panorama

City-wide fibre optic network in **Lucerne**:

10 YEARS, 3000 KM, MANY EXTRAS

Colocation data centres:

BASIC INFRASTRUCTURE FOR DIGITISATION

Innovative data centre services:

PLATFORM FOR CUSTOMERS AND PARTNERS

DÄTWYLER

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for cable management – page 26**

Imprint

EDITORIAL

WHO WE ARE

and what we are perceived as

Dear Readers

Our self image does not always coincide with the way others see us. This is true both in private life and in business. In the latter the magic words are "brand perception".

For over 100 years Datwyler has for the most part been associated with high-quality cables and cabling systems. This fact is hardly surprising because until recently our company was still called "Datwyler Cabling Solutions".

Over the past years Datwyler has undergone fundamental repositioning and has massively expanded the range of hardware, software and services on offer. Today we supply complete data centres, even turnkey if required. We engineer and implement state-of-the-art Edge Computing solutions for our customers. We develop concepts and solutions for IoT and Industry 4.0 applications, for high-performance campus networks, for Smart Shopping and Smart Offices – on behalf of locally-based companies as well as for businesses with branches worldwide. We are committed to using cutting-edge technologies such as Indoor and Outdoor 5G, GPON, 3-D visualisation and Artificial Intelligence. In some cases we are reinforced by skilled partners from our industry ecosystem.

Many of Datwyler's customers and business associates have understood our transition – and benefit from the expertise which we have developed, and from our "one-stop shop" offerings. All the others are cordially invited to join us in our journey into the future if they have not yet done so.

Of course in the future we will continue to manufacture high-quality cables and supply you with state-of-the-art cabling solutions – but no longer only that. In order to correct the old public perception and be seen in the right light we have now modified our name to reflect our business more meaningfully. "Datwyler IT Infra" fairly accurately describes who we are today and also how we shall present ourselves in future: a reputable high-tech provider of solutions in the field of IT infrastructure. This is how we would like to be perceived by all our customers and partners.

Come into the digital future with us! Even after the pandemic our society and our economy will be reliant on IT infrastructures which function perfectly.

Kind regards

Johannes Müller
CEO Dätwyler IT Infra AG

Xinghua, Yangzheng and Zhenghua Primary Schools, Singapore:

IT INFRASTRUCTURES FOR SCHOOLS

Datwyler supplied the data networks for three state schools in Singapore. These were installed by HEC on behalf of the Ministry of Education.

"The premium Datwyler cabling products have met the high quality expectations of our clients. We therefore recommend cabling systems from Datwyler for our project tenders."

**Juvi Soh, Contract Manager
at HEC Electrical & Construction**

Installer pulling cables through the ceiling

In Singapore around 20 percent of the annual state budget is allocated to the education sector in order to build up a knowledge-based economy in a country with few natural resources. The primary schools benefit from this as well.

HEC Electrical & Construction, a company established in 1995, has only recently become one of Datwyler's Solution Partners. HEC provides its customers in Singapore with comprehensive services, among other things in the fields of communications and security systems, electrical engineering, fire safety and integrated building technology.

Zhenghua Primary School during construction

*Space-saving installation
under the ceiling*

The first joint projects included the successful installation of the IT infrastructure solutions for the Xinghua, Yangzheng and Zhenghua Primary Schools. The solutions supplied by Datwyler encompass not only all the data network technology, but also the WiFi installations in the schools mentioned.

Future-proof solutions
In the backbone HEC used shielded Category 6_A copper cables and OM3 fibre optic cables. The three data networks are designed for transmission rates of up to 10 gigabits per second.

*Copper, fibre and cable
management panel installation*

With the creation of an end-to-end system solution from Datwyler each primary school today enjoys the use of top quality and very high-performance structured building cabling. This also means that the schools are equipped for the technical challenges of the future.

The clients are very satisfied with the IT infrastructure solutions installed. This is particularly true of product reliability and the support provided by Datwyler – two important aspects of the challenging education environment. *(jic)*

PDUs and cable management in the rack

Handover of completed project

Department of Education, Dawadmi Governorate:

Ministry relies on
MINI DATA CENTRE

Since the summer of 2020 a cost-effective mini data centre from Datwyler has been operating in the Department of Education of the Saudi Dawadmi Governorate.

In July 2019 the Department of Education of the Dawadmi Governorate decided to upgrade its IT infrastructure in order to digitise the processes and make them more agile and competitive. The Department therefore looked for a reliable, high-performance and yet cost-effective IT infrastructure solution which met all their requirements.

Datwyler Middle East was given the opportunity of presenting a mini data centre solution to those in charge. After a thorough evaluation they were convinced that the Datwyler solution was reliable and future-proof and satisfied the requirements specified.

The mini data centre supplied by Datwyler comprises three racks and an in-row cooler. It features an integrated UPS with 10 kVA, a 12.5 kilowatt cooling system, fire alarm and fire extinguishing system, an intelligent power distribution unit (iPDU), access control and an environment monitoring system.

Professional expertise

Jazaa Osaimi, the Department's Head of IT, is very satisfied with their collaboration with the Datwyler experts. "Their professional expertise, their support and their flexibility were of inestimable value," he stressed. "The data centre solution we received is very efficient, cost-effective and equipped for future expansion."

In July 2020 the mini data centre was installed and commissioned by Hawsabah, a Saudi partner certified by Datwyler. The Hawsabah team were given on-site support by Ihab Gazawi, Head of the Datwyler Data Centre Experts. *(soa)*

Mini Data Centre 2+1, comprising two IT racks, an in-row cooler (left) and an electrical rack (right)

The Department of Education of Dawadmi Governorate. The mini data centre was installed here.

Funan shopping centre, Singapore:

EXACTLY THE RIGHT BRAND

LSK Engineering backed a Datwyler solution for the data network in the new Funan development in Singapore's Civic District.

In 2019 an imposing new building complex was opened on the site of the former Funan Centre, which had been renamed several times and demolished in 2016. On a total floor area of around 82,600 square metres (889,000 square feet) the new "Funan" comprises offices, a serviced residential complex and a shopping centre. The latter is considered to be one of the leading IT shopping centres in Asia. Here the full range of most innovative new gadgets can be purchased at a relatively affordable price.

The building was conceived as a textbook example for "Living, working and playing under one roof", in which retail outlets, offices and a serviced residential complex – a "lyf" co-living residence from Ascott Limited – make use of synergies. With the addition of a climbing wall as well as indoor and outdoor cycling facilities, today the "Funan" appeals to millennials from all walks of life who are looking for an environment which provides quality of life, social responsibility and creativity.

The right installer
LSK Engineering (S) Pte Ltd was awarded the contract for the planning and installation of the structured building cabling. The project thus went to a reputable M&E contractor with an impressive track record. This included commercial, residential and public buildings, warehouses, hospitals, banks and even data centres. In addition LSK works with experienced professional staff and relies on state-of-the-art technologies as well as modern project management.

The right material
LSK recommended the Datwyler brand for the "Funan", and the relevant consultants specified it. Altogether around 250 kilometres of cable and the associated connection technology were installed and more than 2400 data connection points were created. The data network consists entirely of copper and fibre optic systems from Datwyler.

As anticipated, LSK succeeded in completing all the work without any major problems or defects. In the view of the project managers in charge, the products of a quality brand such as Datwyler play an equally important role here. *(ivy)*
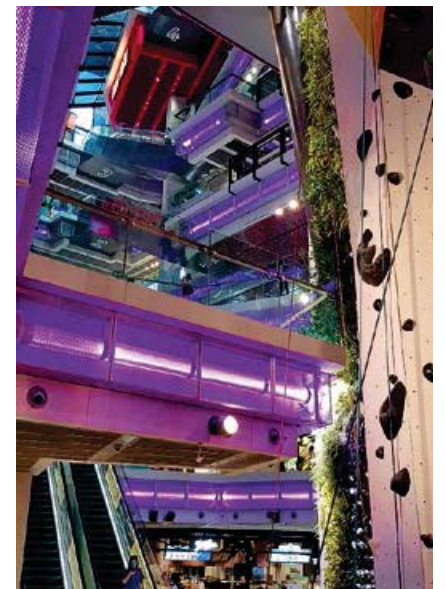
Heinen & Hopman Engineering B.V., Bunschoten-Spakenburg:

IN 2009, TODAY WAS STILL THE FUTURE

Eleven years ago a communications network from Datwyler was installed at Heinen & Hopman. At the time it was considered to be "future-proof" – and still is today.

In 2009, Datwyler's Dutch partner Redlink B.V. supplied a modern communications cabling system for the head office of the air conditioning specialist Heinen & Hopman. The IT infrastructure solution was installed by Van den Hoogen Engineering, a data network specialist based in Bunschoten-Spakenburg. The most important thing was for the cabling system to be high-performance and allow the trouble-free transmission of even large volumes of data, such as are created, for example, by 3D CAD models. What was also wanted was a flexible solution geared to the future growth of the business.

> ❝ **The high performance reserves are not nearly exhausted.**
>
> *Jeroen de Graaf, Sales Manager, Redlink B.V.*

Decision in favour of a Datwyler solution

A structured cabling system from Datwyler was installed in the offices, the production facility and the warehouse. In copper terms it comprised shielded Category 7 cables and Category 6_A components. Among other things each CAD workstation was given a separate 10 gigabit network connection. The telephones in the building were supplied with power via the data network (PoE).

The plant rooms, which were at quite a distance from each other, were interconnected by an OM3 fibre optic backbone. Three server racks and three patch racks were set up in the central plant room. Even today the layout of the latter is clear: the respective patch cables for connecting the telephones, switches, cameras and WiFi arrays are each in a defined colour. To allow for future expansion, space was left for additional IT racks. In any case the patch racks were assembled so that they had sufficient capacity to connect further workstations and new

units – whether cameras or WiFi arrays, access control or building automation equipment – in copper or fibre optic technology.

This IT infrastructure solution was considered to be extremely reliable and "future-proof". This was true then and – as has been demonstrated – still is today. The high performance reserves are not nearly exhausted.

Back to the present

Heinen & Hopman has grown considerably since 2009. In the end it had become so cramped at head office that the management decided to build a new wing with space for 60 additional workstations.

Thanks to the existing fibre optic backbone the new building could be connected up by a simple additional connection in the central plant room. No rebuilding was necessary.

In the field of digital security in particular Heinen & Hopman has "upgraded" and adapted its equipment to the latest safety standards. The IT rack and cabling needed for the new building was again supplied by Redlink and installed by Van den Hoogen Engineering. The type of copper data cable installed is the same as was used eleven years ago.

The new wing at company headquarters is thus also equipped with a reliable, secure and future-orientated data network. *(jeg)* ■
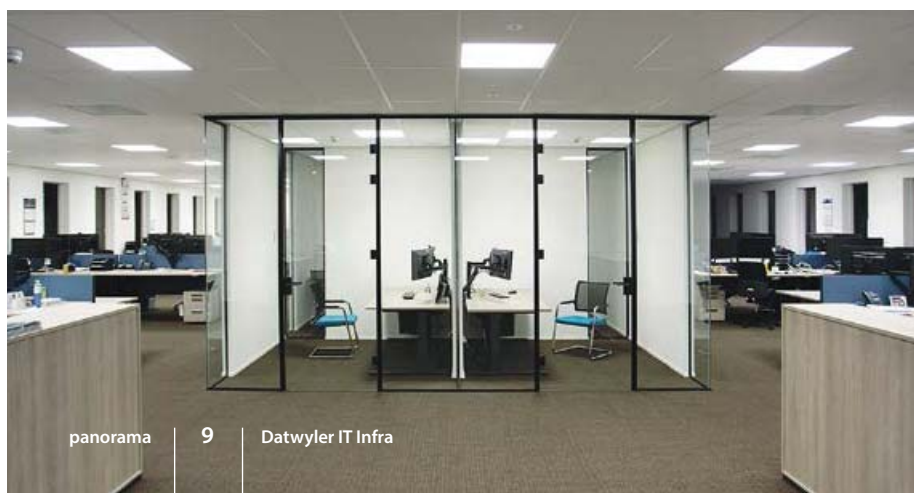
Lucerne Migros Cooperative:

ON TARGET IN EVERY RESPECT

Datwyler was appointed prime contractor by the Lucerne Migros Cooperative to upgrade the complete IT infrastructure of their Central Swiss Operations Centre.

Migros is the largest retailer in Switzerland. Established in Zurich in 1925, ten regional cooperatives form the core of the conglomerate. One of the largest is the Lucerne Migros cooperative. Established in 1941, it operates over 50 branches in the cantons of Lucerne, Zug, Ob- and Nidwalden, Uri and Schwyz.

The Migros Central Swiss Operations Centre is based in Dierikon. In 2017 the cooperative decided on a comprehensive modernisation project so that even in future it would be able to cope with the steadily increasing demands on the logistics and production site. In addition to a sizeable loading and container bay and a new automation system for fruit and vegetable picking, upgrading the IT infrastructure in all parts of the building was an integral part of the project.

Overall assessment
Early in 2018, Datwyler was commissioned by the cooperative to create a detailed concept for boosting IT availability. This included the construction of a new second local data centre on the site of the Operations Centre. The proposed upgrade gave those in charge of IT the opportunity to close the

Patrick Rastedter, Head of IT Infrastructure, Migros Lucerne, at the handover of the new data centre by Datwyler Project Leader Adrian Burri

legacy infrastructure gaps and significantly increase IT availability.

The concept included technical specifications for the layout of the new data centre, the climate control system, the power supply including UPS and emergency generator sets, the network architecture, safety and fire protection as well as for improving the efficiency of the existing local data centre. Among other things Datwyler suggested replacing the campus cabling based on multimode fibre optic cables with a redundant single-mode cabling system.

Those in charge were convinced by the holistic approach to the infrastructure and the

knowhow reflected in the concept submitted. In May 2019 Datwyler was awarded the contract to act as prime contractor for the construction of the three systems.

Combination of new building and rebuilding
The new building comprises a 70 square metre computer room designed for an IT load of 74 kW and three ancillary rooms for the electricity distribution networks and the extinguishing system. Today the main room houses 14 server racks and five network cabinets which are divided between two cold aisle containments. The cooling air is supplied via a raised floor, all the requisite cables are carried in runs above the racks.

The Migros Operations Centre in Dierikon

The electrical supply from the sub-distributors, the earthing and the intelligent PDUs inclusive of monitoring servers and software are also supplied by Datwyler.

The IT cabling system is based on a "HD-DCS" fibre optic solution with preassembled MTP trunks (OM4 multimode and single-mode). 588 copper links were installed here in addition to 864 DPX fibre optic links. The high-performance Class E_A network also consists of preassembled Datwyler cables and components.

A smoke suction system (very early fire detection) and a nitrogen extinguishing system take care of fire protection. The latter is incorporated into the existing fire alarm system.

The entire project was coordinated and supervised by the relevant Datwyler team. The close collaboration of all those involved – from client to service partners – proved its worth: after an integral acceptance test in which the whole system was checked, the new Migros Lucerne data centre was handed over in February 2020.

The existing server room was extended by an additional network rack row. By analogy with the new building 516 new Category 6_A links and 774 DPX fibre optic links were created here – during regular operation. The electrical supply was expanded commensurately. The whole upgrade was carried out seamlessly thanks to good preparation and close cooperation with the IT department at Migros Lucerne and the installation companies involved. It was inspected and accepted in October 2019.

A look from the rear: server rack during the acceptance test

No operational disruption

The new campus cabling system was also set up during regular operation. Originating from both data centres eight kilometres of "Datwyler FO Universal" cable with 12, 48 and 96 fibres were laid and terminated in "OV-CH" splice boxes in the racks. In this project as well Datwyler was responsible for planning and coordination, documentation and acceptance.

"With Datwyler as the prime contractor we opted for an experienced and capable partner," explained Patrick Rastedter, Head of IT Infrastructure at Migros Lucerne. "Thanks to the close cooperation between our team, the planning experts and the proven service partners, Datwyler was on budget and met all the agreed time schedules." *(adb/dir)*

Server rack containment with load banks during the integral test

Ctrip's head office in Shanghai

Ctrip, Shanghai:

IN THE SERVICE OF EXPANSION

Micro Data Centre solution from Datwyler

With micro and mini data centres and a comprehensive range of services Datwyler is supporting the travel service provider Ctrip in setting up a reliable global IT infrastructure.

Ctrip – a company in the Trip.com Group – is a Chinese online travel service provider which supplies hotel reservations, airline tickets, package holidays and business trip management among other things. The company, with headquarters in Shanghai, maintains close partnerships with over 32,000 hotels in 138 countries and regions. With a turnover of 35 billion renminbi (approximately 4.4 billion euros) last year it ranked eighth on the "Fortune Future 50" list.

Last year, in order to achieve further growth on the worldwide market, Ctrip decided to increase its international business to 50 percent of its total business by 2021. To do this it was essential to get together with skilled and equally efficient partners who could provide reliable support as well as on-site services in the branches and offices at home and abroad.

After several selection phases in which Ctrip examined various solutions, Huawei, ZTE and Datwyler were chosen as qualified suppliers. Datwyler was awarded the contract to supply the international retail outlets with its Micro and Mini Data Centres (MDCs) and various other products in addition to services. Datwyler is thus sup-

On-site installation of the IT infrastructure at the Ctrip site in the Philippines

porting Ctrip in rapidly setting up a global IT infrastructure.

Reliable solutions and software integration

Ctrip maintains a huge business network in China and abroad. The uninterrupted and stable operation of the MDCs in all the retail outlets is vital, despite the great distances and the complex installation and operational environments. Even a small glitch could seriously affect the business operations of a Ctrip site.

Ctrip operates a central monitoring and management platform at the head office in Shanghai. A SNMP-based interface is designed to give those in charge remote access to all the MDCs. Software which is stable and works reliably is also essential. This means that the data of individual sites can be uploaded to the platform in Shanghai in real time.

On-site services and fast responses

In the end Ctrip's rapid growth posed insuperable challenges for the IT personnel at head office. To reduce the workload of its own IT personnel, Ctrip expected Datwyler to provide on-site services on a global level. These services range from site surveys through design, planning, production, logistics, installation and commissioning to

after-sales support and the maintenance of the technical solution for each Ctrip site.

Standardisation of IT infrastructures

As part of the expansion the travel service provider revised its worldwide standards for IT Infrastructures, with the aim of harmonising these globally. For the suppliers this means bringing in their own products and ensuring the integration of existing IT systems everywhere that non-standard designs are in use. This relates to the computer networks, cabling, safety monitoring and wireless coverage among other things.

Datwyler solutions

For Ctrip Datwyler worked out solutions which met all the requirements specified. This created a solid foundation with the promise of a stable long-term partnership.

Previous successful micro data centre projects – since 2018, for example, with WEBi English (see Panorama No. 2/2018) – have given Datwyler the relevant experience of MDC solutions. On the basis of these projects Datwyler was able to put forward to Ctrip constructive and professional suggestions relating to building and design standards, which were gratefully accepted.

In addition, Datwyler provides a software solution – specifically developed in China

for the MDCs – which has likewise been tried and tested in many projects. It can easily be adapted to the relevant customer requirements and can be integrated into both the existing monitoring and management platform as well as Ctrip's subsystems.

Initial installations

Since May 2020, a Datwyler Micro Data Centre has been in operation at the Ctrip site in Hangzhou. In one compact rack this includes power distribution, UPS, PDU, cooling, a monitoring system and a touchscreen controller.

For the site in the Philippines a joint site assessment was carried out with Ctrip's IT team. Datwyler delivered a Mini Data Centre solution based on the design report compiled by Datwyler on the reconfiguration of the IT infrastructure. The solution is currently being installed.

This year because of coronavirus, Ctrip has slowed down expansion plans for the time being. This has not affected the good working relationship between the IT team and Datwyler. In urgent cases, the Datwyler service team was also available immediately at all times. *(jaj)*

10 YEARS, 3000 KM, MANY EXTRAS

In Lucerne ewl energie wasser luzern has set up a FTTH fibre optic network jointly with Swisscom. Among other things ewl is relying on product solutions from Datwyler.

Ten years ago, ewl, the energy service provider for the city of Lucerne, decided to implement a city-wide fibre optic network to homes. For this purpose, ewl formed a joint venture with Swisscom. The Fibre-to-the-Home (FTTH) network was to provide telephone services, fast Internet and high resolution television.

During implementation ewl built all the household connections. This means that fibre optic cables were run from the basement into each home. In the basements the fibres of the outdoor cables, those leading from the distribution centre – the Point of Presence – into the building, had to be spliced together with the cable laid in the home.

In order to access the telecommunications outlet in a home with optical fibre ewl needed a slim cable with bend-optimised fibres, as existing duct systems are mainly used for installation.

Almost 3000 kilometres of cable

At the time the decision was made to use Datwyler products. The decisive factor was not the physical closeness of the factory, but the manufacturer's experience, quality and expertise – as well as the trust which could be established.

Construction began in 2010. In the years that followed Datwyler produced for ewl around 2900 kilometres of "FO Indoor" FTTH cable with four bend-optimised fibres, the external diameter of

which was only 2.8 millimetres. It was terminated in the homes in special surface-mounted telecommunications outlets, around 23,500 of which Datwyler delivered between 2010 and 2012.

The cable was supplied on easy-to-manage plywood reels each carrying 1000 metres. It was installed by ewl-approved companies. This meant that a very high quality could be maintained even during laying and installation. ewl implemented the FTTH network on the 4-fibre model based on the guidelines issued by BAKOM, the Swiss Federal Office of Communication. In this context one of the four fibres remains the property of Swisscom.

Error rate: 0.03%

The project was completed at the end of 2019. Until then Datwyler had always delivered exactly the correct amounts at the right time. The manufacturer always had a ready solution even when there were bottlenecks. Only one of 2900 reels delivered was rejected. Because of the short

Address Residences Dubai Opera:

THE ULTIMATE IN SAFETY FOR APARTMENT COMPLEX

Datwyler contributes to fire safety in the Address Residences Dubai Opera.

The Address Residences apartment towers close to the Dubai Opera cultural centre are one of the finest luxury properties in Downtown Dubai. Datwyler safety cables were installed in the buildings to provide the residents with a high level of fire protection.

The two gleaming towers, which were developed by Emaar Properties, are located beside the Burj Khalifa Lake. The facilities are very exclusive. The many amenities include a five star concierge service for the use of residents and guests alike.

In the Middle East Emaar Properties is known for the development of iconic and unique infrastructure projects. The company expects very high standards from the materials and products in-

stalled in their buildings. In the case of the Address Residences at Dubai Opera, Datwyler was able to satisfy the demands made in respect of quality, reliability, technical specifications and delivery capacity.

The strong support and great flexibility of Scientechnic, Datwyler's distributor for safety cables in the United Arab Emirates, had a considerable influence on the award of the contract.

The Datwyler product solutions supplied included 240 kilometres of type "DFS ME" two-wire British Standard cable, halogen-free and with improved fire performance, and with conductor cross- sections of 2.5 and 1.5 millimetres. The installation was completed in mid 2020. *(suk)*

distance from the construction site this issue was quickly and easily solved.

Hardly surprising, then, that ewl is very satisfied. In March 2020 Otmar Krauer, ewl Project Leader, expressed his appreciation of Datwyler's fantastic 10-year collaboration. *(daj)*

Exclusive address: the Address Residences Dubai Opera in Downtown Dubai

Syamsudin Noor Airport, Banjarmasin:

INVESTMENT IN QUALITY AND PERFORMANCE

When expanding the Indonesian Syamsudin Noor Airport the operator decided on IT infrastructure solutions from Datwyler.

The new Banjarmasin Airport following renovation and expansion

Arrivals area

Lounge in the departure area

Datwyler patch cables

Check-in area at the airport

Syamsudin Noor Airport, named after a local aviation pioneer, is operated by the state-owned company PT. Angkasa Pura I, based in Jakarta. It is situated 25 kilometres southwest of Banjarmasin, the capital of the Indonesian province of Kalimantan Selatan, and is one of Indonesia's largest airports.

Despite repeated expansions the airport has never managed to cope with the steadily increasing volume of passengers. Although the airport was only designed for four million passengers, in 2013 5.5 million were already being handled on around 9000 square metres.

In order to expand capacity a new extension was added to the old terminal. The extension was completed in December 2019. Today the terminal occupies 77,000 square metres and can handle ten million passengers annually. The apron of Syam- sudin Noor has space for 20 aircraft: two Boeing 747s, two 777s and two 767s, twelve Boeing 737s and two ATR turbo-props. The take-off and landing runway was lengthened from 2500 metres to 3000 metres.

Complete systems from a single source

An IT infrastructure solution from Datwyler was installed in the terminal in the final months prior to opening the new building. The decision to choose end-to-end Datwyler solutions was made because the operator placed great importance on a high quality solution and performance. The good relationship between Datwyler's local system integrator, PT Multi Solusindo Perkasa, and the main contractor of this project was another key to success.

PT Multi Solusindo Perkasa – who was also the network designer – was able to install the new IT infrastructure solution in only just two and a half months. It comprises a backbone fibre optic network with 24-fibre single-mode cables, LC connections and the requisite accessories, as well as structured building cabling with copper data cables and Category 6_A connection technology. *(frs)* ∎

The Grand, Dubai:
FOR DISCERNING CLIENTS

Thanks to Datwyler the future residents of "The Grand" will benefit from an ultra-modern IT infrastructure solution.

"The Grand", a 62-storey skyscraper on Dubai Creek Harbour, was developed by Emaar Properties. Situated between the marina and the promenade, the new building features 500 modern residential units – with plenty of opportunities for eating, shopping and entertainment in the immediate vicinity.

For the IT infrastructure in the impressive state-of-the-art building Emaar Properties were looking for a structured cabling system of equally high quality to provide the residents with ultra-fast connections and maximum performance.

3W Networks was responsible for the low voltage part of the project. Datwyler pro- posed a copper solution which consisted of 180 kilometres of Category 6_A and 6 data cables to link the planned 4800 RJ45 connections on the floors. For the backbone there were also nearly 60 kilometres of fibre optic cable, with 24 to 144 fibres as required.

All requirements satisfied

3W Networks were convinced that this solution met all the project requirements, that Datwyler could supply premium quality products, and that it had a competent, experienced technical support team. HASB, Datwyler's distributor for structured cabling solutions in the United Arab Emirates, gave 3W Networks its full backing.

Once the order was placed the requisite cables and components were delivered from May 2020 onwards. The installation of the IT infrastructure in "The Grand" is scheduled for completion in early 2021. *(suk)* ∎

"The Grand" in September 2020

Middle East:
DATA CENTRE WEBINAR

Over 400 interested parties attended the first of the online seminars organised jointly by Datwyler and BICSI.

On 21st April, a live webinar via Zoom conducted jointly by Datwyler Middle East and Building Industry Consulting Service International (BICSI) was a resounding success. Ihab Gazawi, Head of Datwyler Data Centre Experts, discussed "new, existing and evolving data centres".

Gazawi gave the participants an overview of current standards, best practices and up-to-date trends in technology, including data centre upgrades using modular all-in-one solutions such as micro and mini data centres.

More than 400 interested parties from the region as well as from Europe, America, Asia-Pacific and Africa took part in the live webinar – and they expressed complete satisfaction with the content and method of presentation. Many of them joined in and asked questions, particularly with reference to Datwyler's Micro and Mini Data Centres. Those who were registered BICSI members received Continuing Education Credits (CECs) for attending.

As webinars are becoming increasingly popular and this form of continuing education and communication is used by companies in many industries, the Datwyler Middle East team will continue to conduct online seminars featuring innovations and trends in the field of IT infrastructure. *(ass)*

United Arab Emirates, Oman:
DISTRIBUTOR FOR ELEVATOR CABLES AND UPS

Suresh Kumar, Sales Manager at Datwyler Middle East, Swapnita Madhavan, Owner and Managing Director of Quadra Electronics, and Philip Daniel, Head of Finance & Controlling at Datwyler Middle East (from left to right)

Datwyler is adding Quadra Electronics to its distributor network in the Middle East.

In early September, Datwyler Middle East appointed Quadra Electronics, a Dubai-based company, as a new distributor for elevator cables and uninterruptible power supplies (UPS) in the United Arab Emirates and Oman.

Quadra supplies products and services in the fields of telecommunications networks, SCADA software and other automation systems for utilities and the transport sector as well as planning and consultancy. The new Datwyler distributor has wide-ranging technical know-how and maintains close business relationships with reputable organisations in the region. *(suk)*

Asem Shadid, Managing Director of Datwyler Middle East, presented new technological trends and innovations from Datwyler.

Saudi Arabia:
WORKSHOP WITH DISTRIBUTOR

Datwyler's close business partnership with the distributor Bright Wires fosters success and innovation.

At the end of January, Datwyler Middle East met Bright Wires Co., one of the two distributors in Saudi Arabia, for a joint workshop in the Holiday Inn Meydan Hotel in Riyadh.

At this event, Asem Shadid, Managing Director of Datwyler Middle East, presented the current technological trends of importance for future business development. He also shared with the Datwyler partners his insights into the development of a customer-orientated strategy which would be even better able to meet customer requirements in respect of future-proof IT infrastructures.

At the same time, the Datwyler team took advantage of the workshop to thank Bright Wires for their great commitment and excellent performance over the past year. Ahmad Fattal, the distributor's General Manager, reciprocated by expressing his satisfaction at the successful collaboration: "Datwyler is a really innovative company, and the team is extremely flexible and always anxious to create as simple a partnership as possible." *(soa)* ◼
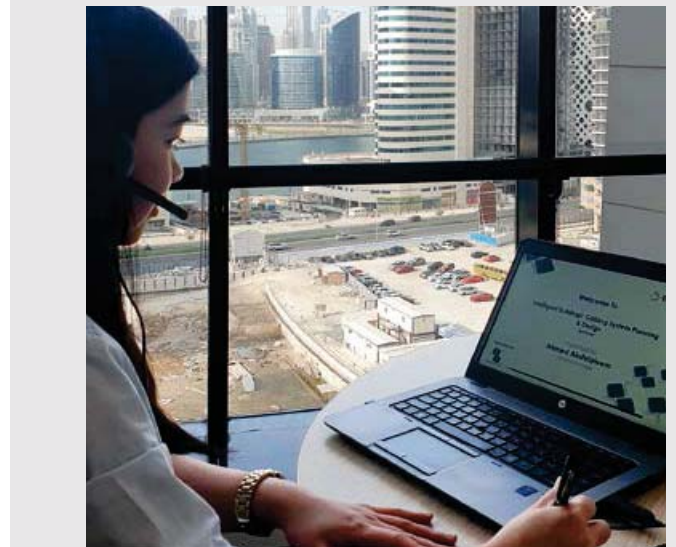
Middle East:
ONLINE SEMINARS

Datwyler Middle East provides regular online seminars – so-called webinars. The events are created jointly with partners.

On 26th August, Datwyler joined forces with IT Events, a company based in Cairo (Egypt), to conduct a one-hour live webinar dedicated to the design and planning of cabling systems. Ahmed Abdelaleem, Datwyler's Technical Manager in Dubai, gave an overview of how to plan and design robust and future-proof IT infrastructures for intelligent buildings.

Abdeladeem gave the participants an understanding of what the correct IT infrastructure solution should look like. He covered issues ranging from investment strategy to the operation of a complete "Smart Building Ecosystem". He explained what goes into making an "intelligent building", highlighted the market and technology drivers, and among other topics discussed cabling standards and recommendations for the use of Power over Ethernet up to 100 watts (4PPoE). On the subject of 4PPoE he explained "Smart Lighting" systems as one of the most interesting examples of an application in an intelligent building. All those attending received a Continuing Education Credit (CEC) from BISCI.

Originally intended for end users and consultants in the Middle East region, numerous other interested parties also took part in the webinar. The event generated plenty of positive feedback – on both the content and presentation. *(ihg)* ◼

Asem Shadid presented the General Manager of Bright Wires, Ahmad Fattal, and his team with a plaque to mark Datwyler's appreciation.

China:

AT WEE EXPO 2020

At the "World Elevator & Escalator Expo" trade fair, Datwyler presented proven and innovative solutions.

The "World Elevator & Escalator Expo" first took place in 1996. The 14th WEE EXPO was held from 18th to 21st August 2020 in the National Exhibition and Convention Center in Shanghai. It covered 130,000 square metres, attracted over 1000 international exhibitors and more than 100,000 industry visitors.

The high-quality state-of-the-art products and solutions seen at this year's trade fair clearly demonstrate the dynamic growth of the elevator industry, and the enthusiastic response of those attending the exhibition – despite the postponement caused by the Covid 19 outbreak – is the unmistakeable message that "the future is coming". This was particularly obvious from the cutting-edge IoT, automation and digital technologies.

Energy and data for modern elevators

Datwyler had a floor space of 100 square metres on which to exhibit its premium quality branded products, services and cutting-edge technologies, including elevator cables and system solutions for "Industry 4.0" as well as for the "Internet of Things" in elevators.
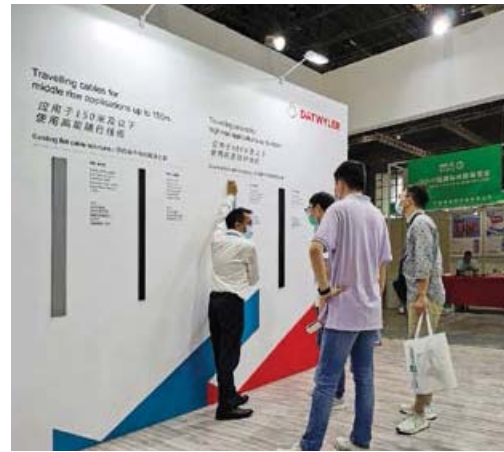
The products presented by Datwyler included a broad spectrum of traveling cables for shafts of between 80 and 600 metres in height, which have all the relevant certifications such as CCC, CE and UL. Also featured

Datwyler´s harnessing specialists in a discussion with interested parties.

IoT solution

Interested visitors at the stand

on the Datwyler stand were cable harnesses for shaft wiring and machine rooms as well as the associated preassemblies.
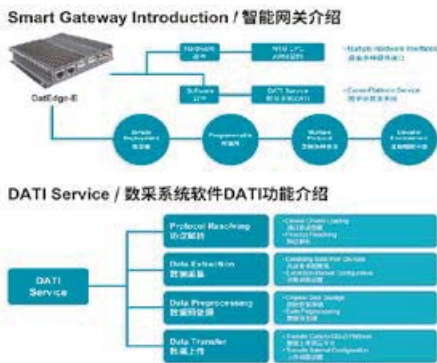
System solutions for "Industry 4.0"

Industrial cable harnesses are among the products most in demand in the manufacturing industry. Fully preassembled products allow for the simplest installation in the electronic and digital age. At WEE EXPO 2020, Datwyler exhibited its sophisticated industrial cable harness products, including solutions using copper and fibre optic conductors as well as those for gearless drives and servomotors. Datwyler supplies these premium quality tailor-made solutions to the elevator industry worldwide.

important functions, for instance preventative maintenance, remote defect response, automatic order dispatch, operational risk analysis and optimisation as well as targeted maintenance measures.

To supplement the elevator operating data the front end uses the data of special sensors, for example for voltage, vibration and environmental data. The local computer in the immediate vicinity of the installation uses "DatEdge-E". This is an independently developed Datwyler product which provides numerous interfaces for real-time integration into the elevator controllers of various suppliers. DatEdge-E collects and filters the data relevant to operation and uploads

Industry 4.0 solutions

IoT solutions

For over 100 years, Datwyler has been at the forefront of technical development in order to best meet client requirements. In the elevator industry this currently includes the issue of IoT. At the exhibition, Datwyler presented a solution based on IoT architecture. This enables users to implement numerous

the information to a Cloud platform via 4G, 5G, WiFi or other communication channels. The platform in turn stores and analyses the uploaded data. They can thus be visually represented via GIS or BIM, can be used for analysis, and real elevator-lifecycle management becomes possible. *(kag)*

China:

SUPPLIER OF THE YEAR

At this year's "World Elevator Summit",
Datwyler was named "Supplier of the Year"
for elevator parts and components.

In China over 200 million people use an elevator every day. The rapid development in residential and infrastructure construction means that the elevator industry in the People's Republic enjoys consistent robust growth. There are over seven million elevators in the country, and up to 800,000 are added every year. This accounts for over 70 percent of the market worldwide.

All the major manufacturers have now expanded into China and are offering their products, technologies, services and management concepts on the largest market in the world. They have long played an important supporting role in urban development and vertical transport.

Participants from all over the world
No wonder, then, that over 100 companies from all branches of the elevator supply chain attended the "World Elevator Summit", held in Shanghai on 18th August, including well-known manufacturers, service providers and suppliers of assemblies and components – from China, the U.S.A., Germany, Japan, South Korea, Switzerland, Finland and other countries.

There was a lively exchange of ideas in the form of talks and forums dealing with market trends, future maintenance concepts and the growth of the supply industry for parts and components. New opportunities and applications were covered, and new products, technologies and services were presented. This made it clear that the elevator industry has gained in importance.

Rankings and awards
The "summit" also publicised three current rankings: the top-10 lists of the largest elevator companies 2020 – worldwide and in China – as well as a top-100 list of elevator maintenance companies. Last but not least, several awards were presented during the event, including one for "Person of the Year" and one for "Supplier of the Year for Elevator Parts and Components". This year the latter award went to Datwyler, a company with strong Swiss roots and a tradition of over 100 years for quality and performance.

The organisers of the meeting also presented the "Elevator Projects of the Year 2020" together with the organising committee of the "China Construction Technology Innovation Conference". Included among the Chinese top elevator projects were three Datwyler projects: the CITIC Tower (cf. Panorama No. 1/2020), Daxing International Airport in Peking, and the Chow Tai Fook Financial Centre in Tianjin. *(kag)*

Colocation data centres:

BASIC INFRASTRUCTURE

for digitisation

An interview with Jens Prautzsch,
Managing Director of Interxion Deutschland.

Frankfurt may still be regarded as the skyscraper capital, but in fact for a long time the city has also been the data centre capital. The biggest player locally is Interxion, with 16 data centres in Frankfurt alone. And by 2028 Jens Prautzsch, head of operations in Germany, wants to spend around one billion euros on creating the Fechenheim Digital Park with a further data centre.

Herr Prautzsch, what makes Frankfurt such an attractive location?

Frankfurt is the Internet capital of Europe. Firstly because De-Cix, the world's leading Internet Exchange, is located here. Secondly, the two largest European fibre optic routes run through the middle of our site. Our close cooperation with De-Cix is an important growth driver for Interxion.

What role do data centres play in digital transformation?

Data centres are a basic infrastructure in digitisation. The huge volumes of data which have to be collected and evaluated by IoT systems need sites where they can be processed and exchanged. Studies predict that the volume of data worldwide will reach an incredible 175 zettabytes by 2025. This is a massive driver of the demand for data centre capacity, as an increasing number of companies want to move parts or all of their IT up into the Cloud.

Where does Interxion come into it?

We are seeing a significant increase in data traffic at the major hubs. In parallel, many small hubs will be established in the wake of 5G and new applications – the key concept being Edge Computing. Lastly, much of the data collected via Edge Computing must flow into a central Cloud, where it is processed and stored. With our colocation offerings including optimum links to carriers, Cloud and Internet hubs, companies can find a much faster way into digitisation. *(dir)* ■

Interxion

is part of the Digital Realty Group, a leading global provider of Cloud and carrier-neutral data centre services which operates 267 data centres worldwide.

Jens Prautzsch,
Managing Director of
Interxion Deutschland

"Multi-Site" Use Case:

Many sites –
ONE SOPHISTICATED SOLUTION

Karsten Lengnink, Vice President Product Management, in front of a Datwyler Micro Data Centre

> What does the optimum IT infrastructure for a company with a lot of branches look like? This use case provides an answer.

Are you proud of the close relationship with your customers? Does your company provide them with a range of tailor-made services, in different cities, countries or even continents? Then you will probably operate your business from a model of multiple business units, shops or offices, striking a balance between local availability and central applications in respect of your IT architecture.

Typically, the IT experts in your company have a clear idea of where data has to be generated, stored and processed for the business to "work" and to enable the data to be analysed further. As a rule, they know exactly which IT equipment is needed by their colleagues at the various sites and which should preferably be run centrally. They work out which software applications are better run locally and which should rather be managed centrally. All this – the internal knowledge – ultimately results in the establishment of an IT architecture.

It is very likely that these staff members are well informed about the benefits of the Cloud and Edge Computing. They know about the opportunities provided by local on-site data hosting: that, for example, this can avoid unnecessary data traffic or can allow easier compliance with country-specific data privacy regulations. The use of Edge Computing and 5G networks at individual sites provides great opportunities, particularly for the use of powerful software applications with high response time and bandwidth requirements.

Often, however, the IT experts only have a vague notion of what the IT infrastructure underlying their IT concepts should look like. The issues

of energy supply and emergency power, cooling and data networks belong to the specialist knowledge of other groups of experts – experts capable not only of designing the requisite central and decentral data centre and network infrastructure, but also of installing it and ensuring its sustainable operation, across all the company's sites.

Professional support
That is why companies like to call on external help in defining, installing and operating such an IT infrastructure. Rightly so! Ultimately it must not only comply with present-day requirements, but must also be prepared to meet future challenges.

Numerous projects have demonstrated that Datwyler IT Infra service teams can close this gap. Our experts and qualified partners understand the special conditions at a company's worldwide sites, and design the local networks subject to the requirements of bandwidth and access times. They install the IT infrastructures – be they copper, fibre optic and/or WLAN networks – integrate micro and mini data centres for processing data on site (cf. Panorama No. 1/2019) and connect these local units to the respective customer's central data centre.

IT infrastructures from a single source
In the planning phase Datwyler produces a

layout for the network and data centre infrastructure as well as a servicing and maintenance concept with defined procedures. Datwyler experts or certified local partners are available to assess the individual sites – including a "health check" of the data centres and networks already available. In doing so they contribute their own ideas and state-of-the-art technology and, for example, suggest access control systems, CCTV and other safety technology up to and including an energy-saving "Smart Lighting" concept.

This phase is concluded by a budget proposal. It may – if desired – be rounded off by a leasing or financing offer from a reliable partner.

During the construction and implementation phase Datwyler produces and procures the requisite hardware and takes care of the logistics, including just-in-time deliveries to the client's various sites. This applies, for ex-

ample, to the material for the office cabling, the wireless networks and the on-site data centres including the cabinets, cooling and power distribution as well as the monitoring hard and software. Datwyler plans, supervises and documents the installation work and ensures the quality of execution through to handover. The client is kept regularly updated by milestone reviews and ongoing reports.

Datwyler's responsibility need not end with handover, but can extend far into the operational and maintenance phase. Of course, Datwyler provides warranty conditions which can be extended for a fee, and offers maintenance agreements (SLAs) to cover current operation.

You can learn more about our services – for example how remote monitoring can be combined with a modern service ticketing system – on page 30.

Many years of experience
Datwyler IT Infra can draw on more than ten years of experience in implementing this kind of "turnkey" project. During this period, the service portfolio has been consistently expanded, and an increasing number of clients are entrusting their IT infrastructure projects to Datwyler – from planning through implementation to operation and on-site services, which are always designed to meet their specific requirements.

An up-to-date example is Ctrip, the Chinese online travel service provider, which is expanding rapidly and has subsidiaries in many countries. You can see what Datwyler is doing for Ctrip on page 12. *(kal)*

Software:

EFFICIENT PLATFORM
for cable management

CABNAVI, a software solution which Datwyler is offering
its customers in China, makes it considerably simpler to operate
and maintain cabling infrastructures.

A future-proof IT infrastructure forms the foundation of every digitisation project. Datwyler supports its customers in setting up data networks which are easy to maintain, manage and equip and are thus able to meet the challenges of digitisation.

Management of the cabling system is an important issue here. A uniform platform is needed for the smooth exchange of information – yet not many companies have one. Instead of this, information is still often recorded in Excel tables. When this is so companies frequently rely on the experience

of operating and maintenance staff. Several Excel tables may even be maintained on one specific object. But the correlations between objects and information cannot be shown like this, and historical data cannot be stored.

Platform for integrated cable management
CABNAVI is an intuitive, easy-to-operate and efficient platform for integrated cable management which Datwyler is offering to its customers in China – in Chinese and English. The solution is based on the Browser/Server (B/S) Framework and works on the "online planning and offline implementation" principle. It provides a combination of graphic visualisation and database as well as process-based assets and resource management. Moreover, it not only facilitates integrated information management, but also improves the operation and maintenance of the cabling infrastructure.

User-friendly solution
The system allows the entire IT infrastructure to be represented visually – in two and three dimensions, from the racks through the installed patch panels and switches to the individual ports. A great deal of information about the individual objects can also be integrated into the platform.

The combination of graphics and data, which can be accessed at any time, is very intuitive and clear. It not only gives a comprehensive overview of the resources available, but also of any changes.

The system can pinpoint each individual port and provide information on its status as well as on the entire link. Optical

Visualisation at Campus level

other users – and to manage change orders. The work orders can be created in different ways and forwarded via various messaging channels.

For change orders and move orders CABNAVI automatically calculates the necessary tasks and creates an amendment log. The visual representation makes it possible to analyse the status of the system at any point in time, for exam-

It simplifies operation, speeds up maintenance, reduces operating costs and lowers the probability of errors compared with manual calculations.

ports can distinguish status based on colours. Components such as switches, servers or patch panels can be added to a rack and positioned in it by drag-and-drop. It is just as easy to add the cables connected to the ports to the visual interface and to store the relevant information such as cable type, port number and cable length in the data base.
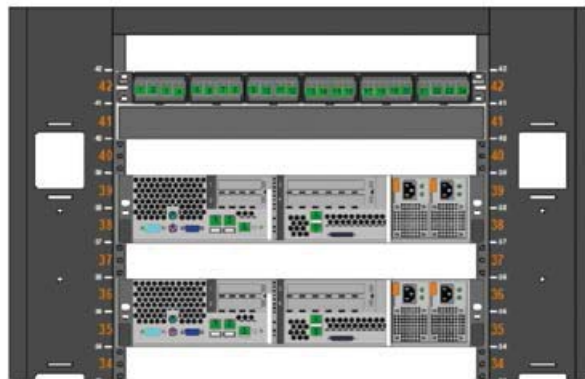
Unique functionality

The platform allows different access authorisations to be assigned to each user. At the same time CABNAVI offers a versatile programming interface (API) and supports in-

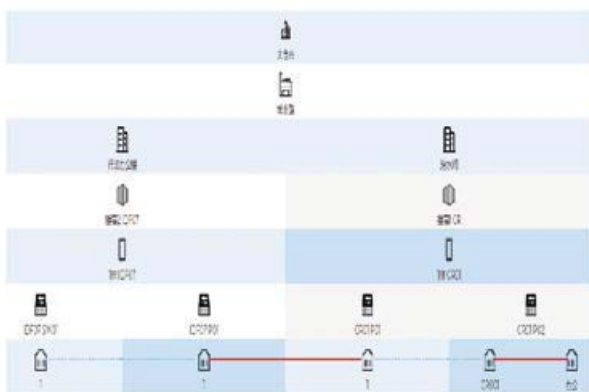*Visualisation of switch and patch panel ports*

Data and system security

The system is backupable and provides numerous security features including user password encryption with MD5, SSHA, CRYPT and SHA. Additionally, it supports procedures such as SASL, TLS and SSL, as well as access authorisation using LDAP.

Datwyler gives Chinese users the opportunity of combining CABNAVI with electronic patch panels. This means that the status of each individual connection can also be monitored remotely and the ports can be switched on and off remotely. *(del, kag)* ■

Intuitive and clear visual operation

terfaces like WebService and Socket. Authorised users can access relational data base objects and develop their own applications and services needed for their task.

The system can also be used to generate work orders – to the IT service as well as

ple the number of available ports or the kind of equipment in use – from the floor distributor to the entire campus cabling system.

The number of changes, the implementation of or-ders or the performance of maintenance staff can also be tracked at any time.

The platform uses navigation technology to help the operation and maintenance team automatically calculate the path from Point A to Point B. It also provides complete link information, such as the machine room, cabinet and equipment associated with the link – according to the workflow requirements.

Data centre services:

FROM "BASIC" TO "PREMIUM PLUS"

Datwyler Middle East, together with certified partners, provides three service levels to users of its Micro and Mini Data Centres.

Datwyler Middle East is committed to creating added value for its clients. In this context, the new service offering for Datwyler's Micro and Mini Data Centres was developed, and introduced in the region.

The focus is on the provision of professional support and high-quality services to ensure that the user's IT infrastructure is operating reliably and at full capacity.

In collaboration with a network of certified partners in the region, Datwyler Middle East provides users of Micro and Mini Data Centres with three service levels: "Basic", "Premium" and "Premium Plus".

This means that clients receive a service package which is precisely tailored to their business activities.

Datwyler's service teams bring the necessary technical equipment with them and have completed the training and certification essential for dealing with Micro and Mini Data Centres.

The standardised quality of support ensures high customer satisfaction and a better user experience.

Organisations interested in the new service level offerings should not hesitate to get in touch with Datwyler Middle East. *(ihg)*

Fibre networks:
COMPACT BEP TERMINALS

| Datwyler is offering a new,
| flexible Building Entry Point box family.

The new Building Entry Point (BEP) box family is ideally suited for access, in-house and floor distribution in different fibre network architectures such as FTTx, GPON and P2P. The boxes are made from plastic (IP54) and support different types of connectivity up to 12 SCD, LSH duplex or other adapters. Alternatively, they can be used to splice up to 24 fibres or to install optical splitters (stackable).

Cable entry is realised via a M20 cable gland, and the cables are routed via silicone multiport sealing. The boxes are

Suited for access, in-house and floor distribution

suitable for gas stop installation. They offer integrated fibre management and a folding splice tray with storage space for excess pigtail lengths and support for crimp splice protection.

Datwyler ships the new BEP terminals with pre-installed adapters and pigtails, cable gland, lamella seal, splice comb and installation instructions – but without a profile cylinder so that each customer can deploy the boxes with on-site locks and seal them.

You will find the technical data sheets on our website. *(fab)*

Data technology – copper:
25G FOR OFFICE AND DATA CENTRE

| Future-proof 25GBase-T solution from Datwyler.

Extended frequency range up to 1300 Mhz

Available from Datwyler as of now are "CU 7725 4P" data cables, which can transmit up to 25 gigabits per second and provide an extended frequency range up to 1300 Megahertz (MHz).

Users who install the high-end data cables together with the "KS-T8" RJ45 module benefit from a combination which forms an especially future-proof solution – up to 50 metres (Channel) in the data centre and in the office environment as well.

Depending on the fire performance requirement, the "CU 7725 4P" cables come in three versions – from Euroclass D_{ca} to $B2_{ca}$. The braid-shielded PiMF cables give a coupling attenuation of 85 dB, thus achieving the best segregation class d.

By comparison with Category 8 cables such as Datwyler's "CU 8203 4P" the new data cables have a larger conductor cross-section, which means that they are ideally suited for the simultaneous transmission of electrical power up to 100 watts.

You will find the technical data sheets on the Datwyler website. *(wea)*

Data centre services:

PLATFORM FOR CUSTOMERS AND PARTNERS

In Europe, Datwyler has established an end-to-end service concept for its Micro and Mini Data Centres.
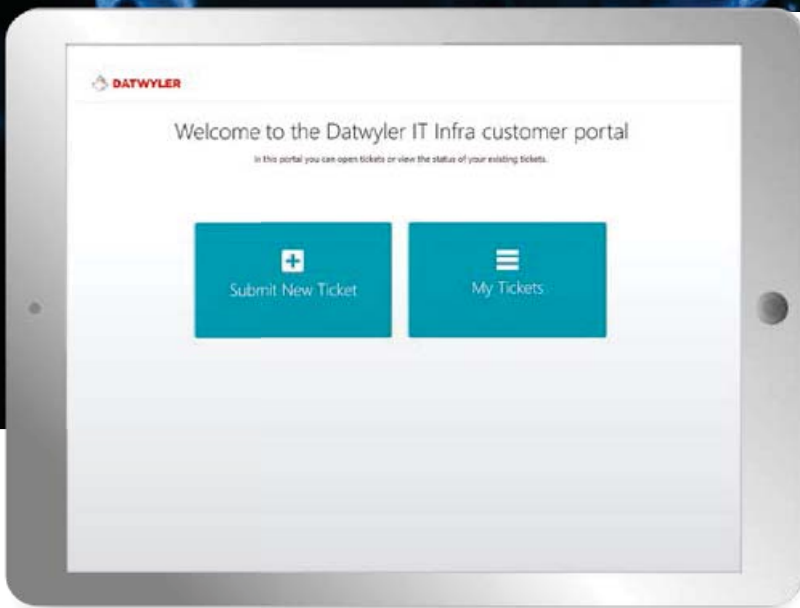
Start page (with login) of Datwyler customer portal

In August, Datwyler added a customer portal to its Service Level Agreement offerings for users of Micro and Mini Data Centres. Both preventative and reactive maintenance measures can be handled via this portal. It is based on a service platform which can be used by the Datwyler Help Desk, clients and service partners.
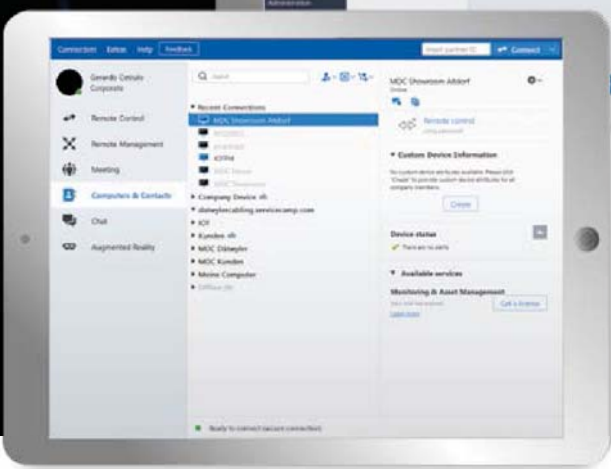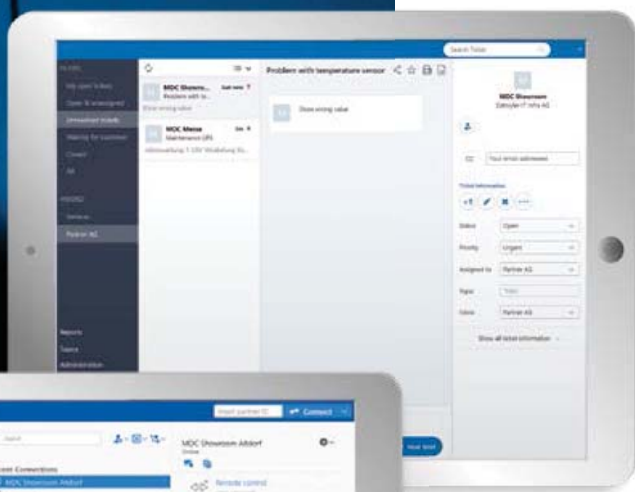
The latest generation of Datwyler Micro and Mini Data Centres (MDCs) are equipped with an intelligent monitoring system which monitors the operating status of the installed components. Together with the new service platform this results in an end-to-end service concept.

Help Desk portal

The MDC monitoring system sends automated messages to Datwyler's Help Desk portal. After the initial ticket evaluation, the Help Desk employee can be connected to the MDC monitoring server by remote management in order to carry out a detailed fault analysis and, for example, to change parameters.

Should it prove impossible to rectify the problem remotely, the Help Desk can use an Augmented Reality solution. Using the smartphone camera of a contact on the spot the Datwyler service employee can look at the IT infrastructure of the user's system and assist in defect rectification. 3D markers such as arrows can be placed on real objects in the smartphone image with the aid of

Partner portal with overview of upcoming maintenance or malfunctions of the MDCs assigned

Remote management console for linking the MDCs involved in the maintenance work

Data technology – copper:

AN ADDITION TO THE FAMILY

Datwyler is offering a new design of cable connector.

Compact and easy to use

an app. Problem areas can also be circled directly on the display with a finger.

Partner portal

If a component needs to be repaired or replaced, the ticket is assigned to a Datwyler certified partner and timed. All the relevant documentation on the installed Micro or Mini Data Centre is available to service partners via the portal. This means that they can deal with the malfunction or maintenance in accordance with Datwyler's standardised procedures. Feedback is in turn given on the service platform.

Customer portal

Clients also have access to the portal at all times. Here they can generate messages, look at their tickets and update themselves on every change in status.

Datwyler's end-to-end service concept naturally includes the ability to contact the Help Desk by telephone and email. Datwyler also provides this service 24/7 on request, depending on the Service Level Agreement (SLA) package. *(adb)*

Datwyler has recently added a new product to its portfolio of cable connectors: the Category 6_A "Toolless Compact" connector. It differs from the existing designs in that it is very compact, measuring only 16.8 x 32 x 19.3 millimetres (L x W x H).

A further benefit is the familiar handling during assembly which is known from Datwyler's RJ45 modules – including wiring without a special tool.

The new cable connector provides users with a very simple and easy-to-use solution for repairing a damaged cable or temporarily increasing cable length, for example when moving or replacing network racks or when extending or upgrading floor distributors. *(stz)*

You will find the data sheet on the Datwyler website

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