

Piemonte University, Italy, Establishes Telemedicine and Distance Learning Program for Nursing and Physiotherapy with RADVISION Videoconferencing Solutions

Highlights:

Client:	Universita degli Studi del Piemonte Orientale, School of Medicine and Surgery
Product:	RADVISION viaIP Multipoint Conferencing Unit (MCU) RADVISION Enhanced Communication Server (ECS)
Number of sites:	11 endpoints at four locations
Application:	Teledidactics: Remote University Study Programs

Why Piemonte Chose RADVISION:

RADVISION products' technological, reliability and quality levels were the determining factors. This system needed to be stable and reliable to sustain eight hours of University courses each day of the academic year.

Introduction:

Universita degli Studi del Piemonte Orientale, or Piemonte University, is a prominent institute of higher learning headquartered in Novara, Italy. The University has campuses and associated hospitals around the country and wanted to offer professional training courses integrated with University degree programs for nurses and physiotherapists to its constituents through videoconferencing.

The University needed an interactive system that was of such high quality that the barrier of the technology would dissolve and teachers and students would conduct themselves as if they were in the same classroom. The videoconferencing system would also have to be able to accommodate standard classroom teaching aides such as static slides, video, or live feeds from diagnostics or operating theaters.

Piemonte University engaged RADVISION partner HS Digital to design and implement the videoconferencing network for the teledidactic program. HS Digital suggested RADVISION's powerful and economical *viaIP* Multipoint Conferencing Unit (MCU) for bridging the participants into a single conference. The RADVISION Enhanced Communications Server (ECS) was chosen to manage the network traffic and access for quality controls and system monitoring.



Challenge:

Piemonte University's plan has many critical success factors;

• **High availability of the system**

The system needs to sustain 8 hours a day of videoconferencing programming every day of the academic year with continuous setting changes and transmission format changes to accommodate the regular lesson plan.

• **Quality of transmissions**

The quality had to be 'true to life' to make the technology element 'disappear' and allow students and teachers to conduct themselves as they do in a traditional classroom environment.

• **Synchronization of audio and video**

Many lessons were supported by PowerPoint presentations, slides or films on medical subject matter. It is critical that the instructions and explanations are perfectly coordinated with the images displayed for a seamless learning environment with comprehensible and accurate information.

• **Intuitive and simple to operate**

Students and teachers alike needed to feel completely at ease with the system and operating peripheral equipment to integrate into the lesson plan to provide the maximum degree of participation to all of those involved in the courses.

• **Easy diagnostics and administration**

The technical staff of the University need to be able to support and maintain the system without having in-depth experience in videoconferencing engineering. It should be manageable and scaleable to accommodate growth and expansion of the program.

After conducting a series of market, service and product comparisons coupled with the system requirements, the team at Piemonte University chose RADVISION's viaIP MCU and ECS to provide the network infrastructure of the videoconferencing system.

Solution

The stringent requirements of the University program demanded a feature-rich solution that would still be cost-effective. Although the initial program called for only four sites to participate, they wanted a solution that would be flexible and scaleable to accommodate new peripherals and the possible expansion of the network.

The RADVISION viaIP MCU is part of a chassis-based system that is tailored to the customer's needs. The viaIP solution can incorporate voice, video and data bridging, gateway functionality for connectivity between IP and ISDN networks and data conferencing servers for T.120 data sharing.

viaIP Multipoint Conferencing Unit - renowned for its high-density, unlimited scalability, and its proven performance, the viaIP MCU bridges conferences for voice, video and data between three or more endpoints.

The immediate network architecture only called for an IP (H.323) multipoint conference bridge but the visionaries at Piemonte University understand the importance of having the option to open their network to other teledidactic or research programs that may have an existing ISDN network, and therefore installed a RADVISION gateway as part of the system. It was also important to know that they could add additional features or MCU ports as their own program developed.

viaIP Gateway –The RADVISION viaIP Gateway provides connectivity between IP and ISDN networks. The Gateway allows organizations with legacy ISDN-based videoconferencing systems to communicate with IP-based systems for voice, video or data communications.

Managing and monitoring the network was also a serious consideration in the University's choice of the RADVISION ECS. The importance of being able to control access, traffic flow, optimize bandwidth usage, and monitor the entire system from a single administrative point was very efficient and attractive.

Enhanced Communication Server (ECS) – The RADVISION ECS is an advanced management application with H.323 gatekeeper functionality that is essential for the management of IP telephony and multimedia communication networks. The ECS can set policies and control network resources, such as bandwidth usage and traffic direction, to ensure optimal performance.

The RADVISION products were also compatible with a broad spectrum of peripherals that were essential teaching aides for the courses. The University deployed 11 Polycom ViewStation endpoints at the four locations and housed the RADVISION solutions at the main campus.

Results:

Today, the aggressive teledidactic program offers four concurrent courses at three locations. The professors are located at the main University campus in Novara and students are in Biella, Alessandria, and Verbania. The courses are for first, second and third year nursing students and first year physiotherapy students. Each videoconference lesson runs from 9:00 a.m. to 6:00 p.m. every working day from October to July. Through the teledidactic program, the University is able to accommodate over 200 participants in each of its courses. These courses would normally be inaccessible to students due to economic reasons and physical circumstances.

In the near future, the university plans to extend this program to radiographers, lab technicians and other medical students. One of the obvious advantages of this arrangement is the ability to enable students who would not normally have access to the classroom environment because of handicaps, incarceration, remote geographic locations or areas with poor transportation. Additional advantages include optimization of costs and individual and communal time, optimization of teaching personnel, uniformity of the lesson content, and reduction in space and service requirements for students,





“Selecting a system (not just a product) based on a design, which takes into consideration the possibility of its expansion and integration with the most innovative technologies, has proved to be a wise decision,” said Dr. Emanuele Albano, Director of the Department of Medical Sciences. “We intend to continue to expand the teledidactic program to encompass a wide variety of courses for a broad base of disciplines.”

About RADVISION

RADVISION (Nasdaq: RVSN) is the industry’s leading provider of high quality, scalable and easy-to-use products and technologies for videoconferencing, video telephony, and the development of converged voice, video and data over IP and 3G networks. RADVISION has two distinct business units. RADVISION’s Networking Business Unit (NBU) offers one of the broadest and most complete set of videoconferencing network solutions for IP- and ISDN-based networks, supporting all end points in the industry. The company also provide businesses and service providers with integrated solutions that deliver converged IP-based video telephony applications to employee computer desktops and residential broadband homes worldwide. The Company’s Technology Business Unit (TBU) provides protocol development tools and platforms, enabling equipment vendors and service providers to develop and deploy new converged networks, services, and technologies. For more information please visit our website at www.radvision.com.

For more information Piemente University, please visit www.unipmn.it.

For more information about HS Digital, please visit www.hsdigital.it.

