CASE STUDY

TAILOR-MADE SOLUTION FOR 1000 MOBILE PHONE BASE STATIONS

One of Germany's leading telecommunications companies is currently fast upgrading its entire mobile phone network with modern LTE technology. The company implementing the upgrade is relying on a preassembled Datwyler cabling solution for the points of concentration.

There is a demand for constantly increasing bandwidth from the telecommunications market and its customers, so mobile network operators need to connect their points of concentration (POCs), particularly their LTE base stations, with fibre optic cables.

Since mid-2014 a well-known mobile communications infrastructure provider has been producing a suitable high bandwidth link in "turnkey mode" for one of the leading telecommunications companies. The turnkey service includes infrastructure and transmission technology planning as well as development, coordination and integration on over 1000 mobile communication sites in Germany and several neighbouring countries.

The fibre optic linking of the points of concentration is effected by a standardised cabling solution from Datwyler. Preassembled components enable the installers to use identical, easily handled products on every site, thus dramatically shortening the relevant construction phase.

High-performance products

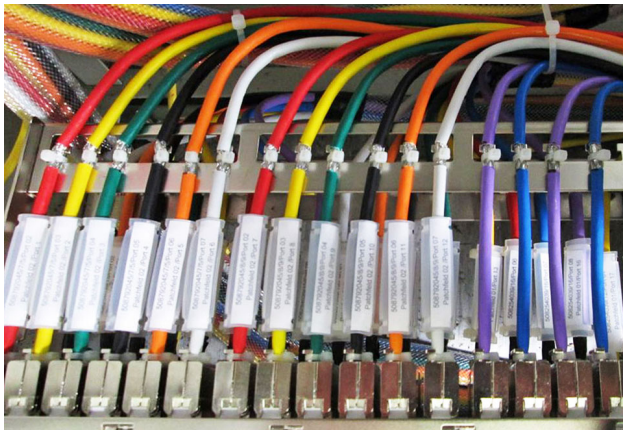
Depending on the site requirements the solution involves fibre optic trunks (multiple cables), 12- or 24-fibre outdoor cables, which are supplied ex works with preassembled SC and LSH connectors, and optical distributors, known as breakout boxes, equipped with the appropriate adapters. The optic fibres used are full-spectrum single-mode fibres with optimised transmission characteristics (G 652.D, OS2).

Many preassembled copper trunks are also installed on the mobile communication sites. For the current project Datwyler developed a 12-fold "Flextrunk" in rigid corrugated tubing suitable for outdoor use. Inside the mobile base stations the installers use eight-colour Flextrunks which they can shorten to fit on site. Thanks to high-performance data cables and connection technology, transmission rates of up to 10 gigabits per second can be achieved with the copper trunks.

The high-performance fibre optic and copper cables and components are used to bundle the mobile signals in the POCs and transfer them to the fibre optic backbone at maximum speed.

Time and money saving solution

Datwyler was selected mainly because the project managers had already been heavily involved with on-site conditions beforehand, and in collaboration with the client were able to provide a solution which fully met the end customer's argument for requirements. The convincing preassembled



Datwyler products was their quality, speed of installation, "foolproof" colour coding and good price / performance ratio.

"The deciding factor is the tailor-made solution for our customers in respect of time and investment cost. On the Berlin site Datwyler's outdoor breakout cable was installed by one person within one hour. For an on-site splicing solution, on the other hand, a dedicated team and lead time would have been needed, which would have been many times more expensive," explained the responsible Director Network Integration Service Department.

On target in every respect

Prior to installation Datwyler trained individual installers on the components supplied. Conversely, their ideas for further improving the products were incorporated – one more reason why the installations have been working perfectly smoothly so far.

Datwyler's solution is playing an important part in helping to meet the ambitious schedule. By July 2015 the mobile communications infrastructure provider had already equipped more than half of over 1000 mobile base stations with cutting-edge technology.

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