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Aakash 2: Govt pushes for customised apps

The writer has posted comments on this article Shelley Singh Shelley Singh ,ET Bureau | Jan 7, 2013, 03.31 PM IST

NEW DELHI: Now that the hardware of Aakash is more or less cracked, the government is driving a big effort to load software on to the world's cheapest tablet.

A four-member technical committee formed by the government is looking to seed a software ecosystem, which will continuously release applications for Aakash, primarily related to learning and education, in the years to come.

According to Ashok Jhunjhunwala, a professor in IIT Madras and a committee member, about 25 academic institutions and private companies have signed up to build applications for Aakash, and the aim is to double that count by March.

Simultaneously, IIT Madras is putting about 5,000 engineering students through a four-day crash course on Aakash in the hope that they will build applications for it, perhaps even businesses around it.

"The focus of app development is around education -- it could be live broadcast of lectures or interactive-e-book apps," says Jhunjhunwala. The current Android-powered Aakash tablet -- which the government buys for Rs 2,263, but gives to students for Rs 1,150 -- comes with 24 apps, but in gaming, mail or chat.

"We need apps specific to Indian education requirements and that's where the need to develop a home-grown Aakash apps ecosystem," says DB Phatak, professor, IIT Bombay. Besides IIT Bombay and IIT Madras, the committee includes personnel from the Centre for Development of Advanced Computing (CDAC) and an entity from the ministry of human resources and development, which is funding Aakash.

The list of 25 organisations includes academic institutions (for example, the IITs and American Digital University), private companies (Mango Learning, TopChalks and Digital BackPack), and service providers (ITZCash). So, for example, the British Council in India is working on two apps: one on English language learning and another to prepare students for interviews.

At its open source lab, IIT Bombay is working on SciLab (which will port engineering software to Aakash) Clicker (a live assessment tool for instant quizzes) and Proximity (makes available lectures of IIT professors). Elsewhere, US-based Mango Learning is developing apps to teach maths through games. "The tablet, by itself, is a dumb device and that's where you need apps," says Prakash Ahuja, CEO of Mango Learning.

"We will embed Aakash with one free app and chargeRs 49 per app to download any of our 400-plus maths learning apps." Taking note of the ongoing shift of the public delivery and government welfare system to an Aadhaar platform, developers are also planning apps tailored to its foundation of doing biometric authentication to identify a person.

"On the health side, there are apps like one by Eyenetra, which can be used for eye testing and iris scan," says Suneet Singh Tuli, CEO of Datawind, currently the only maker of Aakash.

"Similarly, Noida-based SmartID is developing biometric apps to expand the use of device for

authentication, if need be." Some of these apps will be free, others paid. According to Jhunjhunwala, in the next three months, the government will take a call on whether to make available all Aakash apps on a common online location, as Apple or Nokia does.

Building apps for Aakash presents its own unique challenges as the tablet is not as powerful, robust or visually-rich as, say, top-end tablets like an Apple iPad or a Samsung Galaxy. "The challenge on Aakash is the system is not good enough to support featurerich apps," says Vishal Pal Chaudhry, COO of TopChalks.

"For example, we can't teach the working of internal combustion engine via video on Aakash." According to Tuli, an Aakash app should meet three conditions. One, it should not be heavy and should run easily on Aakash's modest specs: Android OS, 4 GB internal flash memory and 512 MB of RAM.

Two, it should work on low Internet speeds (as broadband networks are still not pan-India). And, three, its user interface should be simple enough so that it is accessible even to users who are not computer-savvy.

Developers will have more latitude with the next version of Aakash, expected by March. According to Jhunjhunwala, the third version of Aakash will have a faster processor, choice of operating system (Android or Linux), more memory, and a SIM slot to use a mobile phone and network to connect to the Internet.

"The devices will go to places where there may not be any broadband connectivity. That's why a SIM slot is a must," says Tuli of Datawind. The upgraded Aakash will form the basis of the full-fledged rollout, which is likely to see the government buying 5.6 million tablets, in phases, from multiple vendors. At present, just one company, Datawind, is supplying 100,000 tablets to the government.

"Aakash is not a one-off programme, but a decade-long project that will see computer-based delivery of education on the low-cost tablet," says Jhunjhunwala. That's partly the thinking, he adds, behind training engineering students to build apps for Aakash. "Students will be using the apps," says Jhunjhunwala.

"The idea of training them is they know what is needed to learn and are hence sensitive to requirements. Besides, since Aakash is a long-term project, some students could get entrepreneurial ideas, and set up companies to support Aakash."