

Startups Put India on Technology Product Map

Peerzada Abrar and **Biswarup Goptu** track local technology firms that are bagging global customers, including Nasa, for their cutting-edge products

For Better Products



Druva Software

sells retrieval software and enterprise backup for laptops and other mobile devices to customers such as US space agency Nasa, French fashion brand Louis Vuitton and Xerox



Ittiam Systems

is the source for technology for multimedia functions in about 25 million units of smartphones and tablets, sold by top OEMs since April last year



Inttelix

has developed a biometric facial recognition product that yields even more accurate results and is being implemented in US, Brazil and Saudi Arabia



Serial Innovations'

products have been deployed in US drones, BAE Systems, Stanford Research Institute and Visteon Corp, the auto-parts maker spun off by Ford Motor



Mistral Solutions

has developed wearable video cameras used by law enforcement agencies across USA

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PROFESSOR S SADAGOPAN, Founder-director of the International Institute of Information Technology - Bangalore

As US space agency Nasa readies itself for its next mission that will send humans into space, a little-known Indian startup is helping it secure precious data. Pune-based startup Druva Software is selling retrieval software and enterprise backup for laptops and other mobile devices to its clients, which includes Nasa.

Druva is among a growing number of Indian startups that are developing valuable pieces of intellectual property and technologies for global customers.

Industry experts say these startups are able to add value by making quality products in less time and at one-tenth the cost. "Right now, innovation in India is kicking from all dimensions. A lot of startups are developing quality products which are not imitation of existing products but are better than the best," said Professor S Sadagopan, founder-director of the International Institute of Information Technology - Bangalore (IIIT-B).

From just a handful of ventures like Tally Solutions, Subex Technologies and Infosys' Finacle solution, the Indian product story now has a cast of new players who are developing cutting-edge technologies.

"We are observing that a lot of entrepreneurs in India have started to focus on products rather than traditional services, because they have realised that intellectual property reward is now a bigger game," said Kiran Hosakote, country head (India) at Intellectual Ventures, an invention capital company founded by former Microsoft Corp CTO Nathan Myhrvold.

ET profiles five top technology companies that are on the path to firmly establish India as the product hub of the world.

DRUVA SOFTWARE

Druva enables a simple, one-click restoration of any file or backup volume. Among the firm's customers are French fashion brand Louis Vuitton, Xerox and the US Marine Corps, which uses Druva's software to secure laptops in conflict zones like Afghanistan. The startup, founded in 2007 by Jaspreet Singh, Ramani Kothandaraman and Milind Borate, now sells its products to over 1,200 customers across 26 countries.

Nasa had 5,408 computer security lapses in 2010 and 2011. This included the March 2011 loss of a laptop computer that contained algorithms used to command and control the International Space Station, a habitable artificial satellite. Druva's software is currently being used by Nasa to provide a backup for their data.

A survey conducted by Druva across the US says that over 64% of respondents do not have a laptop backup policy. Milind Borate, Druva's CTO, said thousands of laptops were lost at US airports last year and 60% of them

probably had no backup of their data. "It's a new market and we are trying hard to build a brand for ourselves," said Jaspreet Singh, chief executive, whose first stint as an entrepreneur was running an Indian cuisine kitchen along with his friends during a student exchange programme in Germany. Druva has raised a total of \$17 million from Nexus Venture Partners, Sequoia Capital and seed funding from angel investor Indian Angel Network and Accord International of Hong Kong. It expects to earn revenues of \$20 million by next year.

ITTIAM SYSTEMS

Technology company Ittiam Systems has created special algorithms to make the best use of limited processing power available in smartphones and tablets. Globally, nearly 25 million smartphones and tablets that were sold since April last year, use Ittiam's technology to enable high definition video playback and camcorder applications.

Ittiam is also enabling applications in advanced audio such as surround sound and camera features like low light and panoramic photography. "The life of a smartphone or tablet is 12-18 months. They cannot afford to spend three years to develop new products," said Srinji Rajam, CEO of Ittiam. A former managing director of Texas Instruments' India, Rajam co-founded the company almost a decade ago. This year, the company crossed \$20 million in revenues, with royalty income accounting for 35%, highlighting the success of the company's intellectual property (IP) licensing business model.

Ittiam counts Sony, Samsung and Cisco among its top customers. It has raised \$13 million in venture funding, including \$5 million from Global Technology Ventures. Ittiam has 30 US patents issued and another 30 filed for processing.

SERIAL INNOVATIONS

Bangalore-based Serial Innovations (SI) has developed products that help stabilise video feeds coming from unmanned aerial vehicles (UAVs). The startup had developed these systems for one of the world's largest defence companies, which in turn sold them to armed forces around the world, including the US Army. It mainly builds visual sensing systems, which sense, analyse and control complex environments.

Their products include night vision goggles and smart thermal cameras. The five-year-old company sells these products to customers like Europe's largest defence contractor BAE Systems, Stanford Research Institute, Autoliv Inc and Visteon Corp.

"Our imaging systems are 40-50% cheaper compared to products imported from Europe, the US and Israel," said SI founder Arvind Lakshmi Kumar, who has a PhD in

robotics from Carnegie Mellon University. His firm, which raised ₹2.2 crore last year from Mumbai Angels, earns revenues of around ₹10 crore, has 15 employees and 15 patents awaiting approval.

MISTRAL SOLUTIONS

Bangalore-based Mistral Solutions has developed wearable video cameras used by law enforcement agencies across USA. These cameras have been developed to protect officers from allegations of wrongdoing and to document evidence of encounters with the public. These recordings are used for after-action training and legal inquiries. Mistral has also built a development platform that enables top multinational companies cut their design and development cycle by half.

"Among customers for this product is Motorola, which is using this platform to release their next-generation products," said Anees Ahmed, the firm's chairman and co-founder. The company, which is targeting revenues of ₹300 crore next year, has raised \$9.25 million from eTec Ventures, Nexus Venture Partners and JAFCO Asia. Mistral, which gets around 50% of its business from the US, is also designing a voice-based wearable computer and smart sunglasses that have features similar to a smartphone.

INTELLEX SECURITY SOLUTIONS

Coimbatore-based software startup Inttelix has developed a unique biometric facial recognition product.

It not only uses facial recognition to identify a person, but also uses skin biometrics, the uniqueness of skin texture, to yield even more accurate results. The four-year-old company with revenues of around ₹4 crore is selling the product in markets such as USA, Brazil and Saudi Arabia.

It is doing a project for a South American client the in vehicle security solution space, where the system will send alerts such as speed, the route, location and other indications to avoid collisions.

The system also has a 'blackbox' similar to those in aircraft to record all events - audio and video - so that in case of any untoward incident, it is easy for insurance and other agencies to identify the cause. Inttelix founded by IIT Delhi graduate Sanjay Kumar Gupta has implemented the product at Nagarjuna Oil Corporation, part of the Nagarjuna Group, to keep a track of around 12,000 workers.

Industry experts say that even though India has become a powerhouse of technology services, the country can excel in product space as well. For Singh of Druva, it is all about creating a conducive ecosystem for entrepreneurs to develop products. "A product company is like a human baby. It takes time to grow," he said.