

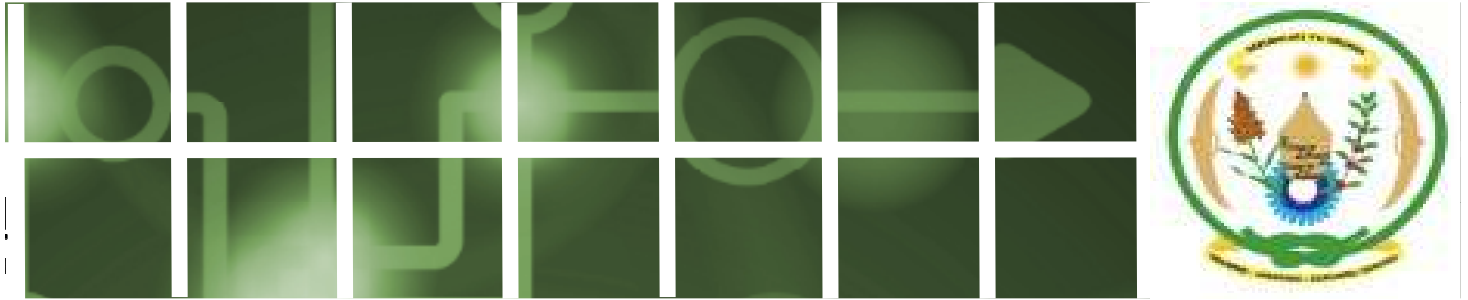


The best practices e-learning inside University of Rwanda (UR)



Presentation Focus

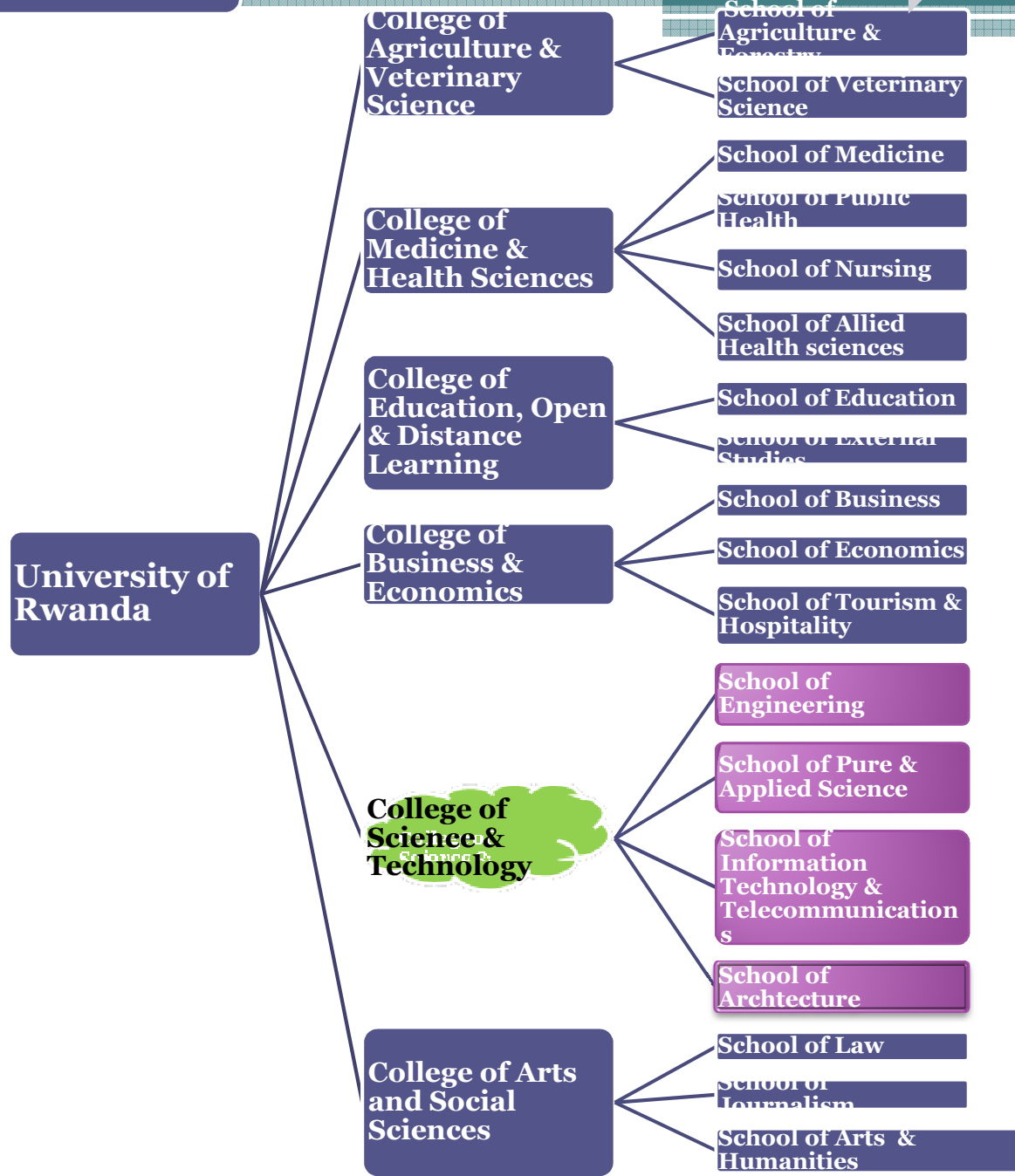
- Background of University of Rwanda
- The Current Status of e-learning
- HUAWEI e-Classroom -Interactive Multimedia class at COSTECH-UR
- Prospects at the Future



University of Rwanda

- **LAW N°71/2013 OF 10/09/2013 ESTABLISHING THE UNIVERSITY OF RWANDA (UR) AND DETERMINING ITS MISSION, POWERS, ORGANISATION AND FUNCTIONING**

THE UNIVESRSITY **COLLEGES** **SCHOOLS**





Current Status of e-learning at COSTECH

- COSTECH offers two rooms for Videoconference, our standard room for small group conferences at KIST 1 which can accommodate 22 people and a large room that can accommodate up to 55 people at KIST IV building Lab 22F. Rooms are equipped with PC, camera, smart board, and sound system and **HUAWEI e-class** room e-learning system.



Current Status of e-learning at COSTECH

- KIST 1 e-learning center room allows table seating for 10 people on round table, with peripheral seating for 15 additional people, in addition, sometimes we use another widely used system and that is Skype which is also used among others.



Current Status of e-learning at COSTECH

- All students and lecturers have usernames and password on MOODLE (KIST Course management system), then academic staff put their course materials on Moodle and students got them from there, no need for lecturers to go in classes with hard copies or softcopies on flash disks. Some lecturers have been trained on the system and can upload their courses, prepare online assignments and online Quizzes but Distance learning officer is always there to train and support lecturers.



Current Status of e-learning at COSTECH

- For the case of video conferencing we use it for learning, meetings and job interviews, currently we have five academic staff who are taking their PH.D from AGDER University in Norway and they use it efficiently.
- 10 Students graduated from KTH university using our e-Learning Systems.



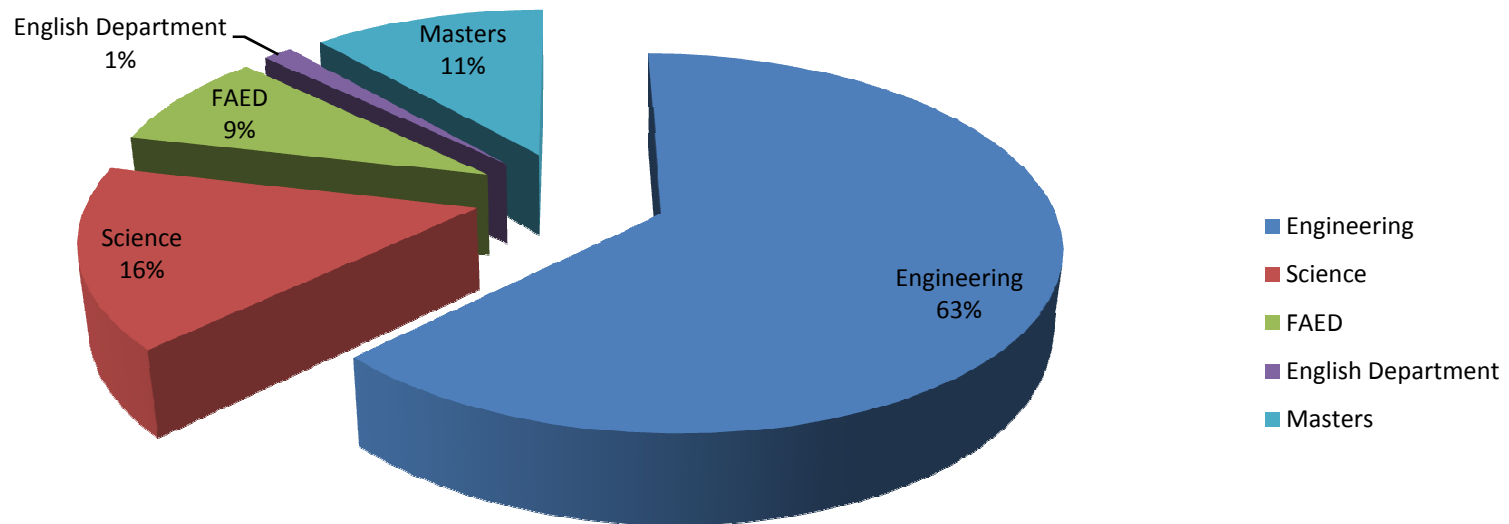
Current Status of e-learning at COSTECH

Area of study	Survey outcomes
Currently workstations	800 PCs
Total number of students	3200
Students to PC ratio	4:1
PC economical life span	3 to 4 years
Technically Total Bandwidth	30Mb/s
Replacement of workstations every year.	200-270
Student income per month	20.000 Rwf
An adequate lap top will cost	500.000 Rwf





Pie chart that shows the percentage and number of courses on KCMS





eClass - Interactive Multimedia Class



Main classroom



Learning at home



classroom

- Students can access classes from a terminal of their choice in distance classrooms, at homes, or during trips.
- Students can exchange ideas with classmates or teachers using video and audio resources and electronic whiteboards.
- The cloud-based eClass platform allows interconnectivity and interoperability between schools and between schools and families for resource sharing.



Functions of the Interactive Multimedia Class

Video and audio resource sharing

- Allows teachers to share video and audio resources in real time.
- Allows teachers or administrators to control the screens of remote classrooms and individual terminals.

Whiteboards and data sharing

- Shares the electronic whiteboard
- Shares desktops and applications.
- Shares video courseware .
- Shares instructional notes in various formats.

Interactive Class

Interaction between teachers and students

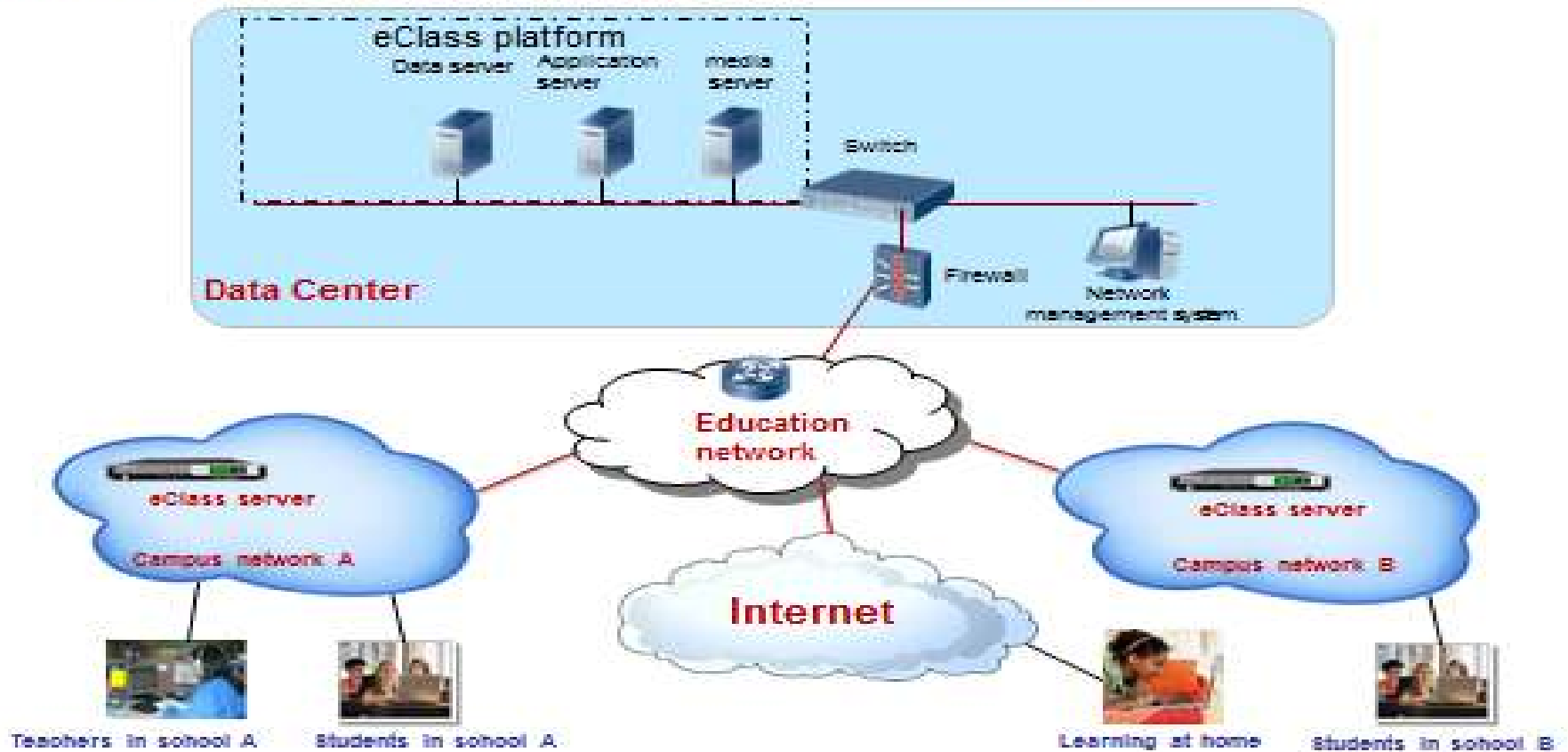
- Free Q & A (with audio, video, and text data)
- Group discussion
- Quizzes

Record and play

- Records classes in real time

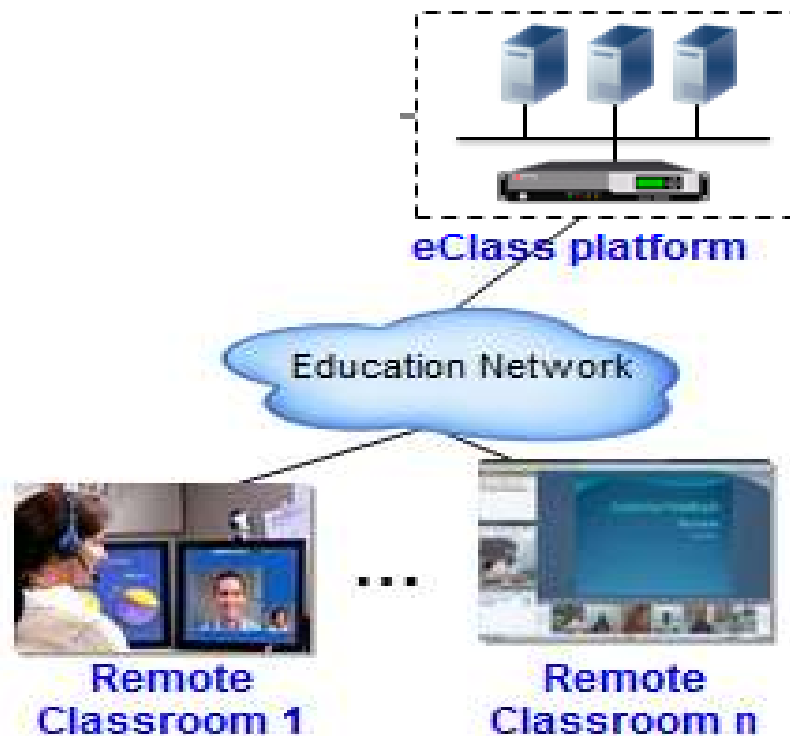


Huawei eClass Networking Solution





Typical Scenario of Distance Education

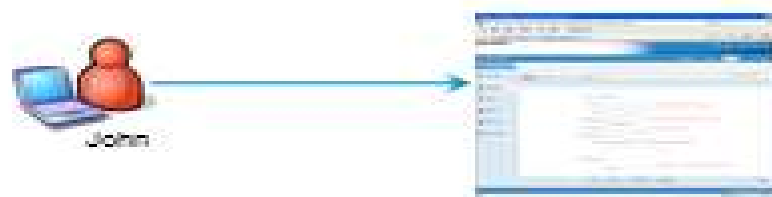


- **Live Class on-line**
 - The lecturing teacher gives a lesson in live studio.
 - Students attend the class in remote classroom. Audio and video of lecturing teacher are output. Sharing courseware of lecturing teacher is displayed on screen.
 - Any teacher can record the lesson.
- **Interactive Class**
 - The lecturing teacher give a lesson by using pc in any classroom. Audio, video and content of whiteboard are broadcasted other remote classroom. He can also watch video of remote classroom from local screen.
 - Students of remote classroom can interact with lecturing teacher via audio , video and text data.
 - Students can access the lesson by pc or tablet at home.



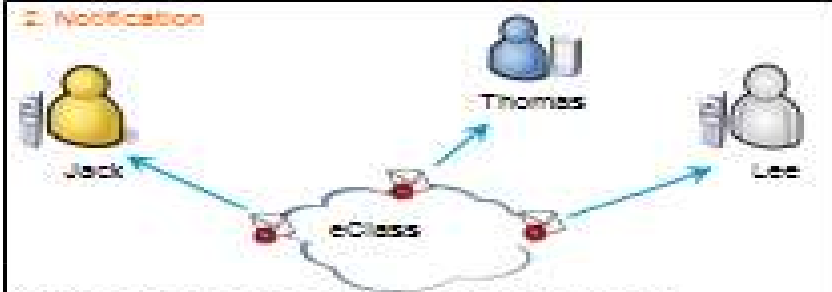
Typical Scenario

1. Reservation



After logging in to Web Portal through his account, course manager arrange a lesson and assigns some student to attend.

2. Notification



After the lesson assignment is successful, student immediately receive a email sent by the system automatically.

3. Access



At the reserved time of the lesson, all student join the eClass.

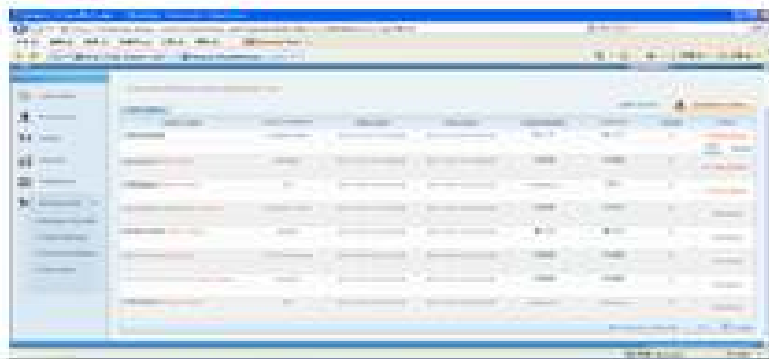
4. Lesson



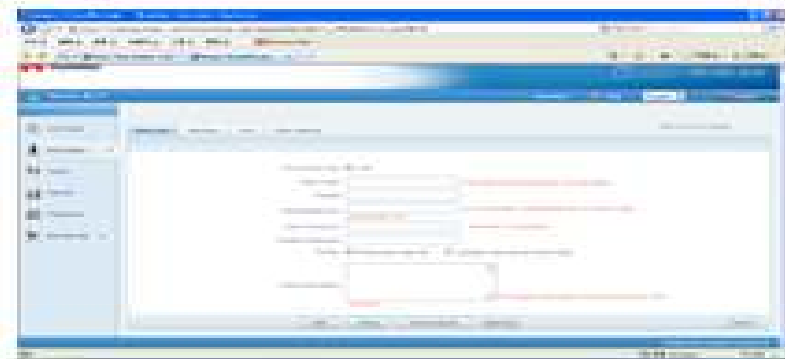
At the same time, student and teacher share documents, programs, electronic whiteboards, web pages, and use the instant message (IM) tool.



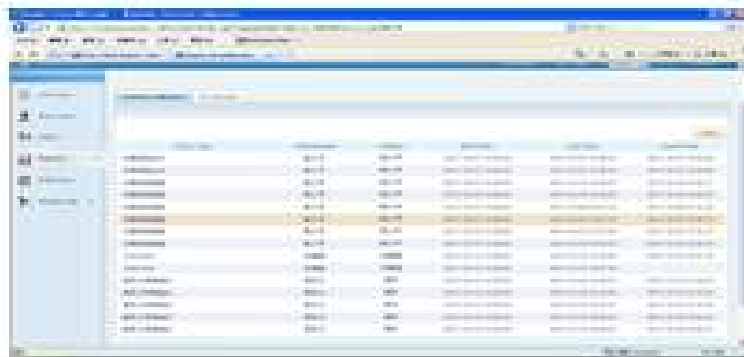
Portal



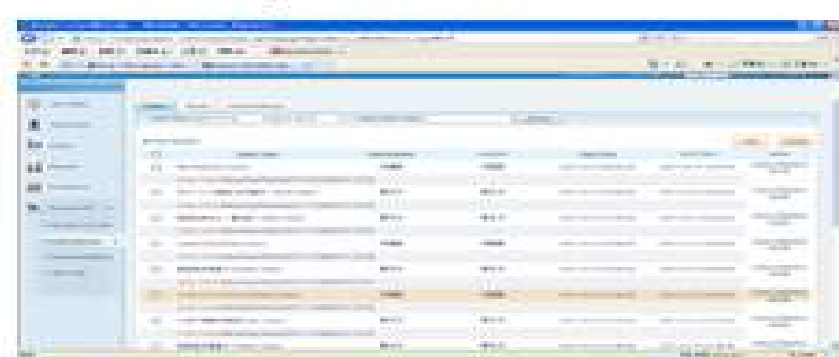
Main page



Orrange a class



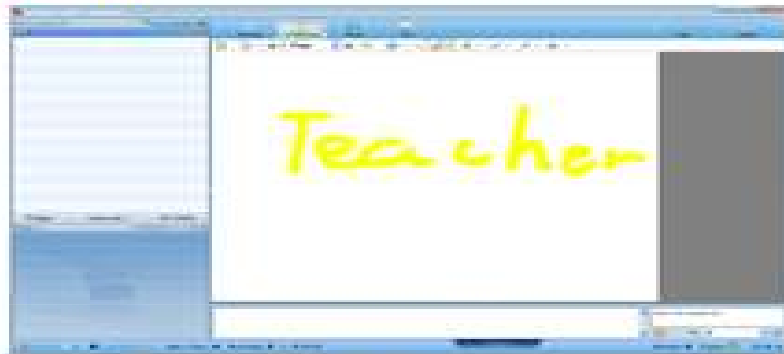
reports



Site manage



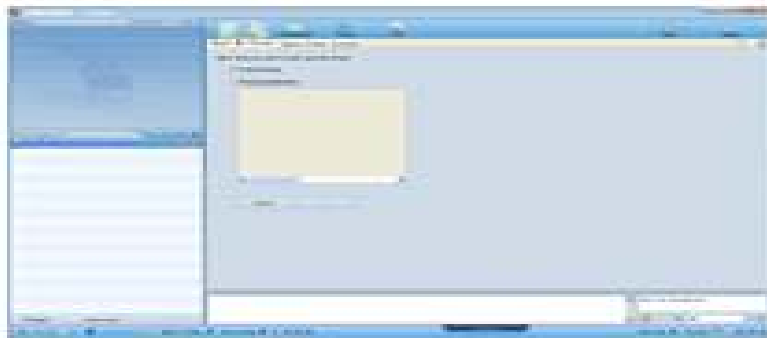
client



White board



test



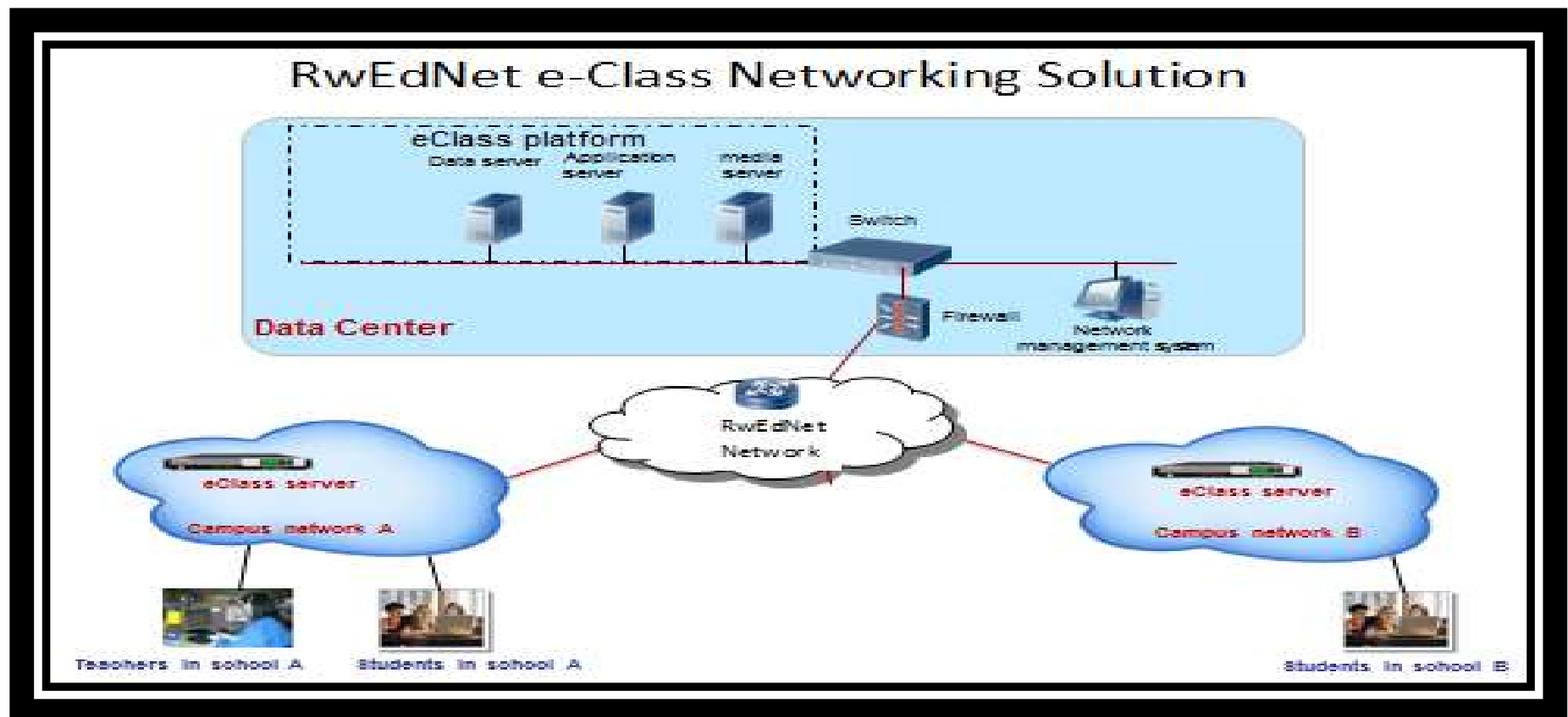
Application share



Media courseware share



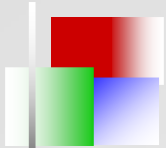
Prospects at the Future





Critical Areas to be addressed

- Ratio of Computers to Users
- Power Outages
- Incentive mechanisms that encourages staff embrace educational technology
- Increasing demand for end-user access infrastructure
- E-learning Critical Mass to champion implementation at University of Rwanda.



Thanks