The major difference between hardware encryption and software encryption is that in hardware based encryption, encryption and decryption processes are done by a dedicated processor on the hardware encrypted device. In software encryption, the resources of the device on which the software is installed, are used for the encrypting and decrypting the data. This makes hardware encryption much faster. **Another advantage to hardware encryption is that the cryptographic key is stored in a separate inaccessible portion of memory storage, thus making it more secure than software encryption.**

The global hardware encryption market revenue is expected to reach $14.86 billion by end of 2013 is expected to grow to $166.67 billion in 2018 at a CAGR of 62.17%. Similarly, volumes are estimated to grow from roughly 59.76 million units to 691.79 million units in 2018 at a CAGR of 63.20%. This growth is heralded by the growing consumer electronics applications market for hardware encryption products. The hardware encryption applications in the Military Defense and Aerospace (MDA) applications sector is also expected to grow rapidly in the coming five years.

This report also looks into the whole value chain of the hardware encryption market. It also focuses on the parent markets and the sub-markets of this industry and thus identifies the total potential market that can be tapped by hardware encryption. The market penetration of hardware encrypted HDDs into this TAM stands at 20.07% in 2013 and is expected to grow to 69.05% by 2018. Similarly, the market penetration of hardware encrypted USB drives into this TAM stands at 33.17% in 2013 and is expected to grow to 63.81% by 2018.

The report, based on an extensive research study of the global market and the related semiconductor and products industries, is aimed at identifying the entire market of hardware based encryption systems in all the applications. The report covers the overall market and sub-segment markets through extensively detailed classifications, in terms of both - revenue and shipments.
The sub-market of the hardware encryption market considered in this section is the semiconductors market for hardware based encryption chipsets. The semiconductor market is currently estimated to be around $1.77 billion and is expected to reach $6.06 billion by 2018. Though the numbers of chipset manufacturers are low currently, more number of chipset players are looking to tap the hardware encryption market potential and thus the procurement channel is expected to become more efficient in the future.

This report is focused on giving a bird’s eye-view of the complete hardware encryption industry with regards to the products market with detailed market segmentations; combined with qualitative analysis at each and every aspect of the classifications done by semiconductors, products, applications, sub-applications, verticals and geography. All the numbers, both revenue & volume, at every level of detail, are forecast till 2018 to give a glimpse of the potential revenue base in this market.

**Markets & Market aspects covered:**
In this report, the global hardware encryption market is fully segmented into the following categories and the industry trends also covered, by the following aspects:

- **Total Markets:** Global hardware encryption Market – Product Market, Child/Sub-Markets, Related Markets, Total Addressable Market (TAM) and Market Penetration of Hardware encryption.

- **Child/Sub Markets:** Semiconductors market in hardware encryption.

- **Related Markets:** Software encryption Market.

- **Market by Verticals:** Global Hardware encryption Verticals market, Industrial, Residential, Commercial and Government Institutional.

- **Market by Products:** Hardware encrypted hard disk drives (HDDs), In-line encryptors and hardware encrypted USB flash drives & memory sticks.

- **Market by Application Sector:** Hardware encryption markets in Consumer Electronics Sector, Communication networking security, Automotive and Transportation Sector, Military Defense & Aerospace (MDA) Sector, Healthcare Sector, Enterprise Sector and Emerging and other Application Sector.

- **Market in Consumer electronics sector:** Hardware encryption market in Enterprise applications, Notebook and Laptop Applications, Desktop applications and other consumer electronic device applications.

- **Market in Military, Defense & Aerospace sector:** Hardware encryption market in Military data encryption applications and Satellite Communication applications.

- **Market by Geography:** North America (sub-segmentation by the U.S. & others), Europe (sub-segmentation by U.K., Germany, France and others), Asia-Pacific (sub-segmentation by China, Japan, South Korea, India and others), and Rest of the Word (sub-segmentation by Latin America, the Middle East and others).

- **Market – Competitive Landscape:** Market share analysis separately for Hardware encrypted HDD product manufacturers and Hardware encrypted USB drive manufacturers.

- **Market – Company Profiles:** Detailed analysis of major companies existing in the hardware encryption value chain.