

# Customer Case Study

## Riello UPS protects China's Leading Mobile Network

In less than five years, the Chinese mobile market has grown from less than 10 million to more than 170 million subscribers. This rapid growth is set to reach more than 400 million users during 2005. To capture a large share of this growing market, in 2003 China Mobile invested in a new facility - The Beijing Mobile Caishikou Communication Building. The building is set to become the busiest and most critical business facility within the company over the next few years. Of all the new equipment being installed, the Uninterruptible Power System (UPS) was considered one of the most essential and important.

### Mr Qi, Director of the Project said:

"The best achievement must be supported by the best product and best supplier".

### 2MVA of Master Dialog Systems Ordered

Four UPS suppliers were selected to take part in the bid and after careful consideration, Riello UPS won by offering the most competitive product solution and service backup.

The sheer scale of the work was the biggest challenge for those working on project. With the installation now complete there are now two main UPS installations each operating two parallel Master Dialog 250kVA systems. One installation provides protection for Beijing Mobile's IDC business and the other protects general critical loads and the 3G network - the latest and most important new business area for China Mobile.

### UPS Group Synchroniser

A total of eight 250kVA modules were supplied in all. A new feature deployed within the installation was the Riello UPS UGS, (UPS Group Synchroniser). This unique device controls and manages both UPS groups, forming a highly reliable, dual-bus redundant power supply system.

### Master Dialog - Low Harmonic Distortion

The highly acclaimed Master Dialog 250kVA installed have a standard 12-pulse rectifier and 11th harmonic filter. This makes their input Total Harmonic Distortion (THDi) less than 5 percent ensuring a clean electrical environment for downstream loads and easier generator synchronisation where installed. Every model in the Master Dialog range uses an innovative double-conversion on-line capability with a transformer isolated inverter output. The load is powered continuously by the inverter, using a EMI filtered, stabilised and regulated sinewave supply. Other features include a built in front panel LCD, maintenance and static bypasses, and ABM (Advanced Battery Management) technology to help ensure the maximum possible working life for both the battery set deployed and electronics within the system. Typical ABM features include: scheduled online battery tests, over-discharge protection and temperature compensation during charging.

### Master Dialog - A future proof investment

The project investment is also future proof. The overall system can be extended at any time in the future as Master Dialog technology allows up to a maximum of six modules to be connected in parallel.



One of the parallel 250kVA Master Dialog UPS Systems and the USG accessory

For more information on the Master Dialog UPS featured here:

- [www.riello-ups.co.uk/riello/htm/dpc.htm](http://www.riello-ups.co.uk/riello/htm/dpc.htm)
- [www.ups-service-net](http://www.ups-service-net) (Riello UPS China)
- [www.riello-ups.com](http://www.riello-ups.com) (Riello UPS Italy)

### About China Mobile - A Forbes 400 A-List Company

China Mobile is the leading mobile services provider in the world's largest mobile telecommunications market. The Group is the only operator specialising in mobile telecommunications in Mainland China, with the world's largest unified, contiguous all-digital mobile network and the world's largest mobile subscriber base.

In 2003, the Company was selected as one of "The World's 400 A-List Companies" by the internationally renowned business magazine Forbes. It is the only Chinese company to feature in this A-List for two consecutive years.

The Group has 63,859 employees and a mobile telecommunications subscriber base of 141.6 million. The Group enjoyed a market share of approximately 64.8 per cent. and a domestic network coverage of 99 per cent of the cities and towns within its service areas. The Group's global roaming services cover 155 countries and regions. Further information in English is at [www.chinamobilehk.com](http://www.chinamobilehk.com).



TEC is a specialist consulting team within each Riello UPS company that provides project management, design, specification, and installation advice for both standard and bespoke Riello UPS designs. Each TEC member is appointed based on their engineering background and experience within the power protection field. For more information on Riello UPS TEC in the UK call **0800 781 7959** or email [tec@riello-ups.co.uk](mailto:tec@riello-ups.co.uk)