

## CASE STUDY

# JINSHANG BANK CO. LTD, TAIYUAN: INTEGRATED DATA CENTRE SOLUTION WITH HIGH ENERGY EFFICIENCY

In the Mingli Training Centre in Jincheng Datwyler has implemented a comprehensive data centre solution for the Jinshang Bank.



In order to increase the energy efficiency of their data centre, more and more operators are nowadays placing high demands on server room infrastructure and cooling plant design – in terms of both power supply and heat dissipation.

In this context the cold aisle is a design scheme which arrived at just the right time, and has rightly become the preferred option for increasing numbers of data centre operators. Of course a cold aisle is not an air conditioning unit. Yet this optimised design scheme can dramatically increase the efficiency of the cooling plant and cut energy costs if the layout of the server room is sensibly planned, the data centre environment properly sealed, the distribution of cool air flow optimised, and the cooling brought closer to the heat sources.

Jinshang Bank's Disaster Recovery Data Centre, located in the Mingli Training Centre in Jincheng, in the south of the Chinese province of Shanxi, uses the cold aisle design. The data centre covers 800 square metres – with a room height of over five metres. It comprises the main server

room, a room for test runs, one for access to the communication node, and other separate rooms for steel cylinders, ECC control and equipment, and high voltage power.

### 30 percent energy saving

For the server room of the Disaster Recovery Data Centre Datwyler supplied customised cold aisle racks which are used as server racks, and the complete set of cold aisle components including the doors and skylight components. Together with the floor they form the containment solution. This design separates the cold and hot air and carries the cooling airflow to the parts of the IT equipment which need cooling. This increases cooling efficiency and the bank saves around 30 percent of the energy required to achieve cooling.

During an on-site visit made in an early phase of the project Datwyler's technical team discovered some load-bearing columns which had to be incorporated in the design. Datwyler's Product Division quickly came up with a good solution. This was customised "cladding" designed specifically for the columns, and specially dimensioned



racks which helped to solve any problems with the planned layout.

The project was completed at the end of August 2019 and handed over to the customer on time. It comprised 131 racks forming seven cold aisles, 268 PDUs as well as comprehensive cabling solutions, including the complete preassembled OM4 fibre optic cabling system and Cat.6A copper cabling system.

### **Integrated services**

In addition to the project-specific solutions, Datwyler provided the bank with all the services it needed from a single source, from the site survey and planning through cold aisle design to documentation, which also includes instructions for connecting the hardware correctly. These services convinced the customer that Datwyler is not



only a trustworthy product supplier, but also a reliable provider of integrated services.

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