



Jomo Kenyatta University of Agriculture and Technology improves learning experience and infrastructure with Google Apps



At a Glance

What they wanted to do

- Implement a system that would improve communication and collaboration between the university's different campuses, staff and students
- Improve bandwidth and provide a more reliable internet infrastructure
- Reduce IT expenditure

What they did

- Implemented Google Apps for Education across the staff and student population
- Invested in its internet and wifi infrastructure with the help of a GASP grant

What they accomplished

- Transformed the way students and staff collaborate and enhanced access to learning resources
- Connected 40-50 percent of the campus to wifi hotspots, enhancing the student study experience
- Realised substantial cost savings that can be re-invested in further infrastructure improvements

Customer

Jomo Kenyatta University of Agriculture and Technology (JKUAT) is a public university situated near Nairobi, Kenya. A former college that gained university status in 1994, JKUAT offers degrees in agriculture, engineering, technology, enterprise development, architecture, health sciences, social sciences and applied sciences and has a strong research interest in the areas of biotechnology and engineering. It currently has a student population of 29,500 and 2,600 staff.

Challenge

JKUAT aims to offer accessible and quality training, research and innovation to produce leaders in agriculture, engineering, technology and sciences. Unfortunately, the university faces challenges similar to many educational institutions in the country which struggle with cost, bandwidth and reliability issues relating to their internet infrastructure and electricity network.

The university runs a number of campuses across Kenya, including Nairobi, Mombasa and Karen, which means a reliable system for collaboration and communication is critical. The internet allows staff and students to correspond, share information, work together on projects and gain access to a wealth of study resources. Unfortunately, due to resource and internet limitations, the university was unable to invest in a suitable technology infrastructure until recently.

"We had lots of problems with our internet connection and it did not meet the demands of a modern university. A year ago, our connection was very slow with 20Mbps. We have been spending between one and two million Kenyan shillings (US\$23,850) each month on the infrastructure, which is an unsustainable burden," says Professor Romanus Odhiambo, Deputy Vice Chancellor at JKUAT. "As well as the need to provide fast internet access for our on-campus students, we have a large number of distance learning students, so providing the infrastructure to support this was crucial."

"Google Apps has transformed our university services and we will recommend them to other colleges and universities."

—Professor Romanus Odhiambo, Deputy Vice Chancellor, JKUAT

Solution

JKUAT decided to implement Google Apps for Education, the free communication and collaboration suite hosted online by Google, following a recommendation from another university that praised the system for its reliability, affordability and collaborative benefits. It has also successfully applied for a grant through the Google Apps Supporting Programs (GASP) to build out the university's internet infrastructure.

About Google Apps for Education

Google Apps for Education is a free suite of hosted communication and collaboration applications designed for schools and universities. Google Apps includes Google Mail (webmail services), Google Calendar (shared calendaring), Google Docs (online document, spreadsheet, presentation, and form creation and sharing), Google Video (secure and private video sharing – 10GB free) and Google Sites (team website creation with videos, images, gadgets and documents integration), as well as administrative tools, customer support, and access to APIs to integrate Google Apps with existing IT systems.

For more information visit
www.google.co.uk/a/edu

About the Google Apps Supporting Programs (GASP)

The goal of the Google Apps Supporting Programs (GASP) is to catalyze Internet usage and Google Apps adoption in Sub-Saharan Africa universities through the provisioning of Google Apps for Education, as well as the strengthening of the existing ICT services of participating universities. It does this through offering a combination of Internet bandwidth or Infrastructure grants, Technical Consulting and Training, and Google Apps Training.

For more information visit
www.google.com/africa/universityprograms/inst/gasp.html

*"We have removed congestion in areas where we previously had problems with bandwidth and are working with Google to expand wifi accessibility further. We have already achieved a great deal and it is fantastic to offer students the ability to use their mobile devices and laptops across the campus to assist with their studies."
—Professor Romanus Odhiambo, Deputy Vice Chancellor, JKUAT*

Today, most staff and students have access to Google Apps accounts, with the remainder to be added soon. Each Google Apps account offers access to Gmail with 25GB of storage, as well as a host of additional applications, including Google Drive for storing files, Google Docs, Google Calendar for organising schedules and Google Talk and Google+ for easier communication and collaboration.

Results

While JKUAT previously suffered from bandwidth and infrastructure upgrade issues, the investment it has made in its ICT infrastructure, bandwidth increment and wireless connectivity has strengthened the university's communications and collaboration services for students, staff and management. The University has already increased internet bandwidth from 20Mbps to 50Mbps and is working on increasing it to 100Mbps within the next year with the help of a GASP grant. Today, WiFi hotspots cover 40 to 50 per cent of the university campus, compared to 10 per cent a year ago.

"We have removed congestion in areas where we previously had problems with bandwidth and are working with Google to expand wifi accessibility further. We have already achieved a great deal and it is fantastic to offer students the ability to use their mobile devices and laptops across the campus to assist with their studies," explains Prof. Odhiambo.

The internet is a key research and study tool for JKUAT students and the adoption of Google Apps has meant more services than ever are now available online. "Staff used to lack confidence in the reliability of our previous email system and would not conduct any important correspondence with students, colleagues and the research community over the medium, instead opting to use the postal service," explains Odhiambo. "Today, most correspondence takes place over email, from sharing course materials to announcements and tutorials, which makes communication more instant, frequent and personal."

The move to Google Apps has also realised substantial cost savings. "By using Gmail as our primary communications tool, we save a lot of money on printing and postage. In terms of infrastructure, running the email service in the cloud and having it managed by Google means we have made extensive resource savings from not having to manage email servers ourselves. We are instead able to focus our efforts on improving the internet infrastructure further."

JKUAT is also keen to use the power of Google to enable collaboration with students across the world. "We are interested in getting involved with the Google Scholar search engine and delivering online lectures to people across different campuses and even different countries. Knowledge exchange is a major focus for us and our students will benefit from having access to the best educational resources from the world's leading educational institutions."

"Google Apps has transformed our university services and we will recommend them to other colleges and universities. We are only at the beginning of our exciting journey and are working on making use of more tools within the Google Apps suite to further enhance the university experience for our students and staff," concludes Odhiambo.

