

# Case Study >

## PROJECT OVERVIEW

- First MIIM™ install for China
- Campus environment Managed Physical Layer
- Over 82 Km Category 6 copper and Singlemode fibre installed

## Technology and Innovation Showcase at Shanghai World EXPO Center

World Expositions have long been established as grand events for economic, scientific, technological and cultural exchanges, serving as important platforms for exchanging innovative ideas and showcasing future trends. The 2010 Shanghai Exposition is the first registered World Exposition in a developing country. Such an acclaim promotes a strong message across international communities that China is poised and confident in its development initiatives.

Nestling on the banks of the Huangpu River, this waterside Expo Center is one of Shanghai's key exhibition expo pavilions. It is a multi-functional venue that also caters to a wide range of social and corporate events. The 184 day Expo focuses on a "Better City, Better Life" and through various sub-themes, creates blueprints for future cities and harmonious urban life styles, providing an extraordinary educational and entertainment platform for visitors from across the globe. The Expo aims to achieve the greatest participation in the history of world expos, and estimates over 200 nations taking part, with a staggering 70 million visitors.

The Expo Center or 'park' is made up of multiple halls and a dedicated cutting edge News and International Broadcasting Center housing radio, television, internet and programme production studios, enabling tens of thousands of journalists from around the world to broadcast live.

### Why Molex?

Boasting state-of-the-art facilities and a heavy reliance on communication performance, data integrity, and security the EXPO organisers were keen to implement a dynamic network suitable to the running of such a large and important facility. The structured cabling system was designed to be the 'nerve center' of the whole park, and therefore was to have the most robust and advanced infrastructure in place. Project manager Mr Sheng Xiangfu from Shanghai Yanhua Intelligence Technology Co., Ltd, the Certified Installer selected for implementing the Molex infrastructure, commented that "the Molex solution was always the system of choice for such a prestigious project. The 25 year warranty combined with revolutionary monitoring and management tools plus leading reputation throughout Greater China ensured that together we could meet and exceed all of Shanghai's, Greater China, and indeed the world's expectations, of this being the most advanced and historical Expo ever presented".

### Advanced Network Choice

To accommodate the demanding requirements, the design of the EXPO center's structured cabling is organised into a 3 tier network architecture supporting the center, convergence rooms and IDF (access layer). Data from the Center utilizes 3 networks; internal and public, plus equipment and security and telephony, each operating independently, with common cabinets and trunk routes.



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Each of the internal, public, and service networks link functional areas, over Singlemode fibre optic cable which is provisioned to support future 40G – 100G performance. In total, the fibre installed equates to over 82 kilometres. The Telephony network comprises 25 pair UTP Low Smoke Zero halogen copper cable in the vertical backbone between the IDF layer and the main Expo center and Category 6 UTP copper cable within the horizontal layer.

To manage this comprehensive and layered network, in a secure real time and transparent fashion, the Expo team relies on Molex's Advanced Physical Layer Management solution, MIIM™. The MIIM solution was implemented to offer intelligent monitoring of the cabling system within the information center, fire control center and convergence rooms. Sheng Xiangfu stated that "MIIM is perfectly primed to manage large campus environments, and where speed, security, accuracy and resilience were some of the key data transport criteria for the Expo team; it was without a doubt the only solution on the market to offer these benefits". With the support of MIIM, hundreds of critical channels on the backbone of internal, public, equipment and security network are monitored continuously to ensure the successful operation of the 2010 Exposition Shanghai.

### Molex – the winning solution

The Shanghai EXPO Center was designed with innovation and reliability in mind. Given that this would be an iconic building for Shanghai, providing a long term infrastructure solution was an essential component to maintaining its status as an internationally renowned convention center. Molex's advanced infrastructure solutions were chosen to support the EXPO center and its image as one of China's most significant network infrastructure investments. As the most important building in the 2010 Exposition the center achieved 8 key performance indicators for standardisation, advanced technologies, practicality, flexibility, compatibility, security, reliability, and cost efficiencies. The MIIM Advanced Physical Layer Management solution contributed extensively to achieving these prestigious performance indicators.

Timothy Lam, Regional Sales Director for Greater China said that "working with Yanhua Intelligence Technology and World Expo gives me great pride. To use our latest and most innovative advanced technology on this prominent project is an enormous honour for Molex. The Shanghai Expo 2010 will be the focus of the world's attention for nearly 6 months of the year. Our advanced solutions and leading structured cabling system future-proofs the center for years to come and compliments China's vision of sustainability in human development in urban areas".



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