案例精选

REFERENCE PROJECT

AL REEM岛的光纤网络

德特威勒受Etisalat的委托，为阿布扎比海岸的Al Reem岛开发接入网。

A FIBRE OPTIC NETWORK FOR AL REEM ISLAND

Datwyler commissioned by Etisalat to develop the access network on Al Reem Island off the coast of Abu Dhabi.

作为阿拉伯联合酋长国的阿联酋电信公司（Etisalat）认定的总承包商，德特威勒中东公司负责进行设计验证和优化、光缆及系统配件供应和安装，项目监管和成本控制，测试和验收，并进行报告和文档记录。

As the general contractor appointed by Emirates Telecommunications Corporation (Etisalat) based in the United Arab Emirates, Datwyler Middle East was responsible among other things for design validation and optimisation, the supply and installation of fibre optic cables and system accessories, project monitoring and cost control, testing and acceptance, and for reporting and documentation.

Al Reem岛项目主要涉及在天空塔内安装PoP（入网点），也称为控制中心、节点或总站。在独立建筑内安装光纤网络以及PoP和高层建筑之间的连接。这些包括Gate Tower 3、4、5、7A和7C，以及Sorouh的新建筑物，即Sea View、Al Wifaq和Ocean Scape Towers以及两座Beach Towers。

The project on Al Reem Island essentially involved installing a PoP (Point of Presence) – also called a control centre, node or head station – in the Sky Tower, the installation of fibre optic networks in the individual buildings and connections between the PoP and the high-rise blocks. These were Gate Tower 3, 4, 5, 7A and 7C as well as the new buildings on the Sorouh site, i.e. the Sea View, Al Wifaq and Ocean Scape Towers as well as both Beach Towers.

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Datwyler started the requisite work in late December 2011 and completed it in September 2013, using high-fibre cables, splice closures, optical distribution frames and thousands of fibre optic patch cables in the aforementioned buildings.

冗余链路

天空塔内的PoP通过一条主光纤链路和一条冗余"二级"光纤链路连接到每栋高层建筑。Gate Tower的连接需要使用300到1300根单模光纤桥接600至2000米距离，具体使用的光纤数量取决于建筑的大小。

Redundant links

The PoP in the Sky Tower is connected to each individual high rise by one primary and one redundant (secondary) fibre optic link. Connecting the Gate Tower involved bridging distances of between 600 and 2000 metres with between 300 and 1300 single-mode fibres, depending on the size of the building.

Gate Tower 4内的尖光纤机架：光纤熔接在客户提供的配线架上

Central fibre rack in Gate Tower 4: the optical fibres are terminated on the patch panels provided by the client

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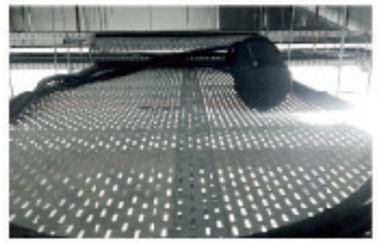
天空塔PoP的高密度机架和高密度配线箱

High-density racks and high-density distribution panels on the PoP site Sky Tower



Al Wifaq Tower（下图）中烟入检修孔（上图）的接头盒和延长电缆托架

Splice closure in manhole (top) and on extended cable tray in the Al Wifaq Tower (below)

到Sorouh建筑物的光纤链路包含300至600根光纤，长度介于850至4400米之间。

The fibre optic links to the buildings on the Sorouh site consist of 300 to 600 fibres and are between 850 and 4400 metres long.

灵活响应至关重要

规范规定：室外布线的各条链路应在可操作的人孔内安装若干光纤接头盒。此外，在每个独立的高层建筑内还提供了一个大型接头盒，作为户外布线的进入点。一些大楼内的电缆接入点和检修孔尚未完成，所以为了避免延迟和额外开支，德特威勒将在光纤接头盒设置在他们自己的电缆线路上。然后，这个简单的解决方案被复制到所有后续项目。

Flexible response essential

The specifications stipulate that each link of the outdoor cabling should have several fibre optic closures in accessible manholes. Among other things a large closure was provided in each of the individual high-rise buildings as a point of entry to the outdoor cabling. The cable access points and manholes had not yet been completed in several buildings, however, so in order to avoid delays and additional expenditure Datwyler placed the fibre optic closures on their own cable runs. This simple solution was then copied in all subsequent projects.

PoP的室内布线采用冗余设计，端接到高密度配线架的高密度机架上。在各个大楼内，光纤端接到客户提供的相应的配线架上的42 U机架。在这里，德特威勒安装了光分路器和跳线，使大楼准备好连接Etisalat的服务。

The indoor cabling on the PoP site is of redundant design, terminated in high-density racks on high-density distribution panels. In the individual towers the optical fibres are terminated in 42 U racks on the respective panels provided by the client. Here, among other things, Datwyler has installed splitters and patch cables to prepare the building for connection to Etisalat services.

德特威勒在各个单独的发展阶段面临着更大的挑战，例如对PoP的网络结构进行修改，在这里灵活响应同样至关重要。通过持续的网络优化设计、成本控制、精心的材料和资源调度，以及与Etisalat、一些主管机构和参与该项目的许多企业的密切合作，使得德特威勒能够按时、按计划和按预算完成这项艰巨的项目。

Datwyler was faced with even more challenges in the course of the individual development stages, for example modifications to the network structure on the PoP site, where a flexible response was once again essential. Continual network design optimization, cost control, careful material and resource scheduling and, last but not least, close collaboration with Etisalat, several authorities and the many firms involved in the project enabled Datwyler to complete this demanding project on time, as planned and within budget.