THE AAKASH

The **Aakash** is an Android tablet computer jointly developed by theLondon-based company DataWind[1] with the Indian Institute of Technology Rajasthan and manufactured by the India-based company**Quad**, at a new production centre in Hyderabad[2] — under a trial run of 100,000 units.[3] The tablet was officially launched as the *Aakash* in New Delhi on Oct 5, 2011. A substantially revised second generation model is projected for manufacture beginning in early 2012.[4]

The seven-inch touch screen tablet features 256 megabytes of RAM, uses an ARM 11 processor[5] with the Android 2.2 operating system, has two USB port[3] and delivers HD-quality video.[5] For applications, the Aakash will have access to Getjar, a proprietary market, rather than theAndroid Market.[6]

As a multi-media platform, the Aakash project was beset by delays and setbacks.[3] The device was developed as part of the country's aim to link 25,000 colleges and 400 universities in an e-learning program.[7] Original projected as a "$35 laptop",[8] the device will be sold to the Government of India at $50[9] and will be distributed at a government subsidized price of $35. A commercial version made in China will be marketed as the**UbiSlate 7**[10] at a projected price of $60.[11]

The name *Aakash* derives from the Sanskrit word for "aether" or (empty)space, and means "sky" in Hindi.[5][12]

History

Aspiration to create a "made in India" computer was first reflected in a prototype "Simputer" that went into production in a small way. Bangalore based CPSU, Bharat Electronics Ltd manufactured around 5,000 Simputers to Indian Customers during 2002-07. In 2011, Kapil Sibal (by then the Minister for Human Resource Development MHRD (the Indian Education Minister) announced an anticipated low-cost computing device to compete with the One Laptop Per Child (OLPC) — though intended for urban college students rather than the OLPC's rural, underprivileged students.

The device was projected to be designed by the students of Indian Institute of Technology Rajasthan – at the time uncredentialed in research or product development. The announced computer had been purchased off the shelf. The project remained dormant for about a year.

A year later, the MHRD announced that the low cost computer would be launched in 6 weeks. Nine weeks later the MHRD showcased a tablet named "Aakash", not nearly what had been projected and at $60 rather than the projected $35. Arguably its greatest champion, India's TV channel "NDTV" said that the new low cost tablet was not a patch that was shown as a prototype and was going to cost about twice as much.[13]

While it was once projected as a laptop computer, the design has evolved into a tablet computer. At the inauguration of the national Mission on Education Programme organized by the Union HRD Ministry in 2009, joint secretary N. K. Sinha had said that the computing device is 10 inches (which is around 25.5 cm) long and 5 inches (12.5 cm) wide and priced at around $30.[14]

India's Human Resource Development Minister, Kapil Sibal unveiled a prototype on 22 July 2010. The price of the device exhibited was projected at $35, eventually to drop to $20 and ultimately to $10.[7][15][16] After the device was unveiled, OLPCChairman Nicholas Negroponte offered full access to OLPC technology at no cost to the Indian team.[17]

Doubts about the tablet were dismissed in a television program "Gadget Guru" aired on NDTV in August 2010,[18] when it was shown to have 256 MB RAM and 2 GB of internal flash-memory storage and demonstrated running the Android operating system featuring video playback, internal Wi-[19]

Specifications

As released on 5 October 2011, the Aakash features an overall size of 190.5 x 118.5 x 15.7mm with a 7" resistive screen, a weight of 350gms and using the Android 2.2 operating system with access to the proprietary marketplace Getjar (not the Android marketplace), developed by DataWind.

The processor is 366 MHz with Graphics Accelerator and HD Video Co-processor and the tablet features 256 MB RAM, a Micros SD slot with a 2GB Micro SD card (expandable to 32GB), two full-size USB ports, a 2100mAh battery, Wi-fi capability, a browser developed by DataWind, an internal cellular and Subscriber Identity Module (SIM) modem, using a power consumption of 2 watts with a solar charging option. The device features 3.5mm audio output and input jack.

The Aakash is designed to support various document (DOC, DOCX, PPT, PPTX, XLS, XLSX, ODT, ODP,PDF), image (PNG, JPG, BMP and GIF), audio (MP3, AAC, AC3, WAV, WMA) and video (MPEG2, MPEG4, AVI, FLV) formats and includes an application for access to YouTube video content.[7][7][18] [20][21][22][23]

Specifications	**Aakash**	**UbiSlate 7**
Price	Rs.2,500	Rs.2,999
Microprocessor	Arm11 – 366Mhz	Cortex A8 – 700 Mhz
Random Access Memory (RAM)	256MB RAM	256 MB RAM {http://www.ubislate.com/specifications.html }
Battery	2100 mAh	3200 mAh
OS	Android 2.2 Froyo	Android 2.3 Gingerbread
Network	WiFi	WiFi & GPRS Phone network
Made in	India	China
Rebate	50% off for Indian Students	Foreign product

Development and testing

Kapil Sibal has stated that a million devices would be made available to students in 2011. The devices will be manufactured at a cost of ₹1500 (€23 Euro) each, half of which will be paid by the government and half by the institutions that would use it.[18][24] In January 2011, the company initially chosen to build the Sakshat, HCL Infosystems, failed to provide evidence that they had at least ₹600 million (₹60 crore) ($12.2 million) in bank guaranteed funds, as required by the Indian

government, which has allocated $6.5 million to the project. As a result, the government has put the project out for bidding again.[25]

In June 2011,the HRD announced that it received a few samples from the production process which are under testing. Also it mentions that each state in India provided 3000 samples for testing on their functionality, utility and durability in field conditions.[26]

The Government of India announced that 10,000 (Sakshat) tablet will be delivered to IIT Rajasthan in late June and over the next four months 90,000 more would be made available at a price of ₹2500 device. Government will subsidize the cost by about 50%, so a student would have to pay less than ₹1,500 for the device.[27]

35% of hardware components were sourced from South Korea, 25% from China, 16% from the USA, 16% from India and 8% from other countries [5].

Software Development DataWind, the maker of Aakash, has announced a contest for students wherein their best applications will be embedded in the Ubislate(Aakash Tablet). Top 5 application winners will be awarded Rs. 1 Lakh each.[28][6]

Nasscom Foundation has partnered with DataWind and announced a contest wherein 10 NGOs will have an opportunity to win 20 tablets each, mainly to improve their operations and programme implementation.[29]

Reception

[4] Problems such as low RAM, frequent system freeze, poor sound quality, absence of support for all formats and inability to install free software available online were also cited by users.[4] Technical commentator Prasanto Roy criticized issues such as a low battery life, an insufficient 7" screen and absence of training and support infrastructure, especially in rural areas.[30]Aakash-2 will be released by 2012.IIT Rajasthan has finalized the improvements of Aakash-1.[31]

After receiving feedback of the early release model from over 500 users from IITs and other institutions, DataWind announced the next iteration, will have a new microprocessor of 700 megahertz as compared to the present 366 megahertz processor. This will improve the speed of the tablet and solve the existing problems of quick overheating, frequent system freeze, poor sound quality, absence of support for all formats and inability to install free online software. [32] A built in camera is the highlight of Aakash-2 which was missing in Aakash-1.[32] Amount of memory, storage, and USB ports will remain the same.

DataWind has scheduled the UbiSlate 7 for January 2012, projecting that specifications will include a revised screen, a front-facing camera and improved RAM.[4]

On 16 December 2011, DataWind opened **Aakash** ordering online in their Official website at ₹ 2500 with one week Delivery time and Cash on Delivery facility and its upgraded version Ubislate is available for pre-order at ₹ 2999.[33]

On 19 December 2011, DataWind reported that the first phase of Aakash tablet has been sold-out completely.[34] It has been just three days since it was opened for Online order.

Future plans

Made in China, the UbiSlate 7 will be launched between January and February of 2012

DataWind is already working on giving the device a capacitive screen and 3G connectivity. This version will be priced around Rs.7,000.

Reliance Industries Limited (RIL) has announced the plan[10] to launch LTE(4G) Tablet between 3500-5000 Rupees, with low cost Internet service. This tablet will be an upgraded version of Aakash developed by DataWind.[11]