Cisco scored the decisive goal at the San Siro
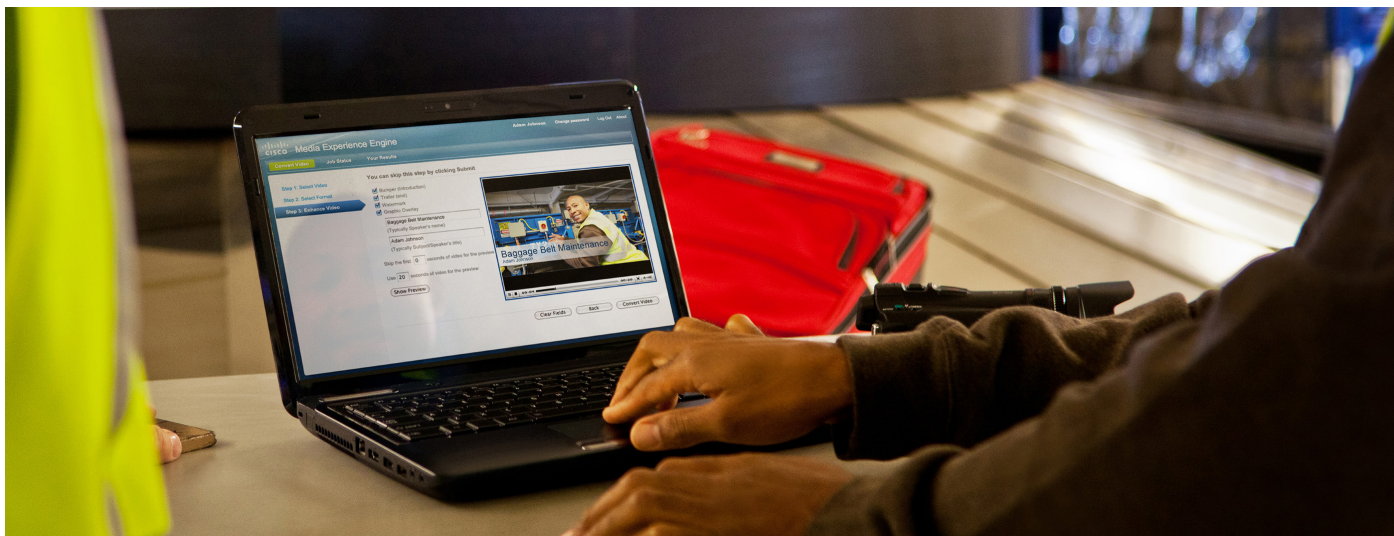
One of the most famous national soccer arenas provides reliable high-performance connectivity to journalists and sports photographers, in line with a modern Bring Your Own Device (BYOD) strategy.

IN SUMMARY

Client: Giuseppe Meazza Stadium

Industry: Sports facilities

Headquarters: Milan

The Challenge

- Provide Internet access to photographers and journalists
- Implement a comprehensive BYOD architecture for automatic profiling of users and devices
- Guarantee access to users with tailor-made security policies
- Comply with UEFA guidelines for 4-star stadiums

The Solution

- Cisco 5508 Series Wireless LAN Controller
- Cisco ASA 5510
- Cisco 3502 and 3501 series access points
- Cisco Identity Services Engine (ISE)

The Results

- Use of the high-performance network
- Guarantee of security criteria imposed by applicable regulations
- Maximum reliability during sports events

The Challenge

Giuseppe Meazza is the Milan soccer stadium and the highest-capacity sports facility in Italy, with over 81,000 seats total. It is a veritable soccer temple, one of the most famous and prestigious soccer fields in the world, host to the greatest successes of the Milanese teams - AC Milan and Internazionale. The San Siro Stadium, as it is commonly called, comes from the name of the neighborhood in Milan, the capital of Lombardy, where it stands and was opened in 1926. In 1980 it was named for Giuseppe Meazza, a historic soccer player from the 30s who played on both Milanese teams. The facility has undergone renovations over the years, including the construction of the third ring on the occasion of the World Cup in 1990 and more recent works of modernization of the structures with the goal of meeting the requirements of the UEFA guidelines for 4-star stadiums.

Among these works was the installation of a wireless network architecture to be made available to media representatives present during sports matches. For facilities of the caliber of San Siro, it is in fact essential to provide access to the Internet for photographers and journalists to report on the games, make use of online resources and tools and send and transfer large files such as live-action images during play, in real time. And all that using a high-performance platform without the risk of downtime during peak usage, with full security. With these objectives, Alpitel and Telecom Italia designed a network infrastructure based on Cisco Borderless Network solutions that has all the features to meet the needs of its users, comply with the provisions of industry associations, and provide the Milanese sports facility with a full-scale BYOD architecture.

The Solution

The area in which the project operated was quite large considering the requirements, including connectivity and a network access system with adequate performance and protection levels that were anything but ordinary. *"The sport clubs that manage the stadium had to provide the availability of Internet access, to both journalists working from the press room and the press box and to photographers standing on the sideline during the games"*, said **Gerlando Bongiorno**, the Telecom Italia engineer who manages the information systems of the Milanese stadium.

> "We tracked an average of 400 users connected at the same time for a total of about 8000 simultaneous connections; the average transmission for each connection is 150 or 200 Mb per session. Despite this traffic level, we were able to ensure a consistently high level of operational reliability and transmission speed."

Gerlando Bongiorno
Telecom Italia

"The teams playing at home and hosting the matches must meet the requirements set by UEFA for media operator support, requirements that are mandatory for international competitions.".

This brought stadium management in Milan to adopt a solution to cover immediate needs, with the objective in the meantime of setting up the definitive network architecture. During that phase, Telecom Italia turned to Alpitel, a Cisco partner, to supply the equipment to be integrated into the new infrastructure project. *"Designing a solution for a stadium is at a different level of complexity from standards that pertain to corporate environments"*, explains **Andrea Picco**, Project Manager at Alpitel, *"as employees work on-site and there is a well-defined internal policy for network communications and connection to the Web"*. The implementation of a "guest" service, extending network interface with both physical security services and for internal communications, had Alpitel technicians facing the problem of connecting users around the stands, on the field, and inside the stadium rooms, as well as planning a method for managing flexible, secure access to the network for various users, depending on the event in progress and their role. *"The first hurdle was overcome brilliantly due to Alpitel's experience in the design of communications networks and the in-depth knowledge of the stadium's infrastructure provided by the Telecom Italia staff"*, adds Picco. *"The second was overcome by applying innovative Cisco solutions for collaboration and security to the specific reality of an international sports stadium"*.

The core of the solution features two Cisco 5508 series Wireless LAN controllers and two new-generation Cisco ASA 5510 units for firewall functionality. Access to the network is provided by 3502 and 3510 series Cisco access points, while use of the Cisco Identity Services Engine (ISE) ensures adequate levels of security to the platform on which the services are provided. Cisco ISE is the system that makes it possible to enable control policies that meet compliance requirements, enhancing the protection of the network and its equipment and simplifying operational management.

Thanks to Cisco ISE, every access to the Internet by users in the stadium is actually carried out by dynamic generation of numeric passwords for each individual device sending a connection request. Cisco ISE thus makes it possible to profile users and devices and enable different access depending on the use of the device itself and its compliance with the security regulations in force. Using this kind of approach, the San Siro Stadium succeeded in implementing an infrastructure capable of meeting BYOD requirements, in which policies are configured a priori as a requirement for the use of any type of device.

The Results

The solution proved reliable and fully functional, and permitted the Milanese clubs to achieve the objectives identified during the design phase. But this is the first time we can literally say that the results have been obtained in the field. *"Journalists and photographers were very satisfied with the platform we provided for their use"*, confirms Bongiorno. *"The system allows them to use all the resources of the network with high performance, even for complex operations such as sending very heavy-weight image files to their newspaper, for example, when real-time media coverage is needed for the events in progress"*. Similar opinions have been expressed by client teams, who can now host official meetings without the risk of fines and problems due to insufficient organizational capacity. And that's not all. As the new architecture is completely redundant, it's now downtime-proof. *"The reliability of the infrastructure protects us from possible problems from the failure from any individual device, ensuring the service without any risk"*, adds Bongiorno.

The benefits are also confirmed by the numbers now taking advantage of the new network infrastructure. *"We've recorded an average of 400 users connected simultaneously, with peaks of 850 users, for a total of about 8,000 simultaneous connections"*, emphasizes Bongiorno. *"The average transmission for each connection is 150/200 Mb per session. Despite this traffic level, we are able to ensure a consistently high level of operational reliability."*

On the security side, the system ensures access only to users who are authorized, providing maximum flexibility. This allows protecting the devices using the networked services against threats from unwanted users, and allows photographers and journalists to work undisturbed. The new infrastructure has proved effective, because it is actually possible to provide a single protection policy management system for all aspects: from network access to profiling the devices the users use for their connection. This allows ensuring stadium guests the use of private information, with the utmost protection of intellectual property for materials in transit on the network.

The connectivity needs of the sports structure found an effective response in Cisco solutions. The network automatically classifies the devices requesting access in accordance with a tailored policy. So the San Siro Stadium is in the vanguard with an infrastructure developed with an eye on BYOD, allowing its users maximum flexibility while still maintaining high levels of security. A visionary project in which Cisco technology and the role played by Alpitel were critical.

For more information

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