

Shanghai World Financial Center secured by Bosch



BOSCH

Invented for life

Industry:

Commercial Building

End User:

Shanghai World Financial Center (SWFC)

Designed by Kohn Pedersen Fox associates, the 101 storey, 492m high Shanghai World Financial Center (SWFC) is currently the world's third tallest building. Completed in July 2008, it is today a prestigious landmark shining against the Oriental Pearl Tower and Jin Mao Tower in Shanghai. This multi-purpose commercial complex features two floors of underground and three floors of over ground shops, a conference center, offices on floors 3 to 77, a hotel on floors 79 through 93 and observation & exhibition areas on floors 94 to 100.

Business Objective:

A landmark building like SWFC had to have the highest level of security and safety features for its occupants, so during construction the tower was redesigned to withstand potential disasters like stresses of wind pressure. Critical safety features were added, including 12 fireproof shelter and 2 exterior lifts to serve as emergency escapes. For further safety precautions, SWFC needed a digital public address and emergency evacuation system with proven reliability and clarity.

Solution:

The Praesideo PA and Emergency Sound System was chosen for its digital sound quality and freedom from interference and signal corruption, while being able to maintain excellent speech intelligibility.

To cover the offices, conference areas and the hotel, SWFC installed four Bosch Praesideo systems. The system consisted of 26 call stations including 4 custom-designed call stations, 6 CobraNet Interfaces for long-distance high-quality communication, 4500 speakers and over 200 Bosch (125 W, 250 W and 500 W) LBB series power amplifiers.

The PA system combines the speaker line multi-loop supervision with single-loop supervision, so almost every speaker line in the building is under full supervision. The four PA operator rooms are equipped with controllers and digital amplifiers. The controllers communicate with each other through an optical fiber network using CobraNet protocol, and all amplifiers utilize optical fiber networks connecting with controller.

The customer required a full "hardware" call station as the main call station, which was to correspond to the PC call station. So a "super" call station was designed that was 100CM long, 55CM deep and had 320 buttons serving almost 320 different zones in the building.



Shanghai World Financial Center (SWFC), with a unique trapezoidal hole at the top

In an emergency, announcements are able to reach all sound zones in the building in any combination, free from interference.

The SWFC's public address and emergency evacuation system comes close to being one of the largest and most complex systems to date.

Result:

As part of an integrated security solution, the Praesideo's open platform communicates with third-party systems and peripherals such as building management, fire-alarms, and passenger information systems.

"With cutting edge functions, clear structure and economical space, the Praesideo System more than meets our requirement for a Public Address system. The experts from Bosch and its distributor continuously offered good service and prompt response." said a senior official from SWFC.

Installation of the system was started in 2006 and officially ended in August 2008.

Installed by:

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