

Streamlined and nimble, FPGAs shape up

Speaking to **Moshe Gavriellov**, the new CEO of **Xilinx**, brings surprises. First of all, the Californian-looking 54-year old, reveals that although he was born in Israel he grew up in Hendon, north London. "I am a Spurs fan," he admitted, "I have a high threshold for pain." After graduating from the Institute of Technology (Technion), in Haifa, Israel with a bachelor's degree in electrical engineering and a masters in computer science, he stayed in Israel, joining National Semiconductor as a young engineer. Designing high-performance 32bit microprocessors "was a dream" he wistfully recalls, reminding me that this was in 1979. After six years, he moved to America as a microprocessor designer for Digital Equipment on the east coast. Then he joined the ASIC work with LSI Logic, working in various roles from engineering and management. He had a sojourn in England again with LSI, working in the Bracknell European headquarters. His route to the programmable logic world was via Cadence where he was general manager after the EDA company bought Verisity where he was CEO, in 2001.

He began 2008 with a new job as CEO of Xilinx, created what he calls a functional business, instead of several independent business units, shedding 250 jobs across marketing, IT and finance where roles were duplicated across business units.

He refers often to getting the company to be 'nimble', anticipating perhaps a tough fight ahead as programmable logic's target markets, consumer and automotive are hit

by the credit crunch and subsequent slow-down in consumer spending.

Now, there are three groups in Xilinx; the software and IP, known as the solutions group, the silicon group and a single marketing group to prioritise the market's need. The solutions group delivers and the silicon group implements the products, with the solutions



group, explains Gavriellov. "We revamped the portfolio and cancelled low ROI projects, moving resources to the critical 45/40nm generations." The company's Virtex-5 is already available at 65nm node and an announcement on the next-generation of 45/40nm technology is promised for the end of this fiscal year:

Looking at the figures, the company's \$1.8bn

revenue has stalled in recent years and with 20 per cent allocated for R&D, there is clearly a need to grow. The way to do this is to grow the markets using programmable logic. Seven years ago, Xilinx's majority interest was in telecomms, an unequivocal 80 per cent. Now it is 42 per cent, with military accounting for 15 per cent and the combined consumer and automotive sectors accounting for 17 per cent. Industrial, including test and measurement and industrial controls and ISM (industrial, scientific and medical) are also significant areas now for the company. Interestingly, Gavriellov describes automotive as an emerging technology for the company. It concentrates more on infotainment "rather than 'under the hood' - or as you would say, 'under the bonnet' electronics," he grins, reminding me that he is part Londoner under that north California tan.

He is eyeing up ASIC's and ASSP's \$130bn market which dwarfs FPGA's \$3.6bn and believes FPGA's programmability is the key to address new areas with technology. That is why Xilinx is concentrating on power and costs alongside the shrinking geometries.

He sees FPGA's role as to enable customers to get differentiated solutions for target markets based on programmable logic fabric. How the company does this is of no concern to the customer, believes Gavriellov. The customer experience is driven by tools, the breadth of IP and ease of getting the product to the market. "Even if the architecture is critically important, hiding it with software and interfaces is the right way to go." **ED**