

电信基础设施 一站式解决方案提供商 ONE-STOP SOLUTION PROVIDER FOR TELECOMS INFRASTRUCTURE

过去的两年中，德特威勒一直作为总承包商，为阿布扎比Al Reem岛和Rawdhat区成千上万的新办公室、商店、公寓和别墅提供布线。

Over the past two years Datwyler has been acting as general contractor for the cabling of thousands of new offices, shops, apartments and villas on Al Reem Island and in the Rawdhat district of Abu Dhabi.

高层建筑遍布Al-Reem岛的天际线 - 这里就是滨海广场区
High-rise buildings dominate the skyline of Al-Reem Island - as here in the Marina Square district

Al Reem岛是一个集居民化与商业化于一体的项目。由Sorouh (Shams Abu Dhabi)、Reem Investments投资以及Tamouh开发，将在阿联酋的北海岸阿布扎比地区，位于波斯湾外海约半公里的一个天然岛屿上建造。该岛计划提供650万平方米的住宅和工作空间，容纳约18万人。预计总耗资将达到300亿美元。这个庞大的项目吸引了全球的关注目光，尤其因为它还是阿布扎比的首批自贸区之一。

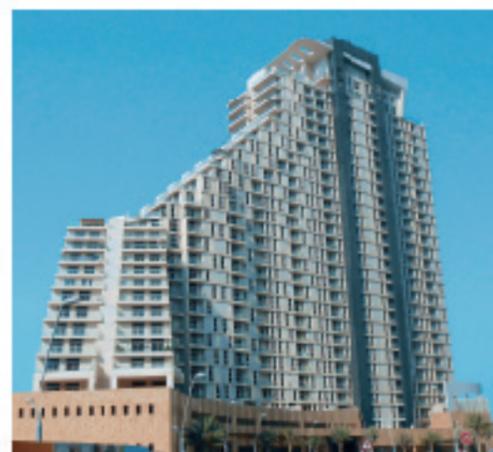
Al Reem Island is a residential, commercial and business project in Abu Dhabi on the north coast of the United Arab Emirates. The new neighbourhood, developed by Sorouh (Shams Abu Dhabi), Reem Investments and Tamouh, is being created on a natural island in the Persian Gulf about half a kilometre off the coast. The island is planned to provide 6.5 million square metres of residential and working space for around 180,000 people. The total cost is estimated at 30 billion dollars. This gigantic project has attracted international interest, not least due to the fact that it is one of the Abu Dhabi's first free trade zones.

阿布扎比的Rawdhat开发区与上述项目相比却逊色一筹，它包含18000个住宅和商业单位，面积80万平方米，耗资约50亿美元。The Rawdhat development area in Abu Dhabi is "modest" by comparison: it will comprise 18,000 residential and business units covering approximately 800,000 square metres and costing around 5 billion dollars.

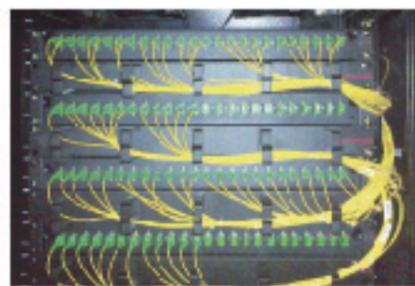
在两个项目中，德特威勒中东公司均被成功选为建筑电信基础设施的总承包商。项目主要包括数据、语音和电视/视频的结构化布线系统、光纤主干网、家庭自动化布线、光网络终端 (ONT) 和视频监控系统的 (CCTV) 安装。我们的合同由阿联酋电信公司 (Etisalat) 和 UT Technology公司授予，UT Technology是Etisalat的授权子公司，担任Al Reem和Rawdhat项目的电信管理机构和服务供应商。Datwyler Middle East was appointed general contractor for the telecoms infrastructure of the buildings in both projects. Amongst other things this includes structured cabling systems for data, voice and TV/video, fibre optic backbones, home automation cabling, the installation of optical network terminals (ONT) and video monitoring systems (CCTV). The contract was awarded by the Emirates Telecommunications Corporation (Etisalat) and UT Technology, the authorized subsidiary of Etisalat acting as Telecom Authority & Service Provider in Al Reem and Rawdhat.



德特威勒在天空塔PoP室内安装了闭路电视监控系统
Datwyler implemented a CCTV monitoring system in the Sky Tower PoP room



德特威勒仅在Mangrove Palace就为481套住宅进行了布线
Datwyler cabled 481 dwelling units in Mangrove Palace alone



Rawdhat壁挂式配线箱
A look into a wall-mounted cabinet in Rawdhat

德特威勒不仅负责为这些项目规划、供应和安装电信基础设施，同时也提供整体项目管理，包括成本控制。在此之上还有网络调试和验收，以及已安装系统的报告和文档记录。

Datwyler is responsible not only for planning, supplying and installing the telecoms infrastructure for these projects, but also for overall project management including cost control. On top of this there is network commissioning and acceptance as well as reporting and documenting the systems installed.

为多个高层建筑完成布线

在过去的两年中，德特威勒已经在Al Reem岛上完成17幢建筑的布线项目，包括Reem Diamond, Marina Bay, Amaya Towers, Mangrove Palace and Sky Towers，几个大型商业物业，Paragon Bay购物中心和一个别墅项目。到2013年8月，德特威勒已经在Rawdhat交付了7座多层住宅大厦。

Numerous high-rise buildings cabled

Over the past two years Datwyler has completed projects in 17 buildings on Al Reem Island, including the Reem Diamond, Marina Bay, Amaya Towers, Mangrove Palace and Sky Towers, several major commercial properties, the Paragon Bay Mall and one villa. By August 2013 Datwyler had handed over seven multi-storey residential blocks in Rawdhat.

这些项目包括1160户住宅的结构化布线，共安装了约430千米铜数据线和75千米单模光缆。由于包括光纤主干网的接插和测量，在12座建筑的2500多套公寓进行了ONT安装，涉及约9700条光纤链路的测试。

These projects included structured cabling for 1160 homes, when around 430 kilometres of copper data cable and 75 kilometres of single-mode fibre optic cable were installed. The ONT installations – always including patching and measuring the fibre optic backbone – even took in more than 2500 apartments in 12 buildings, involving the testing of around 9700 fibre optic links.

招标文件对包括6a类电缆和连接技术的水平楼层结构化布线、数据插座（部分在办公室采用地板插座）以及带光纤到铜缆信号转换器的壁挂式外壳做了规定。双光纤电缆被用于公寓到楼层配线间（FTR）配线箱之间的连接。每个FTR配线箱都使用竖向光缆连接到主配线间（MTR）的专用42 U机架，光缆包含12到48根光纤，具体取决于楼层容量。FTR和MTR均配备了跳线，分别用于连接水平双光纤和竖向光缆，以及连接竖向光缆和服务提供商的机架。所有连接都在两端做了标记，所有光纤连接都在交付前进行了测试。

The tender specification stipulated horizontal level structured cabling comprising Category 6a cables and connecting technology, data outlets – some in floor boxes in the offices – and wall-mounted housings with signal converters for fibre-to-copper signal conversion. Twin-fibre optic cables were used to connect the apartments to the cabinets in the floor telecom rooms (FTR). Each FTR cabinet is connected to a dedicated 42 U rack in a main telecom room (MTR) using riser fibre cable with 12 to 48 fibres depending on floor capacity. Patch cords were provided at FTR for linking twin fibre with riser fibre cable and at MTR for linking riser cable with the service provider's racks. All the connections are labelled at both ends and all the fibre optic links were tested prior to handover.

对于家庭自动化系统，包括监控和控制面板、运动检测器、恒温器、遮光设备以及访问控制，德特威勒使用6类线、适当的连接技术以及独立的壁挂式机箱进行布线。对此同样要对所有连接进行标记和测试。Datwyler used Category 6 cable, the appropriate connecting technology and separate wall-mounted enclosures for cabling the home automation systems – monitoring and control panels, motion detectors, thermostats and equipment for shading and access control. Here again all the connections were labelled and tested.

迄今为止，德特威勒已经在Al Reem岛的两间PoP室安装了闭路电视监控系统，其中一间就位于天空塔。

To date Datwyler has implemented CCTV monitoring system in the two PoP rooms on Al Reem Island, one of them being in Sky Tower.

成功的关键

一直以来，德特威勒始终能够按照规定的时间和预算完成项目，尽管需要克服如此规模的施工项目所带来的挑战。例如，这些挑战包括在接到通知后的极短时间内对建筑方案进行修改，以及由于其他建筑单位而导致的延误。我们取得成功的两个最重要的因素是不断优化设计，材料和资源规划，以及与客户、其他施工单位和安装合作伙伴密切协调。

Keys to success

Datwyler has always been able to complete the projects implemented to date within the time specified and within budget – despite the challenges typical of this size of construction site. These challenges include, for example, architectural modifications at short notice and delays caused by other construction trades. The two most important factors for success were continuous design optimization, material and resource planning as well as close coordination with the clients, the other firms operating on site and the respective installation partners.



Rawdhat公寓的ONU配线箱
ONU cabinet in an apartment house in Rawdhat

