DEVICE SPECIFICATIONS

Hardware

- Six-core ARM 64-bit CPU, up to 2 GHz.
- 802.11 a/b/g/n/ac Dual-band WiFi, range up to 25 metres.
- 2Gb RAM / 64Gb MicroSD card (upgradable to 128Gb).
- Power bank: 5000mAh, 5V/3A (upgradable to 20000mAh).
- Battery life: 8 hrs normal usage, 4 hrs heavy usage.

Software

- Operating system: Ubuntu 16.04.
- Open source CMS/LMS: WordPress, Moodle, OpenSIS, etc.
- Web Services/Applications: ownCloud, KA lite, OpenStreetMap.

Indicative cost

- Single Board Computer (SBC): USD75-120
- Power bank: USD15
- MicroSD card: USD10-20

Total cost of Aptus approximately USD100-150

OER content (samples*)

- Approximately 3,000 Khan Academy videos.
- 6,000 articles and 50,000 images from Wikipedia for Schools.
- 100,000 articles from Simple English Wikipedia.
- Interactive digital world map based on OpenStreetMap.

*Institutional content can easily be added to Aptus.

KNOWLEDGE MANAGEMENT AND TECHNOLOGY AT COL

Knowledge flows occur through various pathways in an organisation and harnessing them effectively can contribute to enhancing the overall impact. COL's knowledge management framework emphasises the importance of both people and processes. In addition to providing overall support to COL, the Knowledge Management and Technology Service promotes global discussions, models of best practice and technology innovations, such as Aptus.

COL is an intergovernmental organisation created by Commonwealth Heads of Government in 1987 to promote the development and sharing of open learning and distance education knowledge, resources and technologies.

LEARN MORE
www.col.org/aptus

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COMMONWEALTH of LEARNING

Aptus

Transforming the teaching-learning experience with low-cost innovative technology

The price of mobile devices have come down significantly over the years, while their computing power and memory have increased. Many countries have launched tablet distribution projects to equip teachers and learners with access to web-based learning materials through these low-cost devices. However, a large number of them across the Commonwealth and the globe still struggle in "unconnected" environments. Although innovations in open and distance learning continue to make education more accessible, this development has highlighted a significant barrier: limited or lack of access to the Internet still restricts teachers and learners from using web-based materials. Started in 2013, COL has designed and developed a different approach to extend support by repurposing available commercial products to address this barrier.

THE APTUS SOLUTION

COL's Aptus is a low-cost device that allows educators and learners to connect to digital learning platforms and content without the need for grid electricity or Internet access. This mini-PC requires only battery power which can be recharged via grid power or solar charger, as needed.

It can host up to 128GB of educational content and facilitate interactive, virtual learning anywhere – whether in a remote rural village or on a vast university campus. The result is a "Classroom Without Walls" that can be set up within minutes and accessed by any learner with a laptop, tablet or mobile device.

The mini-PC, together with the power bank costs approximately USD150.

The Commonwealth of Learning (COL) believes that it is possible to reach the unreached through the use of appropriate and affordable technologies. Our Aptus is an exciting innovation that can transform the teaching-learning experience everywhere it is used – even under a tree in a remote, resource-poor location.

PHOTO CREDIT: EU HUMANITARIAN AID AND CIVIL PROTECTION (CC BY-SA 2.0)

The design and functionality of Aptus continues to evolve based on research, field trials and the deployment of the device in 28 countries to-date, and has seen 5 product generations since 2013.

AN ENABLER OF MOBILE LEARNING

Today, Aptus has proven to fulfill a critically-felt need for access to Open Educational Resources (OER) and Open Source software in areas with limited connectivity. As recent as April 2018, COL sent Aptus devices to assist the Ministry of Education, Tonga in restoring classroom teaching in Tongan schools and colleges, following Cyclone Gita, which hit the country in February.

A technology upgrade to provide high performance for at least two years (Generation 6) is expected in late 2018 and a community-building of technical support will also be fostered.

To learn more about Aptus, we invite you to visit our website or contact us.