

Starting up all over again



Arista Networks CEO and president, Jayshree Ulla, recently touched down on Australian shores as a keynote speaker for the Software Defined Networking (SDN) Executive Summit that was held in Sydney.

Ulla has been recognised as one of the most influential people in the networking industry after clocking up more than 25 years in the field. ARN's **JULIA TALEVSKI** sat down with her to discuss her time in the industry, the intricacies of getting a startup company off the ground and what's next for Arista.

Julia Talevski (JT): How did you get started in the IT industry?

Arista's Jayshree Ulla (JU): I started my career in Silicon Valley's semiconductor engineering field working for AMD and Fairchild Semiconductor, but that didn't define me alone. Engineers are really passionate about technology, but they also deal with people and I enjoyed that as well. So I went on to do more product planning and customer-related functions and back in my time, networking in IT wasn't an education, it was an emerging field.

I got into the chip industry and then worked for a company, Ungermann-Bass, that competed with Cisco. It was doing about \$200 million and Cisco was a \$5 million company back then. Early networking pioneers like 3Com and Ungermann-Bass hardly exist now. They are part of some merger or acquisition. Back in the 1980s and 1990s it wasn't really clear that the internet would be fueled by TCP/IP, there were lots of other protocols, and Cisco's claim to fame was really being able to build up a platform

that could not only do IP, but that was multiprotocol, routing and bridging.

The networking industry is three decades old and I've been doing networking for three decades. My career has been greatly shaped by things I've been passionate about in networking. I had an opportunity to join Cisco, but I ended up joining a startup called Crescendo, which ended up being Cisco's first acquisition in 1993. All paths led to Cisco. When I started I thought I was only going to be there for two years. I was on a two-year contract but I ended up being there for 15 years. Cisco was just a phenomenal high-growth company. Today, it's a large branded company, but when I joined in 1993, people thought it was a food company, Cysco. We had a long way to go in educating the market.

JT: How did you end up spending 15 years there?

JU: I ended up spending 15 years at Cisco because it was such a fast-paced company, and I was not doing any-one job for a long time. When I joined it was doing less than \$1 billion in revenue. We had a t-shirt with an arrow saying 'the path to \$1 billion'. Cisco was primarily a routing company. The Catalyst switching line was born in my time and I remember the CEO at the time, John Morgridge, and John Chambers was the head of sales and marketing, both told me they would like to see switching become a \$1 billion business. I thought these guys are terribly aspirational because they haven't even got their routing business to \$1 billion and now they're talking about the switching business becoming \$1 billion. To their credit they were more visionary

than I was back then.

The Crescendo acquisition combined with other investments they made, turned into a \$12 billion business when I left. Even today, it's still the largest business for Cisco. I enjoyed Cisco, but when I asked myself, would I want to retire at Cisco? – which John always asked, I thought 'family you don't get to choose, jobs and companies I should get to choose, so do I want to retire at Cisco?' The answer was 'no', I think I want to live the Silicon Valley dream one more time. I didn't know where I wanted to go. In 2008, I took the summer off, looked at clean tech and a lot of different ideas. I ended up joining Arista and forming an alliance with a close friend and colleague, Andy Bechtolsheim, the founder of Sun Microsystems. He used to work for me at Cisco, so I've known him for 20 years.

JT: What are some of the important aspects to a startup business?

JU: Understanding your team and technology are very important ingredients in a startup. There were times when I thought 'what did I do? I left a billion-dollar power job to go to a start-up?' We were measuring our revenue in \$10,000 increments and, in fact, it was zero when I went there. In my first month, we acquired a customer called Lehman Brothers, and the very next month, they went under. It was ominous start to my career at Arista, but it also taught me how to really deal with adversity. Five years later, it's one of the fastest growing start-ups, acquiring a new customer every day since its inception. We're up to 2100 customers and we've installed a million ports. It's difficult to call us a start-up

anymore because once you start to exceed 500 employees, you're not considered one. We've established a name, not just in financials, but also Cloud networking, large scale Cloud, service providers, Web 2.0 and high performance computing, storage and virtualisation. Start-ups are tough work, only one in 100 succeed. The odds are stacked against you.

JT: What has worked for Arista?

JU: I think it's a great team, technology and good market opportunity, maybe a bit of good luck and timing too. People can sometimes produce a start-up and technology that's 10 years ahead of its time, so timing is critical. We really address the convergence of hardware and software disruption and also the customer buying disruption from the enterprise to Cloud in a way that no one else has. We're well known in the networking community because of our relentless focus and fast industry adoption in accepting

"IT'S DIFFICULT TO CALL US A START-UP ANYMORE BECAUSE ONCE YOU START TO EXCEED 500 EMPLOYEES, YOU'RE NOT CONSIDERED ONE"

our products and technology. We're really delivering a customer experience that wasn't possible before.

The core of it has been our EOS software. In our industry, people churn hardware every two to three years, people haven't churned software even every two to three decades, so there was some work to do there. It took us, coming in with a clean sheet of paper, and building a brand new operating system using modern software methodology, multi-processing, publish and subscribe, and state-oriented models because software has evolved just like hardware and it's time to rebuild the internet. We're trying to be the best in everything we do and hire the best talent and team. The quest to be the best has just begun and we're at an inflection point where there's much to be done in building an independent company in the next few years.

JT: What are some of the challenges in being a fairly new company and then trying to break into new regions like Australia?

JU: It's like being a startup within a startup. The way you do insertions like that is very thoughtfully, you just don't try to come and flood the market. What we really focused on in Australia was the high performance financial and media vertical with high-speed and high-performance transactions. We're beginning to look at Web 2.0, migration to Cloud and service providers. The Australian market is still in its very early stages and we've acquired several customers and many of them are global customers and some local customers too. We view Australia as a very promising continent for a lot of reasons. The culture is to adopt technology, be frank and courageous, it also takes risks on new technology.

JT: You've been in the industry for 30 years, how have you seen it evolve and change, and where do you see it heading?

JU: When I started in the industry, I always felt I was too young for the job, and was told that I didn't have enough grey hair. Now I have to hide my grey hair.

The networking industry has gone from

basic connectivity with Ethernet, or inter-connectivity with IP, to really how do you make things more programmable, and how do you make your applications more intelligent on the network. It's the era of programmable networking or what is being called software defined networking (SDN). Also, the concept of machines is changing. We used have physical servers, storage and everything is virtual now.

It means that you really have to think about mobility, not just across physical entities, but across workloads and that's a big change. You have to think of new applications like Big Data, and the impact that's having on how much data you're connecting to, how much is structured, unstructured and what's useful and useless, this becomes very relevant and the network can play a pivotal role. Network virtualisation, Big Data, high speed media, high frequency trading and dense compute is putting tremendous pressure on the network, not just to be a passive network, but to really transact high-performance applications wisely. When you look at our success in high frequency trading and applications, the network is no longer a cost centre, it's a profit centre.

The monopoly of large vendors is also being challenged because there's a new set of trends. Just like IBM did really well in the mainframe era and Cisco's done really well in enterprise and client server era. But today's era is more mobile, virtual, Cloud age, and Arista is a living example of that - we don't build our own enterprise network. We use Cloud for IP telephony, ERP, sales automation tools, we transact all of our applications on the Cloud. The world is looking for a new Cloud network, not just traditional enterprise network.

JT: What sets Arista apart from the other networking vendors in the market?

JU: We clearly build the best technology. We're good at just about every metric, three-times the density, power and five times the latency. But what really wins for us is our software. We not only save capex dollars, we can also save operational dollars. What's happening is all the networking staff are shrinking and no

"IT'S THE ERA OF PROGRAMMABLE NETWORKING OR WHAT IS BEING CALLED SOFTWARE DEFINED NETWORKING"

one is allowed to add more people, if you don't have more staff, but you want to do more things, there's only two ways. Make your technology work for you, or find outsourced partners. We made the technology work and I challenge you find a more modern operating system for networking, that is open, programmable and modular and self-healing than our OS. We're really revolutionising datacentres and the Cloud market with this kind of operating system, which took us nine years to build.

JT: What can we expect to see from Arista in the next few months?

JU: You can expect to see us evolve from being the market leader in low-latency, high performance computing applications to a much more diversified portfolio of solutions for Big Data, network virtualisation, high speed media applications and high performance computing. This is going to tax the interaction between applications, the network, and physical and virtual machines. You have to bring them all together and make them run fast. The evolution has already started to happen in the US, and we'll see more of that in Australia. We will be working with our best of breed offerings, but we also work with companies like VMware, Splunk, Aruba, F5, Palo Alto Networks and Riverbed. One plus one is far greater than two and through our programmable open APIs, we can interact with their functionalities. A company that tries to build it all themselves, traditionally fails because they can't do a good job of everything. ■