

SYSTIMAX®

SOLUTIONS

Italy's Leading Cement Company Lays New LAN Foundations

Italcementi Group chooses the SYSTIMAX® LazrSPEED® Solution to upgrade network infrastructure

Italcementi Group is the world's fifth largest cement manufacturer and number one in Italy for cement, concrete, aggregates and building materials. Established in 1864 and listed on the Milan Stock Exchange since 1925, the Group includes companies with operations in 19 countries. It provides over 17,000 jobs, runs 60 cement works, 13 grinding centers, 4 terminals, 155 aggregate quarries and 547 concrete-mixing centers.

To manage its 4-billion Euro worldwide business efficiently, Italcementi relies on technical resources and skills at its headquarters at Bergamo in Italy. It has also developed relationships with suppliers offering the best technology solutions for both its local businesses and the group as a whole.

In 2003, when fast growing demand for bandwidth at the 10,000 m² Bergamo campus required a cabling upgrade, the company looked for a high quality, cost effective solution. This had to ensure fast response to users connected via 2,000 data outlets, and give maximum flexibility in positioning servers across the campus.

The Group's IT department knew that the bandwidth bottleneck was in the network backbone. To remedy this, they decided to rebuild links connecting their server rooms to 30 satellite communications rooms across the site. Upgrading the backbones with high performance fiber would give networked applications better response times without the cost of a completely new cabling infrastructure. To make the upgrade, Italcementi chose the SYSTIMAX® LazrSPEED® multimode fiber solution.

"We have to give users faster more powerful systems but, at the same, take up less space in computer rooms," said Bernardino Prestini, in charge of Italcementi's networks and infrastructure for the whole of Italy. "Today we are installing servers in rooms that until a few years ago could not even have been considered for this purpose. As a result we need a network infrastructure that lets us choose any building on the campus to house our servers."

After assessing the alternatives, Italcementi decided that LazrSPEED cabling was the best solution for LAN backbones in the Gigabit era. Using this solution, its network can now support 10 Gb/s backbone transmission speeds, ensuring fast connections in the most heavily loaded parts of the network.



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The new fiber backbone was designed by Sirecom, a SYSTIMAX Prestige BusinessPartner based in Turin. The company, a member of the Sintesi Group established in 1994, specialized in designing and implementing cabling, networking and telecom systems. Sirecom was involved in the Bergamot project from the early stages and, during installation, it worked alongside Italcementi established systems supplier, Suardi. For more than 30 years, Suardi has supplied the Italcementi Group with a wide range of high technology plant and systems.

During the project, up to 20 people were engaged on design, procurement and installation of the new backbone. They laid the fiber cabling in ducting running both above and below ground, forming a double loop configuration. This gives redundancy both in terms of fiber connections and physical paths linking servers with communications rooms, ensuring continuity of service even when parts of the network are damaged.

The fibers are terminated with compact, high performance SYSTIMAX LC connectors both at the server end and in the satellite communications rooms. These communications rooms connect a wide variety of workstations and PCs in all departments via the existing horizontal cabling.

“After comparative evaluation, we chose the SYSTIMAX LazrSPEED Solution for our new infrastructure because of its high performance and reliability,” said Bernardino Prestini. “It is a good investment for years to come since it is guaranteed to exceed OM3 standards. It lets us implement 10 Gb/s technology with low-cost VCSEL laser technology rather than using more expensive singlemode opto-electronics. What's more, thanks to the synergy between the manufacturer and vendor, the system precisely meets our needs and was implemented with little call on our in-house resources.”

The LazrSPEED Solution is the first multimode optical fiber system in the world to support 10 Gb/s serial transmission at 850 nm over distances of 550 meters. It not only supports the legacy cabling at the Bergamot campus, it has the performance to serve new, faster horizontal links when these are installed in the future.

The new backbone will, for instance, let the Bergamo campus use the full potential of SYSTIMAX GigaSPEED XL copper cabling for connections to the desktop. Giampiero Sforte of SYSTIMAX® Solutions in Italy sees this as a key reason for upgrading network backbones with high performance multimode fiber.

“As users install new, more bandwidth intensive applications, data traffic bottlenecks in the network backbone connections threatens to slow everything down,” he said. “The LazrSPEED Solution makes the move to 10 Gb/s fiber in the backbone easier to afford. It helps companies prepare their network for new generations of applications and ensure these deliver the fast, reliable response that users expect.”

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