

1000座手机基地站的定制解决方案

TAILOR-MADE SOLUTION FOR 1000 MOBILE PHONE BASE STATIONS

德国一家领先的电信公司目前正在利用现代LTE技术快速升级其整个手机网络。这家升级中的公司就是华为技术公司，其依靠的是针对POC预装的德特威勒电缆系统解决方案。

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, Huawei Technologies, is relying on a preassembled Datwyler cabling solution for the points of concentration.

电信市场和客户需要不断地增加带宽，因此移动网络运营商需要为他们的集结点（POC），尤其是他们的LTE基站，连上光纤电缆。

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.

自2014年中期以来，华为技术有限公司一直在按照“全包模式”为一家领先的电信公司打造适合的高带宽链路。全包服务包括基础设施和传输技术规划，以及开发、协调和整合位于德国和几个邻国的1000多座移动通信站点。

Since mid-2014 Huawei Technologies Deutschland GmbH 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.

POC的光纤连接必须通过来自德特威勒的标准电缆系统解决方案才能生效。预端接组件使安装人员在每个现场都能使用相同且易于携带的产品，从而显著缩短相关的施工期。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.

高性能产品

根据现场要求，该解决方案包含主干光缆（多模），即12或24芯户外光缆，其预端接了SC和LSH连接器，以及配备相应适配器的光分路器（称为接线盒）。使用的光纤是具有优化传输特性（G652.D, OS2）的全谱系单模光纤。

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).

许多预端接主干铜缆也在移动通信站点安装。对于当前项目，德特威勒开发了一种刚性波纹管包覆的12芯Flextrunk，适合户外使用。在移动基站内部，安装人员可以利用8色Flextrunks来缩短现场装配时间。借助高性能数据电缆和连接技术，主干铜缆的传输速率可以高达每秒10GB。

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.

“装配工在一个小时内就完成德特威勒户外分支电缆的安装。”

Uwe Schnapp (华为公司)

**„DATWYLER'S OUTDOOR
BREAKOUT CABLE WAS
INSTALLED BY A FITTER
WITHIN ONE HOUR.“**

Uwe Schnapp, Huawei



1000多座手机基站之一的机架式铜制主干线
Racked copper trunks in one
of over 1000 mobile base stations

柏林的LTE基站
LTE base station in Berlin



高性能光纤和铜缆以及相关组件可用于在POC中集束移动信号, 然后将其以最大速度传输至光纤骨干网。
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.

节省时间和金钱的解决方案

德特威勒被选中的原因主要是, 在此之前其华为项目经理已经深入掌握了现场条件, 因此能够联合华为公司提供全面满足终端用户要求的解决方案。令人信服的预装配德特威勒产品的论据在于其质量、安装速度、“万无一失”的颜色编码以及良好的性价比。

Time and money saving solution

Datwyler was selected mainly because its Huawei project managers had already been heavily involved with on-site conditions beforehand, and in conjunction with Huawei were able to provide a solution which fully met the end customer's requirements. The convincing argument for preassembled Datwyler products was their quality, speed of installation, "foolproof" colour coding and good price/performance ratio.

“决定性因素是为华为客户量身定制的满足时间和投资成本需求的解决方案。在柏林现场, 装配工在一个小时内就完成了德特威勒户外分支电缆的安装。另一方面, 对于现场光纤接续方案, 需要一个专门的团队和交付时间, 这会贵很多倍。”华为网络综合服务部主管Uwe Schnapp解释说。
“The deciding factor is the tailor-made solution for Huawei's customers in respect of time and investment cost. On the Berlin site Datwyler's outdoor breakout cable was installed by a fitter 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 Uwe Schnapp, Huawei's Director Network Integration Service Department.

全面考虑所有目标

安装之前, 德特威勒会培训个体安装人员了解提供的组件。反过来, 这些人员对进一步改进产品的想法也会被吸纳整合——这就是安装工作到目前为止一直进行得非常顺利的原因。

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.



位于杜塞尔多夫的华为总部
Huawei head office in Düsseldorf

德特威勒的解决方案在帮助实现远大计划方面发挥了重要作用。截至2015年7月, 华为公司已经为1000多座移动基站中的过半数配备了尖端技术。
Datwyler's solution is playing an important part in helping to meet the ambitious schedule. By July 2015 Huawei had already equipped more than half of over 1000 mobile base stations with cutting-edge technology.

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