

automation, event management, access control and supply chain automation.” Talking about challenges he added, “The key challenges facing a wider acceptance of RFID remains the lack of knowledge and understanding of the ROI. While the initial capital investment for an RFID solution is generally high, the ROI is achieved within months or a few years. Given the buzz surrounding RFID and NFC and its acceptance across the world, RFID is on the brink of becoming the technology of choice for all automation solutions.”

### New product trends

While growth in the RFID market will continue to be driven mainly by security and access control applications such as e-identification, and other government sponsored security projects such as passport security, and border crossing cards, growing penetration of RFID technology into other application areas in manufacturing, transport, animal tracking, aviation and commercial segments such as retail and textile is expected to secure the future of the RFID market. “RFID technology is an enabling technology for automatic identification based on radio waves that has greatly impacted the business world. As technology advances RFID is used for different applications such as retail, healthcare, personnel access, public transport, etc. while UHF based RFID is used in applications like vehicle access and control, warehouse and logistics management. RFID microwave frequency is used for traffic tool collection. Active RFID tags are used in animal tracking”, etc, said Jatin Desai, Product Engineer-Security Products, Matrix Comsec, Vadodara. RFID is the revolutionary

Technology having potential to change the face of the identification Market. Highlighting the requirements of an identification application for deployment of RFID Ganpat Shinde, M.D, Smart i Electronics Systems explained, RFID Deployment for given identification application needs Tags/Cards, Reader and Software (middleware & application). Selection of tags or cards Depends on applications, in simple term, it's divided into “tags” based applications which demands minimum on tag memory for Asset tracking and “card” based applications for Personnel identification which requires reasonable on card memory structured for multi-application capabilities along with processor. Asset tracking capabilities of RFID tags (UHF ,915 Mhz) have major applications in Logistics , Manufacturing ,Retail whereas Personnel identification capabilities of RFID cards ( HF,13.56 Mhz) has applications in Physical/Logical Access control , E-purse etc. New Products in RFID domain are getting evolved for above applications. Security market has identified many application products using RFID like Car Access Control , Critical Asset (laptop etc ) tracking , Door Access Control , logical access control in IT , Hand held

terminals for E-purse applications etc. Readers are designed to suit type of tag, frequency and Read range. Tags/ cards and Readers together form the Data Collection section of RFID implementation. Middleware and Business applications complete the remaining IT part of RFID deployment. Sahil Anand said, “RFID is increasingly being used as the solution of choice for parking automation, integrated IT asset and personnel tracking, retail stores and inventory management at warehouses. Rasilant Technologies, has helped event industry use RFID for security, automated information exchange, social media integration and advanced real time data analytics. RFID has come a long way from being just a tracking solution to real time data capturing and process automation tool.”

### Price Issues

If some of the user concerns such as cost are addressed adequately, RFID adoption can show a significant increase. Ganpat Shinde said, “RFID isn't as cheap as traditional labeling (Barcode) and Card (EM) technologies, but it does offer added value and is now at a critical price point that could enable its large-scale adoption

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**With increase in frequency in RFID, product prices also increase. RFID product prices depend on whether it is active or passive tag. However, to have security and safety customers prefer to use these products as they are intelligent to choose the right product which offers “value for money” to them.**

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