

Eaton Powers Ahead in China with CommScope's
10G Copper Solution for Desktop Connections
Eaton selects sustainable SYSTIMAX® GigaSPEED® X10D
and LazrSPEED® Solutions for their new Asia Pacific
facility in Shanghai



As part of its policy of installing sustainable systems, Eaton specified 10G network connections to the desktop at its new Asia Pacific HQ. SYSTIMAX copper and fiber solutions delivered the end-to-end performance and reliability required for the network infrastructure.

“ With end-to-end 10Gb/s performance we can introduce new generations of applications without the enormous waste involved in unnecessary cabling upgrades ”

— Mr Billy Bao,
IT Manager of Eaton China

Eaton Corporation is a diversified power management company with 2009 sales of US\$11.9 billion. Eaton has approximately 70,000 employees and sells products to customers in more than 150 countries.

Eaton began operations in China in 1993 through a joint venture agreement to manufacture steering control units and hydraulic motors. Since then its presence has grown significantly in the region through acquisitions, joint ventures and wholly owned subsidiaries. To support its expanding operations in China and the Asia Pacific region, Eaton has recently completed the new Asia Pacific regional headquarters facilities in the International Business Park of Changning District, Shanghai.

As with all Eaton's business, sustainability is a key factor in the design and construction of the new 6-floor, 10,000m² HQ building. The emphasis on use of sustainable materials and equipment throughout the project includes its 1,300-outlet network infrastructure.

"By installing a very high performance network infrastructure we can move information around more quickly," said Mr Billy Bao, IT Manager of Eaton China. *"That makes the organization more efficient – and an efficient organization is eco-friendly because it achieves more without using additional resources."*

To meet its connectivity performance requirements, Eaton chose CommScope's SYSTIMAX GigaSPEED X10D Solution. This exceeds the full specifications of the Category 6A / Class Ea standard for 10Gb/s data transmission over copper connections.

By delivering two times the bandwidth of Category 6 solutions with cabling only 20% larger in diameter, the GigaSPEED X10D Solution reduces use of materials. Even more important, by taking 10Gb/s connections all the way to the desktop, it gives the network infrastructure a longer life.

"With end-to-end 10Gb/s performance we can introduce new generations of applications without the enormous waste involved in unnecessary cabling upgrades," said Mr Bao. *"The new HQ is built and owned by Eaton itself, so we could install sustainable systems that will serve our needs in the long term and minimize overall costs. The decision to take 10G GigaSPEED X10D connections to the desktop was an example of this policy in action."*

On completion of the new HQ, Eaton applied for its certification as a Silver LEED (Leadership in Energy and Environment Design) building. This certification is awarded by the internationally recognized US Green Building Council.

As well as choosing SYSTIMAX solutions for sustainability, Eaton chose them for their strong record in providing end-to-end 10G connectivity to multinational corporations. CommScope was among the first to deliver 10G copper connections in China with its installation at Kostal Huayang Automotive Electric Co, also in Shanghai.

CommScope's BusinessPartner, AT&T, was the infrastructure designer and general contractor on the Eaton project. Shanghai KOF Electronic & Engineering, also a CommScope BusinessPartner, was responsible for cabling installation. Together, the two companies designed and built an infrastructure that includes 100km of GigaSPEED X10D LSZH (Low Smoke Zero Halogen) cable connecting 1,300 floor mounted information outlets.

In addition to the 10G copper cabling, 500m of SYSTIMAX LazrSPEED 150 backbone cable connects the building's five communications rooms. The LazrSPEED multimode fiber solution exceeds specifications in the OM3 fiber cabling standard and can support 10Gb/s data transmission without need for expensive electronics.

The comms rooms house 80 GigaSPEED 1100GS5-24 Modular Angled Patch Panels contained in CommScope racks and enclosures. By angling connectors towards the sides of the panels, this patching solution reduces patch cord clutter in the cabinets. CommScope Vertical Cable Management hardware is also used to ensure riser connections are neat and accessible.

The completed network now supports a range of critical systems including the data center, IP phones, video conferencing and CCTV. To minimize the effect of any damage done to the cabling and ensure continuity of these key systems, the network design incorporates redundancy in the backbone connections.

The finished infrastructure benefits from the SYSTIMAX 20-year warranty and application assurance. It is also supported by fully trained and certified staff at local BusinessPartners supported by CommScope's global channel organization.

Commenting on the project, Laura Chen, Regional Sales Director of Greater China, CommScope Enterprise Solutions Division said: *"We were able to provide Eaton with a high performance solution that maximizes efficiency and minimizes long-term environmental impact. As well as having a longer useful life, SYSTIMAX infrastructure is designed from end-to-end to give consistent, reliable performance – so time and energy are not wasted on infrastructure issues."*

"Multinational corporations such as Eaton have recognized that reliable, high performance network infrastructure is an excellent investment - not only to maximize profitability but also to reduce environmental impact."



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