

this idea.

Shroff, who serves as president and CEO, worked for at Intel and Daisy Systems for nine years before founding eInfochips. At Intel, he was one of the designers of the 80186 chip. Following that, he co-founded Daisy, a pioneer in the EDA industry. Shroff moved back to India in the late 1980s after Daisy went public.

Shroff launched eInfochips with just one engineer, operating initially out of his house. The company has largely been a bootstrapped operation, accepting only one small investment of about \$400,000 from Indian VC GVFL.

For the year ended March 31, 2005, eInfochips had approximately \$6.4 million in revenue. The company is currently booking and executing about \$1 million per month, with net profit running at about 25% to 27%.

eInfochips has two design centers in India. The larger of the two is in Ahmedabad, which has 250 employees, and the other is in Pune and has 60 people. The company has three sales offices in the U.S., one each in Santa Clara, Calif.; Austin, Tex.; and Boston, Mass.

eInfochips maintains 30 to 40 engineers in the U.S. who serve as the link between the customer and the design team. eInfochips considers these “product champions” essential to its business, as these engineers bridge the myriad gaps — communication, cultural, temporal and geographic — between the U.S.-based customer and the India-based design team. The product champions have typically worked with eInfochips in India for three to six years, so they know the organization, culture, resources and how to solve problems.

eInfochips’ suite of solutions and services, called ChipMaestro, provides customers with the necessary resources involved in all stages of the chip design cycle, ranging from SOC integration to verification to physical design. The company has thus far been associated with about 70 projects, and nearly 80% of its business is repeat customers. eInfochips’ customers include Qlogic, Broadcom, TI, Agere Systems and Samsung.

One area where eInfochips has differentiated itself is the verification space.

As the complexity of chips increases, so does the challenge of verification, which can easily consume 50% of the total design cycle time. When high-level verification languages such as Specman and Vera started gaining in popularity a few years ago, eInfochips had a number of employees trained in the methodology.

eInfochips also invested a lot of money in developing verification IP, which it now has for PCI, PCI Express, Gigabit Ethernet, SPI-4, SATA and others. Verisity/Cadence actually sells PCI Express verification IP originally developed by eInfochips — such as the eVC (e Verification Component) solutions for PCI, PCI Express and Ethernet — under an OEM agreement.

The other side of eInfochips’ business, product design services, combines the company’s expertise in ASIC/FPGA design, high-speed board development and firmware development to handle everything from concept definition to design and development of a fully tested and certified unit ready for volume manufacturing.

eInfochips basically serves as the systems integration provider, with a particular focus on the security and home consumer video applications markets. A typical customer might engage with eInfochips to integrate a video processor from TI with a codec from a third-party vendor, an ARM or PowerPC processor, and a standard operating system to produce a complete product design.

The company has a close relationship with TI. eInfochips has been a third-party network member for more than four years and is one of only two TI Certified Software Integrators.

eInfochips, which is growing at about 60% annually, has a number of plans for expansion in the near future. The company is growing its Ahmedabad design centre to 100,000 square feet, and the Pune facility to 50,000 square feet. The company also plans to have 475 engineers by the end of March 2006, and to ramp that up to 700 engineers over the next two years.

In terms of products and services, eInfochips will establish a physical design services practice, and will work toward gaining traction in the FPGA systems design arena. The company is also developing

---

## eInfochips

---

Over its 10-year life, India-based eInfochips has grown from a two-person design house to a 325-employee provider of ASIC design and verification services, embedded systems solutions and IP cores. On the chip design side, the company’s expertise ranges from specification to silicon, encompassing ASIC/SOC design and verification, physical layout and implementation, firmware development, DSP hardware and algorithms and board design. The electronic product engineering part of eInfochips’ business provides complete prototype electronic product development.

Pratul Shroff founded eInfochips in 1994, beginning operations in 1995. Toward the end of the 1990s, he saw an emerging opportunity for engineers in India who did not necessarily have semiconductor industry backgrounds, but who did have fundamental knowledge of electronics, to participate in the semiconductor design cycle. The company began scaling up in 2000 to pursue

reference designs for automotive and streaming media applications, and will offer ARM plus DSP product design solutions for consumer electronics applications.

eInfochips is competing with a couple of very large and established players in India, in particular Wipro. Other competitors include HCL and Sasken. eInfochips tries to differentiate itself in a couple of key ways. First, the company maintains a very strong customer focus, as evidenced by the product champions that remain at the customer's side throughout the engagement.

Another key aspect of eInfochips' strategy is to focus on niche areas and specific technology areas where the company can provide a lot of value. The Specman platform is one example, and the company is taking the same approach with SystemVerilog and Synopsys.

Tapan Joshi serves as eInfochips' VP of marketing. Over his 15-year career in the semiconductor and embedded systems industries, Joshi has held a variety of roles from design to application engineering and marketing at companies such as Sun Microsystems, LSI Logic, Infineon and Chips and Technologies.

Sudhir Naik, VP of international sales, spent 10 years at Indian electrical engineering firm Jyoti Limited. He subsequently joined a startup company in the area of industrial automation and power electronics.

Sribash Dey, VP of sales/North America, was previously VP of U.S. operations at Microland. Prior to that, he was president – sales for Net Brahma Technologies. He was also the regional director of HCL Technologies America, and was with HCL-Hewlett Packard between 1981 and 1994.

Upendra Patel is eInfochips' CTO.

Pranav Shah is VP of FPGA and systems engineering. Shah has held positions with companies such as Intel, iPolicy Networks, Cabletron and Juniper Networks.

Samir Shroff, director/ASIC Division, has worked in various technical and managerial positions for companies such as Broadcom, Silicon Spice (acquired by Broadcom), National Semiconductor and LSI Logic.

Manan Patel is the company's director/

Embedded and Software Application Divisions.

Niraj Patel serves as program director/offshore design centers.

Contact:  
eInfochips (India headquarters)  
11/A-B, Chandra Colony,  
Off C.G. Road, Ellisbridge,  
Ahmedabad 380 006

Tel: +91-79-2656 3705  
Fax: +91-79-2656 0722  
Web: www.einfochips.com.

eInfochips (U.S. Headquarters)  
4655 Old Ironsides Dr.  
Suite 385  
Santa Clara, CA 95054

Tel: 408 496-1882  
Fax: 801 650-1480.

---

---