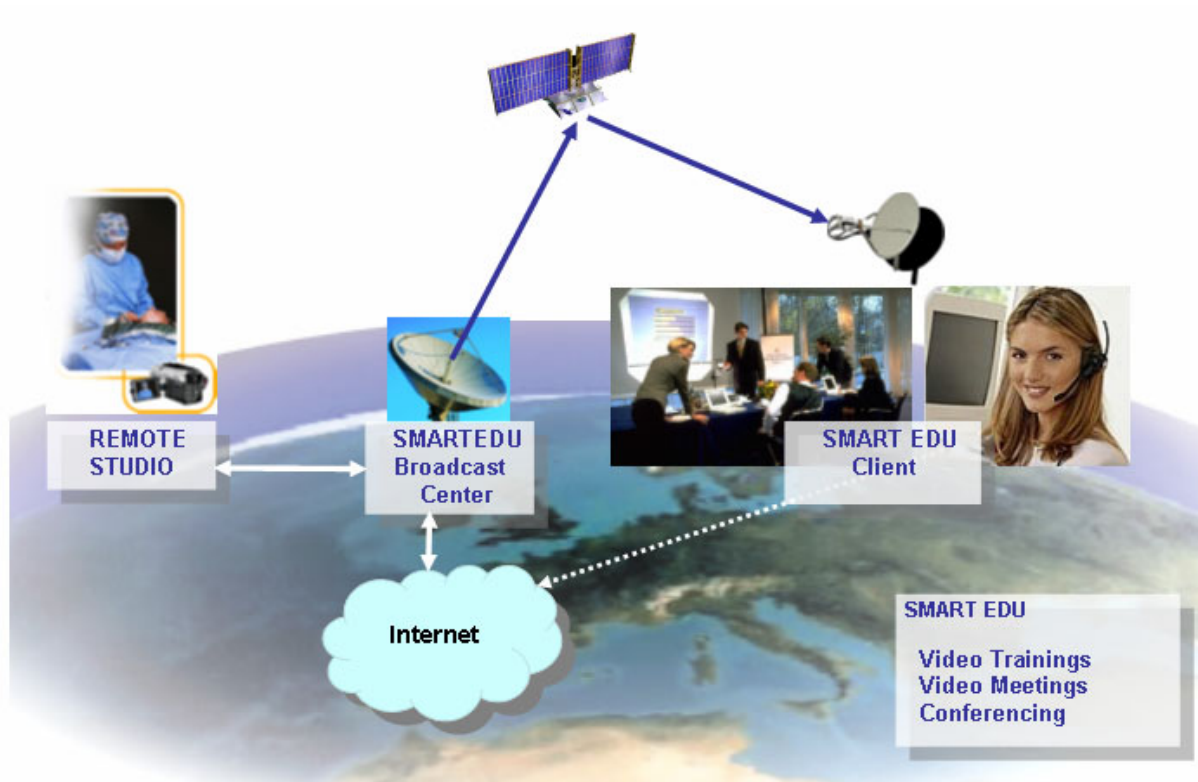




## SMART EDU e-learning & videoconference system



### Overview:

SMARTEDU combines advantages of a digital television and the Internet providing end-to-end turn-key solution for

-  Video Trainings / Conferencing / Video Meetings  
(Corporations, Government, Virtual Universities)
-  Teleworking, Project Management
-  e-commerce
-  Video on demand VOD

The most important feature is the support of real-time video streaming with TV-quality which is missing in most of e-learning platforms today.

It also enables the interaction between Trainee and Trainer typically missing in television based trainings.

SMARTEDU provides wide range of tools and technologies for a smooth provision of trainings, meetings and conferencing incorporating high quality video and audio as most native and appealing media. It integrates synchronous and asynchronous function like Live Broadcast, Interactivity with Trainer, Client's Screens Remote control, Files broadcast, Web based tools such as Forum, Knowledge Base, as well as chatting and interactive channel. SMARTEDU has built-in Learning Management System (LMS) and supports formal as well as informal learning.



### SMART EDU topography:

SMART EDU consists of three main parts (as described at diagram above):

-  REMOTE STUDIO
-  BROADCAST CENTER
-  CLIENT

### Broadband Multicast IP platform:

SMART EDU is a Broadband Multicast IP platform suitable for Broadband Internet networks

-  Cable modem
-  ADSL
-  Satellite Internet
-  Intranet networks etc.







SMART EDU requires in average 1-2 mbps for single audio/video channel real-time streaming. It provides TV quality video using MPEG compression.



#### REMOTE STUDIO

Remote Studio provides intuitive interface for the preparation and live broadcast of video based trainings, conferences and meetings. It enables the remote control of the Client screen layout for each component. Available learning components are:

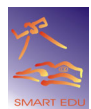
Synchronous:

-  Live & Recorded Video
-  Live & Recorded Audio
-  PC Screen Video
-  Quick Test
-  Question
-  Chat

Asynchronous:

-  Forum
-  Knowledge Base
-  File Broadcast

Remote Studio is connected to the SMARTEDU BROADCAST CENTER via a two-way broadband link. This can be through satellite (DVB RCS, SCPC), land-line (ISDN, ATM, E1 etc) or microwave on a short distance.



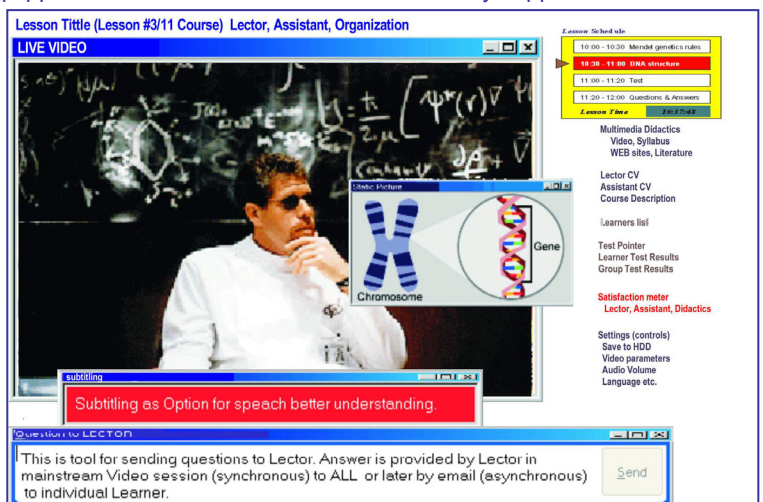
#### BROADCAST CENTER

The Broadcast Centre is a communication centre of SMART EDU. It broadcasts signal received from REMOTE STUDIOs via a Digital TV or multicasts via an IP network. It links REMOTE STUDIO with Clients within a continent. Broadcast Centre is equipped with Web servers for Web functionality support.



#### Trainee Site SW

Trainee Site SW Is comprised from SMART EDU GW and a Client SW. The Client is an application integrating all learning components. It can run in single user or LAN configuration.



The screenshot displays the SMART EDU interface. At the top, it shows the lesson title: "Lesson Title (Lesson #3/11 Course) Lector, Assistant, Organization". Below this is a "LIVE VIDEO" window showing a lecturer in front of a chalkboard with mathematical equations. To the right of the video is a sidebar menu with various options: "Lesson Schedule" (with a time table), "Multimedia Didactics" (Video, Syllabus, WEB sites, Literature), "Lector CV", "Assistant CV", "Course Description", "Learners list", "Test Pointer", "Learner Test Results", "Group Test Results", "Satisfaction meter" (for Lector, Assistant, Didactics), and "Settings (controls)" (Save to HDD, Video parameters, Audio Volume, Language etc.). At the bottom, there is a "Question to LECTOR" box with a text area and a "Send" button. A red banner at the bottom of the video window reads "Subtitled as Option for speech better understanding".