

Telepresence in the classroom, Bicocca shortens the distance to business



The University of Milan is moving towards technological innovation by acquiring a Cisco TelePresence solution. Thanks to the architecture designed by Information Systems personnel at the University in collaboration with PRES - their technological partner - the Università Bicocca can eliminate the costs of travel for teachers and researchers and allow graduate thesis discussions remotely.

EXECUTIVE SUMMARY

Client: Università degli Studi di Milano-Bicocca

Sector: Education and research

Headquarters: Milan

Employees: 1,600

Challenge

- To provide a video conference system for research activities, teaching and for Boards of Directors
- Not depending on IT administrator support for the use of this solution
- Use an infrastructure compatible with standard protocols

Solution

- Cisco TelePresence
- Cisco Conference System
- Cisco WebEx

Results

- Use of Telepresence for graduate thesis discussion in co-supervision with international universities
- Increase of research activity without displacing personnel
- Technical support for users is not required for booking classrooms on the web or for using devices
- Participation in meetings and sessions via laptop, smartphone and tablet
- Use of streaming video content

Challenge

Among the main benefits provided by a Telepresence system, the elimination of travel expenses and the optimization of internal collaboration processes are aspects to which businesses and organizations of every sector and size are especially sensitive. Travel costs and savings in the employees' precious time, in fact, allow an invaluable advantage, with the added value of the potential environmental impact. Not contributing to the increase in CO2 emissions with the unnecessary use of transportation is one of the most important aspects taken into consideration in the philosophy of any company in the global market. In this scenario, technology takes a leading role, and Cisco drives the market of solutions able to provide the most efficient tools for remote video communication. Increasingly more organizations structured in headquarters with subsidiaries, or businesses distributed across a territory, can maintain high standards of collaboration and communication among colleagues, plan meetings, and organize work groups without giving up eye contact and important body language. All this over IP networks, using the internet and therefore without additional costs.

This is also the trend with the Università degli Studi di Milano-Bicocca, which in collaboration with PRES, a Cisco partner company, has brought to term an innovative room preparation project dedicated to Telepresence in order to allow more efficient collaboration between teachers, researchers and employees in the various departments. A testimony of one of the most innovative realities in the national academic landscape that was able to understand the challenge of innovation and create a new business model.

The Università degli Studi di Milano-Bicocca was founded in 1998, with the goal of making research the strategic basis of all institutional activity. Research understood as the extension of knowledge and qualification of teaching activity, as an instrument of relationship across the country and as a contribution for the development of the production system. The University has established strong ties with the entrepreneurial world and devotes special attention to the territorial reality, favoring, at the same time, the international dimension. In just a few years, very important results were obtained such as a high number of citations at an international level in publications by professors and researchers. In the Times Higher Education 2013 ranking of the 100 universities under 50 years old, the Università di Milano-Bicocca ranked no. 23 worldwide, and first in Italy.



“The integration of video solutions constitutes an important part of our IT strategy. To be able to see a person's expression when you are talking to them is as important as listening to what they have to say, especially when addressing delicate questions.”

Stefano Moroni,
Head of Telecommunications and Networks
Department of Università Bicocca

Not surprisingly, the in-house IT staff is certainly not lacking in networking skills. *“The University was already using applications and devices for IP video conferencing,”* said **Stefano Moroni**, Head of the Telecommunications and Network Department of the Università Bicocca, *“but in light of the increase of demand in this technological area, we were looking for a reliable, easy to use system that could reduce our project to a minimum in terms of user support.”* In fact, there are many moments of personal interaction due to the various faculties, work groups, departments and administrative entities, a chain of connections that links the Milanese university to others, to the NRC [National Research Council] and to numerous international academic institutions. *“The frequent need for trips abroad in order to participate in meetings or international projects has impelled the University to invest in a system that would allow our users to experience remote communications in high definition, where, as we have been able to ascertain, the interaction also depends on the quality of the connection”*

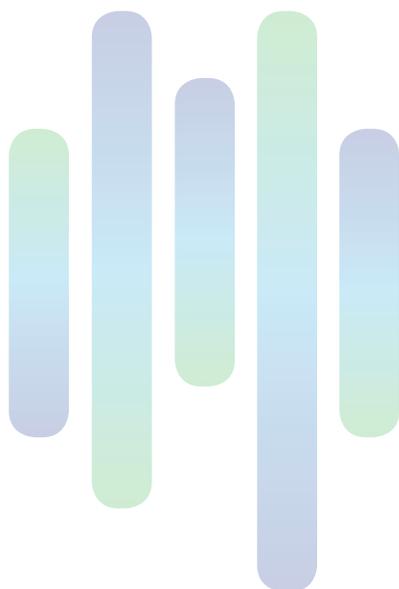
Solution

The results of market research, which involved the most well known manufacturers of Telepresence solutions, showed Cisco's most significant strong points in solutions in both the management and programming stage and in the quality of the communications themselves. PRES, the Cisco partner company specialized in integrating solutions and high value associated services with new information technologies, participated during the design and implementation stage. *“In collaboration with PRES we outfitted four rooms with Cisco Conference Systems, including a Board room, a very large area which also was equipped with custom tables made to hold laptops and microphones,”* continued Moroni. *“As it is a room also used for presentations, we had to abide by certain aesthetic restrictions.”*

The implementation includes two other rooms at the Milan campus and a fourth located at the Monza annex, enabling closer contact between the personnel of both places, an advantage to which is added the savings in time required for travel. *“During 2012 we extended the system to 3 class rooms in order to have our offer include live conferences and seminar streaming; we actually believe that this aspect is of strategic relevance for a University that considers computerization one of its strong points. We currently also have 4 medium-small rooms with large screens devoted to video conferencing and 3 large classroom amphitheatres, for a total of 1,500 seats, and three mobile stations, equipped with the same technology.”* At a time of government cuts on travel expenses, the possibility of reducing travel for teachers can be a deciding factor. Not just that. Having selected Cisco architecture, based on standard protocols, allows participants in video conferences to connect through portable devices such as tablets or PDAs.

Results

An additional strong point of the system supplied by PRES is the ease of managing reservations and of the use of the technology itself. One of the requirements requested by the University's Information Systems was that it would not be burdened with more devices to administer, in a context where, also due to cost control, an increase in personnel is not expected. *“The control panel and room reservation system through web interface is not an insignificant advantage when considering the possibility of independent management by users.”* Thanks to the ease of configuration and use, Telepresence system users do not require technical support either during the booking stage via web or for managing the tools during use. Video cameras, screens and microphones are activated automatically and only when the use session is started. But that's not all. *“An essential aspect for us was the compatibility of the system with standard protocols and the multi-vendor environment that characterizes*



the university network; especially interface with our authentication structure and authorization based on a LDAP directory service. Once the system was interfaced with Active Directory, we did not need to install any more software nor did we need specific licenses, unlike other solutions we evaluated during the scouting stage.”

That's a significant economic aspect that allows the University to simultaneously pursue its own philosophy of using open source software as much as possible, thanks to the total compatibility of Cisco tools. In the fourth quarter of 2012 the infrastructure was completed with the implementation of the Telepresence WebEx component in order to provide a more streamlined collaboration tool, not to mention that the infrastructure is also used for sessions supporting the International Graduate Thesis, various Masters and for provision of courses within some Research PhDs. Moroni also highlights the flexibility of the architecture, which will further stimulate its use even by those who, prior to the implementation, thought they didn't need it. *“The advantages of a high definition and efficient Telepresence system such as this one will surely generate scale economies and will allow cross-distribution to the whole organization.”*

That technological partners, in this case PRES, and also more and more business consultants for organizations choose innovation is now a given fact. It's no coincidence that the broadly positive opinion of the project also extends to the work PRES performed, which reciprocates the positive opinions in the value of its experience. *“We also consider the system conceived for Università Bicocca as a success story,”* confirms Christian Panigada, Key Account Manager for PRES. *“A project that enabled us for the first time to address this type of demand in an academic setting of this scope and with a high level of internal skills. All this allowed us to add to the organization's know-how in this sector, in order to create a winning model for our activity.”*

But the benefits will also cascade through the University. The use of Cisco TelePresence architecture may not be limited only to internal use. Already classrooms are requested and used by other Public Administration agencies, and it's possible that a technology this innovative may become a new business model for Bicocca, which could extend a video-conference service offered also to private users for remote conferences and meetings.

Looking for more help?

More information about Cisco architecture, solutions and services can be found at: www.cisco.com/go/collaboration



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