

Our first package offering, the PAYU Education Service<sup>©</sup>, can be deployed in secondary school computer labs. Each functional package unit serves one computer lab, which houses approximately 20-25 computers. The unit is equipped with the PAYU infrastructure, and offers access to a broad range of education related software, media and resources.

Our second offering, the PAYU Home Entertainment Service®, can be deployed in 100-house residential units. The size of each package offering can vary depending on the demand.

All the packages include common applications like: Open Office, Acrobat Reader etc.

# 1. PAYU Education Service® For Secondary Schools

The PAYU Education Service Package can be deployed in secondary schools. This package provides software, media and resources that enhance learning at the secondary level. The service offers a fun and interactive means of learning, that is unique and that complements the current teaching methods.

The PAYU Education Service© includes the following:

#### A. FOR STUDENTS

### 1) Educational Games

### a) Atomix

This is a game in which you have to build molecules, from simple inorganic ones to those which are extremely complex organic, out of isolated atoms.

Suitable for Chemistry students in Form 3-6.

## b) Kalzium

Kalzium is a full-featured chemistry application including a Periodic Table of elements, a chemical reference, a chemical equation solver, and a 3D molecule viewer.

Suitable for Chemistry students in Form 1-6.

### c) Octave

This is a high-level language, primarily intended for numerical computations. It provides a convenient command line interface for solving linear and nonlinear problems numerically. The software is also capable of performing other numerical experiments using a language that is similar to and compatible with Matlab.

Suitable for Physics/Engineering students in Form 4-6.

### d) Kig

Kig is an application for interactive geometric construction which allows students to draw and explore mathematical figures and concepts using the computer.

Suitable for Mathematics students in Form 1-6.

### e) Kmplot

KmPlot is a powerful mathematical plotter capable of plotting multiple functions simultaneously and combining them into new functions. KmPlot also provides numerical and visual features such as filling and calculating the area between the plot and the first axis, finding maxima and minima, changing function parameters dynamically, and plotting derivatives and integral functions.

Suitable for Mathematics students in Form 1-6.

### f) KStars

KStars is a desktop planetarium for KDE 4, depicting an accurate graphical simulation of the night sky, from any location on Earth, at any date and time. The display includes 130,000 stars, 13,000 deep-sky objects, the 8 planets, the Sun and Moon, and thousands of comets and asteroids. It includes tools for astronomical calculations and can control telescopes and cameras.

Suitable for Mathematics students in Form 1-6.

## 2) MIT OpenCourse Ware (OCW)

We will provide locally hosted OCW material. OCW is an initiative of the Massachusetts Institute of Technology (MIT) to share educational materials from its undergraduate-and graduate-level courses online. It is free and open to anyone, anywhere. It has over 1800 courses available.

## 3) Wikipedia

Providing a locally hosted version of Wikipedia, the largest encyclopedia in the world, will allow students and teachers fast access to over 3 million articles in different areas. Together with this, we will provide access to Wikipedia customized for schools with articles categorized into different subjects such as Physics, History etc.

# 4) Educational videos

Videos in different scientific areas can be hosted in schools.

## 5) Other software/media

### a) Kvoctrain

This is a vocabulary trainer ideal for SAT Verbal preparation. It uses a flash cards approach for learning new words.

### b) Screem

SCREEM is a tag-based Web page editor, which facilitates the creation of Web pages, and provides useful site maintenance facilities; including automatic link updating and site upload facilities.

# c) Tuxtype

This is an educational typing tutor to help students to learn typing skills and improve their typing speed.

### 6) iLabs: Remote Electronics Experiments

iLabs provides remote laboratories in electronics hosted at MIT, Makerere University in Uganda and University of Dar-es-salaam. Experiments include basic circuits, Op-Amps and Diode characterization experiments. Experiments are run on real hardware allowing students to compare theoretical and experimental results.

# 7) Personal Website space

We can provide web space that students can use to host their personal websites. This will expose students to website development and hosting; an important skill to have.

# 8) Audio books & E-books

These include novels, school textbooks and SAT preparation books.

### B. FOR TEACHERS AND ADMINISTRATORS

# 1) PAYU Management tools

With the PAYU Management tools teachers can limit time spent on computers and monitor usage by students.

# 2) iTALC master interface

iTALC makes it possible to access and influence the pupils' activities from the computer of the teacher. With the help of iTALC, the teacher is able to view the content on the pupils' screens on his/her screen. If a pupil needs help, the teacher can access the pupil's desktop and provide support from his computer. The pupil can also learn by watching the teacher's actions from his/her computer.

For teaching purposes, there is a demo-mode where all pupils' screens have access to the teacher-screen. Furthermore things like locking students' screens, killing games, power on/off clients, and much more, can be done with iTALC.

### 3) Moodle

Moodle is an Open Source Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It has become very popular among educators around the world as a tool for creating online dynamic web sites for their students. Moodle is designed to help educators create online courses with opportunities for rich interaction.

# PAYU Packages

# March 18, 2009

4) School Administrator/Academic Master:

We will provide a student information management solution for performing tasks such as scheduling classes, managing student grades and printing report cards.

# 2. PAYU Home Entertainment Service® For Residential Areas

For the homes we can provide a computer with Internet and the PAYU Home Entertainment Service<sup>®</sup> package with the following software:

## 1) Video and Music on demand

This will include various video and music libraries including productions from local artists. It will provide music and video on demand services.

### 2) Games

For families with children we will provide various games that will offer both entertainment and education.

# 3) VOIP

VOIP allows local and international calls to be made at reasonable prices on the computers.

# 4) P2P services

This will provide a means of sharing files for people in the umudugudu among themselves and with the rest of the world.

### 5) Personal Website

Like the educational package we will also provide web-hosting space for users.

### 6) Local portal

This will be an all-in-one information stop that will provide local news, weather, and news and event announcements.

### 7) Educational package

We will offer all or part of the educational package as part of this package.