

**Company overview:** An electronic product design services company offering Spec-to-Silicon-to-System services, all under one roof. The company has developed a unique combination of chip design and verification, board design and layout, firmware and middleware implementation, embedded software and application software expertise.

**Innovation:** eInfochips has come up with a reference design solution called Handheld Biometric Authentication Unit (HBA), a cutting-edge, intelligent, multi-configurable handheld security unit to provide proactive and reactive actions. The device has a built-in optical fingerprint scanner, smart card reader, 3 MP CMOS camera, keypad support, an LCD display and hard disk drive (HDD) for storing the database on the device.

## Impact of Innovation

**Internal:** Owing to the innovation, eInfochips was able to win a product development services contract from a leader in biometric physical access control systems. The customer has shown interest in licensing the HBA reference design for its next generation of products. eInfochips has demonstrated HBA to the Ministry of Defence for its access control systems requirements. The product has also enabled eInfochips to attract and retain its 730 engineers by providing them an exciting work environment. HBA has become a strong capability builder for eInfochips. Through the HBA, eInfochips has been able to venture into the new Biometrics vertical. The company has also been able to, for the first time, re-use its own previous reference-design based on Texas Instruments' DM6446 processor called the DVPB (DaVinciT Prototyping Board).

**External:** HBA, being scalable and portable, saves a lot of development effort for OEM/ODMs. They can get the reference design, which comes with the entire source code and documentation, and can build/integrate their own customised applications, using existing features, and achieving early time-to-market positions. Government bodies can use the HBA as a security and multi-level access control mechanism with fingerprint and smart

card recognition as well as face capturing features. Companies can secure their employees, assets and premises, control access to any area, reduce the risk of crime against the business, improve time management, monitor and manage the movement of visitors and staff on their premises in real-time from a PC. HBA has been found to be most useful for customers in segments such as Defense, airports, aircraft crews and travellers, parking lots of high-end residential localities, power houses, refineries, the IT-BPO sector for random checking of visitors/guests/staff, where security is an essential requirement in the organisation.

**Awards and Recognitions:** The HBA has been selected for the “Made for India” session at the VLSI 2009 conference in New Delhi.

**Customer speak:**

“I am impressed with elnfochips’ reference design solution that can help product companies like ours to take it to market within a short time. We are looking forward to working with elnfochips after achieving certain project milestones in the existing biometric product design engagement.”

**The Marketing and Business Development Manager, the Medical Business Unit, Texas Instruments, USA**

