eLearning platform at its best, using Axis network cameras.

CENAFER's students now have much easier access to knowledge.

Organization:
CENAFER - The National Railway Training Center

Location:
Romania

Industry segment:
Education

Application:
eLearning platform, remote teaching

Axis partner:
SC Nu Am Chef Azi Project SRL

Mission

Up until now, all courses organized by CENAFER, The National Center of Railway Qualification and Training, required the presence of trainers in each of the eight CENAFER offices around the country. This meant an investment of both time and money. The mission of this project was to find a way to optimize all these costs, including travel and accommodations for trainers.

Solution

The answer to CENAFER's challenges was offered by the technical advantages of Axis network cameras. In specific training classes at each of the eight regional offices, two types of cameras were installed and configured: AXIS P3364-V and AXIS M3004-V Network Cameras. This new set-up allowed the trainers and the students to be present at any of the CENAFER regional centers and not in a specific one, as previously required.

AXIS P3364-V streams live images of the teacher to the students, while AXIS M3004-V plays the opposite role of streaming images of the classroom/students to the teacher.

Result

People working in the railway industry need to attend training workshops on a regular basis to obtain various certifications. Thanks to the Axis solution, the company can now deliver training workshops to much larger groups of students in a shorter period of time, while significantly reducing CENAFER's associated costs. From the students' perspective, the waiting time for attending a workshop is now significantly reduced.

AXIS COMMUNICATIONS

66125/EN/R1/1512

> "We are confident that the new online teaching system will prove itself in time. The technology upgrade needed for educational and training processes is an undeniable requirement."
>
> Vasile Dinu, CENAFER Logistics Director.

High-class eLearning system with fewer costs and better transparency

CENAFER certifications focus on topics such as railways security or various ways to provide an effective transportation solution. Over the years, CENAFER centers have proven to be highly efficient. In the last year alone, 17,000 students attended training classes and obtained certifications in centers in Braşov, Bucureşti, Cluj, Constanţa, Craiova, Galaţi, Iaşi and Timişoara. In order to accommodate this large number of students, trainers had to travel frequently between all CENAFER centers since classes had to be organized on a regular basis in each of them. This has led to both time and money consumption, as well as trainer fatigue, which would have led in time to poor performance. Therefore, the need for optimization came naturally.

AXIS P3364-V – It's all about the details

This model was selected to record the activity of the trainer and transmit the images to the students. In order for an online learning solution to work optimally, high quality video streams are required. Three features led to the choice of AXIS P3364-V. The first feature was the high quality of the video footage - the camera uses a top-of-the-line sensor which offers superb video quality and has the capability to deliver video at 25/30fps in resolutions up to HDTV 720p. Most of the trainers tend to use hand and body gestures to highlight their ideas. Those rapid gestures can generate image noise. Thanks to high frame rate, the gestures do not affect the video performance, and the image seen by the students of their trainer remains fluid at all times. The second feature was the audio-streaming capability. The camera is a full duplex, two-way audio model, which allows the trainers to communicate with their students. Last but not least, the camera's performance under low light conditions was considered. Generally, if a room has insufficient light, the quality of the image is affected. Thanks to Axis' patented technology, Lightfinder, this challenge has been overcome. With Lightfinder, the colors of the video are vivid even in very low-light conditions due to the image processing and optical components.

AXIS M3004-V – Discreet and easy to install

This model was selected to record student activity and transmit these images back to the trainer. When facing the camera, the first reaction of the students is to become more reserved. This is a natural reaction and it takes a certain amount of time to get used to. Therefore, the smaller the unit the better. AXIS M3004-V was chosen to be installed in each of the eight CENAFER offices around the country because of its low profile and technical superiority. The camera is very small in size, measuring only 100 mm in diameter, and therefore enabling a low-profile surveillance.

Conclusion

Axis' technical superiority in terms of products and technology took CENAFER's learning classes to a higher level. Now, thanks to this installation, the students will have much easier access to knowledge. Also, CENAFER had already started to experience a significant reduction in costs by not having to pay for the transportation, accommodations or other expenses associated with a trainer's travels around the country. The total investment is expected to be recovered within 3 years.