concerns among the international community about China-US relations and the potentiality for a trade war. What do you make of all of the developments of the past year? Is there anything that's concerning you about trying to run a global business based out of China?

Qi: So that was another question still, because we are mostly focused on the domestic market. We believe the IoT market is new we have lots of things, even for the domestic market, to focus on. So right now we are not expanding internationally.

Wang: So just thinking of focusing on China.

Qi: On the Chinese market.

Wang: We are just out of time. Well, thank you so much, Xiaoning. It was great to talk to you.

Qi: Thank you so much.