

# partner

Baiyun Airport, Guangzhou:

For

**TROUBLE-FREE OPERATION**

Hotel ANdAZ, Munich:

**CONVENIENCE FOR GUESTS**

and operators

Innovation:

**MICRO DATA CENTRE SOLUTION**

for the Edge

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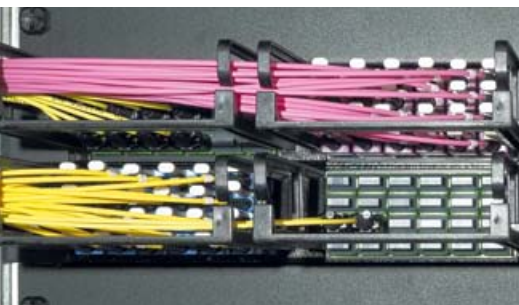
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# EDITORIAL

## AGILITY AS THE KEY TO SUCCESS in the modern world

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### Dear Readers,

Do you still remember how "strategic planning" used to be done? One of the typical questions, for example, was whether the annual growth in turnover should be 5, 6 or even 7% in future. To answer this question you scrutinised the figures from previous years and continued in the same spirit, based on your best knowledge and judgement. Most of the time the actual result was not so far removed from the plan ...

Nowadays this method is no longer so successful. Too many disruptive factors shape our world, and planning security has declined significantly.

How can we operate successfully in such a volatile environment? Well, a key success factor is agility. Those who are flexible will realise when change is on the horizon – and will therefore be in a position to react successfully, seize new opportunities and avoid serious errors.

Datwyler has addressed the issue of agility throughout the company. As a firm we want to be even more flexible, nimble and innovative so that we can provide you, our business partner, with the very best service at all times.

To make this work we are systematically training our staff at every level and in every country, and in this transformation process we are also making personnel changes where essential. Our guiding principle in this process is our vision, which is "to enable organisations around the world to run their IT infrastructures seamlessly and scale their business with ease."

With our solutions for data centres, fibre to the home networks and other IT infrastructure elements we are right up there at the forefront of technology. To keep it like that agility is an absolute "must" for us – in every respect!

I hope you enjoy reading this issue,



**Johannes Müller**  
CEO



DataHub, Biel:

# EQUIPPED FOR THE FUTURE

Flexible and expandable modular solutions from Datwyler give DataHub the security and reliability needed by the Swiss data centre operator



“We can always have confidence in Datwyler’s products, know-how and innovations.”

*Adrian Roth, CEO of the DataHub Group*

Between September 2016 and March 2018 DC-ONE AG, on behalf of Data Centre Biel AG, part of the DataHub Group, set up one of Switzerland’s most modern and future-proof data centres on a greenfield site in Biel. It has an effective data centre area of 3,000 square metres as well as 1,800 metres of office space. At a PUE value of less than 1.25 the energy efficiency of the data centre is extremely high. It was built to meet the TIER III standard, even TIER IV in some areas. DataHub operates it in compliance with ISO 27001 and ISO 50001, the standards for information security and energy management respectively.

For the initial development of the data centre the DataHub Group decided on a “Datwyler Datacenter Solution” (DCS). This enables the company to draw on a wide range of pre-assembled cables and components.

#### **Modular solution**

“As a dynamic start-up company the choice of high-quality products was very important,” explained Adrian Roth, CEO of the DataHub Group. “The values represented by Datwyler are consistent with ours. With the DCS System we chose a solution which allows the maximum packing densities and is available at short notice. It is neat and easy to install, and guarantees the compatibility we want. It also provides the modularity for future upgrades. The cabling will grow in line with customer requirements.”

In the initial development around 50 19-inch panels were installed with 1U and 3/4U (rack units) assembled with 130 LC plug-in modules and 310 copper cassettes. Fibre optic breakout cables and Cat. 7 trunk cables were used to establish the carrier networks and link up the

*DataHub's new data centre  
in Biel was built to the  
TIER III Standard.*



racks of DataHub customers. In addition Datwyler supplied numerous patch cables.

The structured premises cabling was also fully assembled with products from the Altdorf solution provider. At DataHub the Datwyler solution is used not only for data communications and telephony, but also to operate the entire building management system and data centre infrastructure management (DCIM).

#### **Know-how and innovation**

"There are a lot of products on the market. We opted for Datwyler because we have always been able to count on Datwyler's support in other projects. It is very important for us to have a dependable partner in whose products, know-how and innovations we can always have confidence," explained the DataHub CEO.

In the initial stage Datwyler was operating as general contractor on behalf of DC-ONE. This meant that Datwyler's project manager had full control over the quality of the installation and was able to ensure that all the customer's requirements – including the deadlines – were met. Prior measurement of the trunk cables supplied also ensured that commissioning was trouble-free.

"In Datwyler we have by our side an extremely capable partner who always responds to our wishes. The flexible and expandable modular solutions give us the security and dependability which we as data centre operators need to equip us for the future and future changes," said a pleased Attila Kovacs, Head of Data Centre at DataHub.

#### **Added value for customers**

"The original development plans were optimised after the contract was awarded, the lines were consolidated and supple-

day job and gives us the security we need to guarantee our customers an environment which is 100 percent secure," added CEO Adrian Roth.

The cabling infrastructure of the data centre not only meets today's requirements, but is also equipped for future technologies, especially in terms of higher data transfer rates and flexibility. That is how one of Switzerland's most modern and future-proof data centres – including the IT infrastructure – was created in Biel. (bg) ■



*The DCS System provides  
many preassembled  
cables and components  
to the highest standard  
of workmanship.*

mented by compact modular cable systems," continued Kovacs. "This generates added value for us and gives our customers greater flexibility and potential for upgrades in their racks."

Since commissioning DataHub has continued to implement customer upgrades with the Datwyler products used. "The excellent workmanship simplifies our day-to-



*The structured premises cabling system  
was also implemented using  
a Datwyler solution.*

Fibre optic  
backbone  
configuration



LAN installation in a temporary passenger hall



ENGIE Services, Schiphol Centrum:

# DEPENDABLE PARTNERSHIP



Redlink has been providing Datwyler cabling solutions to the ENGIE team at Schiphol airport for many years. Together the partners help to ensure that everything runs smoothly.

ENGIE Services, with a workforce of around 6000, is the largest technical service provider in the Netherlands, and maintains the ICT networks from Schiphol and Microsoft among others. The IT infrastructures at ENGIE's major business customers are being developed very rapidly, and demand flexibility, concentration and close contact on the part of the electrical suppliers.

For over ten years Redlink B.V., based in Bunschoten-Spakenburg, has been Datwyler's official distributor for Schiphol Centrum, the central part of Schiphol Airport. "We have found Redlink to be a dependable partner with a great deal

## Prompt implementation

Redlink supplies all information technology products to the ENGIE Team, which coordinates the IT installation work at the airport. This team is available round the clock and ensures that the desired modifications and upgrades are implemented promptly. The spectrum ranges from the connection of new shops through modifications to the fibre optic backbone to security and other smart building applications.

A good example is the maintenance and repair of the passenger flow system. This "smart" system uses sensors to measure the speed at which queues are moving. Excessively slow check-in generates a signal leading to a new desk being opened. This means that the system not only ensures satisfied passengers, but also helps avoid hold-ups and delays. Very close contact between Redlink and the ENGIE team and a flawless delivery process are therefore of great importance.

## Services as added value

Should an item not be available at short notice, Datwyler's partner will suggest a suitable alternative to ENGIE. Redlink also advises its client on its infrastructure policies, for example on the new cable fire classifications which came into force since the introduction of the European Construction Products Regulation (CPR). "Anyone can sell cables. We give the installers the information they need to do their job at the cutting edge", explains Jeroen de Graaf, Redlink's Sales Manager.

This is added value which also goes down well with ENGIE Services: "Redlink devotes a great deal of attention to every order. For example, they sometimes explain basic concepts to new staff in order to prevent future errors in ordering. This saves time, and to my mind that shows real initiative," says the ENGIE planning engineer in charge. (mk)



Cat.6<sub>A</sub> cables from Datwyler

of technical know-how, who holds a broad range of our product solutions in stock and is fully committed to ensuring that they are available on the Dutch market", explained Ralf Klotzbücher, Datwyler's Vice President Sales & Marketing Europe.



Baiyun Airport, Guangzhou

# For TROUBLE-FREE OPERATION

The recently opened Terminal 2 at Guangzhou Baiyun International Airport relies on an end-to-end cabling solution from Datwyler.

Datwyler's industry-leading cabling solutions and engineering services make it a sought-after partner in the equipment of airports. In China many major airports, including the international airports in Shanghai, Guangzhou, Kunming, Xi'an, Shenyang and Tianjin, also rely on Datwyler's integrated IT infrastructure solutions. In order to meet these special challenges Datwyler has for years been developing new products and cutting-edge technologies which combine top quality with the greatest possible safety and high environmental standards.

Guangzhou Baiyun International Airport is one of the three biggest airports in China, with a passenger throughput of 65 million in 2017. These passenger numbers mean that it is the "single-terminal" airport with the highest passenger flow in the world.

In April 2018 a second terminal came into operation at Baiyun Airport. It was equipped with a structured premises cabling system from Datwyler. As at all airports, this cabling system is the key physical platform for all airport communication, and an important component in the "informationization" and construction of "intelligent" systems. In Terminal 2 it serves





not only as the basis for communication, but also for the DCS and the wireless network as well as the baggage, security and other networks. In this sense the reliability of the cabling system determines whether the terminal is operating safely or not.



### End-to-end solution

In addition to the terminal building, the cabling project included the data centre, parking lots and several other functional areas. Extremely high demands on the quality and performance of the structured cabling system were imposed by the huge area of the airport, the size of the building, the high passenger throughput and, last but not least, the requisite safety and reliability.

Datwyler's solutions are implemented in every area and subsystem, i.e. right from the access area, through the central plant room to the individual workstations. In the sub-distributors there is a mix of copper and fibre optic technology, while the main links consist of single-mode fibre optic trunks which connect

it to the massive core. Altogether around 45,000 Category 6 connections were installed in Terminal 2, and 140 kilometres of indoor single- and multimode fibre optic cable were laid.

### Improved fire safety characteristics

By comparison with Datwyler's other Chinese airport projects this one required large amounts of high-performance products and services in a wide range. For example, all the cable types supplied for Terminal 2 had improved fire safety characteristics, thus complying not only with the high requirements of IEC Standard 60332.3c, but also with those of the relevant national cabling standards and of the Ministry of Public Security (GA 306.1-2007). In the event of fire the fact that the cables are flame retardant can limit the spread of the fire, prevent the release of toxic gases and ensure only minimal smoke, can make a substantial contribution towards guaranteeing continued operation, maintaining communication and protecting passengers and staff.

### Pre-assembled products

Many pre-assembled and prefabricated products were also used in this project, for example pre-assembled fibre optic cables and high-density distributors in the terminal's data centre. The benefit to the user of products like these is that they are "tailor-made" in the factory and have already been subjected to stringent qual-

ity and performance tests prior to delivery. The especially lightweight trunk cables produced for Terminal 2, the cable management and routing in front of the optical distributors and other custom-built products resulted in savings of 50 to 80 percent in material, space and working hours during on-site installation.

In the long run the safety and reliability of the entire cabling system depend largely on the quality of the products used. Even the design of the cables and components counts as a "hidden" security factor, because their quality has a direct impact on the whole IT infrastructure. The same applies to clean connector assembly: an incorrectly installed jack can lead to fatal errors throughout the system. In this respect Datwyler's engineering services made a significant contribution to the success of this project. (ft) ■





Hotel ANdAZ, Munich:

# CONVENIENCE FOR GUESTS and operators



Salvia Elektrotechnik is installing a high-performance future-proof 10 gigabit network from Datwyler in the Hotel ANdAZ, under construction in Munich's Schwabinger Tor.

Nowadays technical development and new user habits make much greater demands on hotels than was the case 10 or 15 years ago. Clients and operators have responded to this. For a long time now modern technologies and infrastructure concepts have been available as standard in many hotels.

Today the IT infrastructure in new buildings is generally designed to meet the desire of hotel guests for more convenience and to permit economical long-term operation of the property. Thus, for ex-

ample, it helps to provide high-quality communication and entertainment offerings, while at the same time optimising administration and improving monitoring and control by integrating all the technical building functions and facilities.

Such a solution is currently being installed in the Hotel ANdAZ Munich Schwabinger Tor. On completion in early 2019 the ANdAZ will have 234 rooms and 43 suites. For its guests it provides 2,000 square metres of conference facilities, a 500 square metre

ballroom, pool and roof terrace, a large fitness and wellness area as well as a restaurant, cafe, coffee shop and several bars. The client is the Jost Hurler Group, the Hyatt Hotel Group will operate the complex as a leaseholder.

The IT infrastructure will conform to the "Hyatt Standard". It features high-performance data cabling able to transmit up to 10 gigabits per second.

#### Complete solution from Datwyler

The entire high- and low-voltage infrastructure in the ANdAZ will be installed by Salvia Elektrotechnik GmbH. The Salvia team is setting up the complete data network with a 10 gigabit Datwyler solution. The system solution in the data centre is based on fibre

plained Uwe Herberg, the project manager responsible at Salvia Elektrotechnik. This enables the operator to use one and the same infrastructure for monitoring, control, adjustment and optimisation tasks. What is more, such a high-performance IT infrastructure solution means that the operator is also prepared for the technical challenges of the future.

Part of the safety cable system was also equipped by Salvia with Datwyler's functional integrity cables, connection boxes and clamps.

#### Positive experience

"My personal experience with Datwyler has been nothing but good," reported Uwe Herberg. "This is especially true of delivery



optic technology. OM3 fibre optic cables are being used to connect the data centre with the 14 plant rooms on the floors.

The network on the floors consists of just under 100 kilometres of Category 7 copper data cable and shielded Cat.6<sub>A</sub> connection technology, including 6,000 modules and 100 patch panels. In the rooms each data cable is connected, among other things, to a mini switch which provides the guests with high-resolution television and fast WLAN.

"The video system in the hotel is operated separately. But we have incorporated many other facilities into the data network, for example media technology, access control, lighting and air conditioning," ex-

plained Uwe Herberg, the project manager responsible at Salvia Elektrotechnik. This enables the operator to use one and the same infrastructure for monitoring, control, adjustment and optimisation tasks. What is more, such a high-performance IT infrastructure solution means that the operator is also prepared for the technical challenges of the future.

Some distribution panels in the ANdAZ building have now been put into service by Herberg's team. The remainder will follow by the end of the year.

"So far everything has worked well," says the project manager. He is not anticipating any surprises during final acceptance by the leaseholder. (awe/dr) ■



*Top left:  
The ANdAZ hotel is still under construction.  
It will be opened in early 2019.*

The background of the entire page is a photograph of a server room. It shows multiple rows of server racks. In the foreground, there are several racks with a large number of network cables plugged into the front panels. The cables are bundled together with white zip ties. The lighting is dim, with some blue and white light from the equipment. A teal-colored graphic element, consisting of a triangle and a horizontal bar, is overlaid on the left side of the image.

Web International English, Shanghai:

# A SOLUTION WHICH SETS A PRECEDENT

At Webi head office in Shanghai Datwyler has implemented a “smart” IT infrastructure solution which is serving as a model for all the branches of the Chinese language course provider.

Web International English – Webi for short – is one of the best and most modern of China's language schools. Since it was established in 1998 Webi has opened over 160 training centres in 60 cities throughout the country. English teaching takes place in small classes and is computer-assisted. Webi uses cutting edge computer assisted language learning (CALL) technologies.

The Webi head office is in the new headquarters of the Web Education Group in the Shanghai district of Xuhui. It is here that Datwyler recently implemented a comprehensive modern IT infrastructure solution. The solution installed by Datwyler is not only a key component of the "smart building" itself, but also serves as a template for the IT infrastructures of various Webi training centres throughout the country.

#### Central management

The remit was to create a dependable high-bandwidth wired and wireless network environment for around 2,000 users. All the subsystems were to be integrated in an IP-based management solution so that their operation could be visualised centrally by the IT managers. This solution was designed to serve as a sound basis for the future visualisation and central management of all the Webi IT infrastructures in China.

For the Webi head office Datwyler supplied an integrated end-to-end solution comprising a comprehensive cabling system, the computer network, the wireless network including access points, controllers and PoE (Power over Ethernet) switches, the systems for IP telephony, video monitoring, access control and multimedia conferencing, as well as various systems for the central plant room.

In this project Datwyler also used the new Micro Data Centre (MDC) for the first time. This solution greatly impressed Webi and was the decisive factor in placing the contract for installation of the nationwide IT infrastructures with Datwyler. In future Datwyler will look after the design, implementation and maintenance of the language school's entire IT and infrastructure as part of a strategic partnership.

#### The Micro Data Centre concept

The MDC is an integrated system covering energy distribution, cooling, UPS and network equipment among other things. At the same time it acts as a platform for cabling and visualised management.

The MDC supplied to Webi in Shanghai was relatively simple to install and considerably speeded up implementation of the business applications – from e-mail through e-learning to office automation. It provides Webi with the opportunity for fast data recovery, multi-stage upgrades and extensions as required.

Datwyler's data centre management software not only allows the visualisation and central monitoring of the IT infrastructure and network equipment. It also integrates the various sensors which ensure the safe operation of equipment, the video monitoring, access control and other systems. It therefore makes a significant contribution to effectively preventing errors, improving the efficiency and accuracy of operation and maintenance and, last but not least, to reducing the cost incurred by manual interventions.

#### Standard-compliant plant room

The comprehensive solutions implemented by Datwyler for the UPS, energy distribution, cooling, structured cabling and monitoring of environmental conditions in the central plant room mean that all the B-level requirements stipulated by the GB 50174-2017 Standard are met.

The central plant room provides a very clearly arranged high-performance infrastructure for the VPN and IT hardware, as well as a highly efficient and stable working environment for the CRM, office automation, and for financial and other business applications.

#### Benefits for the customer

Datwyler's intelligent data centre system has made the management of Webi's data centre considerably simpler. Datwyler's professional services and extensive project experience facilitated rational data centre planning and rapid implementation, reducing construction time and permanently cutting operating costs.



The intelligent data centre system was put into service in Webi's central plant room and was tested and accepted by Webi. In future this solution will also be implemented in the plant rooms at all the branches.

By then Datwyler plans to set up a cloud-based service management platform for Webi. This will be used to manage the equipment in the branches in real time, to improve the integration of data communication, distribution and services, and thus achieve better resource utilisation. (jjj) ■



China

# PARTNER CONFERENCE in Chengdu

In the spring the western Chinese partners met the Datwyler team at a well-attended conference in Chengdu.

This year the Western China Partner Conference was held on Mount Qingcheng in Chengdu, the capital of Sichuan Province. Many partners, both new and long-standing, took advantage of the meeting to discuss industry trends with Datwyler, to identify market opportunities and explore shared prospects for growth.

Over the past year Datwyler has showed great determination in pursuing its self-imposed objective of creating added value for its customers. Together with regional partners the company proved its worth in a highly competitive environment, and won a considerable number of representative projects – particularly in the data centre field where Datwyler achieved double-digit growth.

## Enhanced value for customers

Xia Xubing, Datwyler's Managing Director in China, welcomed the participants, thanked the partners for their continued support, and motivated them and Datwyler's Western China sales team to carry on with their successful work. He then outlined Datwyler's strategy and vision in the premises cabling field for the next five years.

The increasing use of concepts such as virtualisation, cloud computing and big data



presents today's networks – and hence the cabling systems as well – with new challenges, particularly in terms of maintenance, management and error minimisation. Zhang Dailong, Datwyler's Sales Director in China, explained to those present how Datwyler will continue to meet customer and market requirements with innovative high-quality IT infrastructure solutions thanks to competitive copper and fibre optic products as well as customised technologies and services.



Singapore:

# Developing THE EDGE

## Current market trends

Marketing Manager Zhao Jingyuan described Datwyler's over 100 year-old company history, and talked about the company's greatest successes. She then turned her attention to current developments on the Chinese premises cabling market. Structured premises cabling is gaining in importance, particularly in view of the trend towards "smart buildings". The planning of "smart cities", the "Broadband China" initiative, big data and the 5G network will also accelerate further growth in the cabling sector.

Datwyler is ideally equipped for this: As a professional supplier of IT infrastructure solutions the company has an experienced research and development team, modern test equipment, innovative test methods which exceed industry standards, and advanced manufacturing technology for a wide range of high-performance copper and fibre optic cables.

Product Manager Zeng Xiaoying underlined the fact that Datwyler also provides a broad array of system solutions and services for data centres. Using its competitive solutions the Datwyler team is able to support its customers in the efficient design of their IT infrastructures, helping them to save on the cost of personnel and materials.

Overall the conference proved to be an informative event which gave Datwyler's partners scope to hold discussions and exchange experience over and above the transmission of knowledge. (nz) ■



On 22nd March Datwyler hosted its own small stand at the "DataCloud Asia" symposium which, as every year, was attended by many CIOs, collocation data centre managers and cloud service providers. The Datwyler Singapore team also sent a data centre expert to join the round table discussion on "Edge Data Centres" with representatives of Uber, Equinix, Colt and Apcera. The panel agreed that companies could only profit from edge computing with its low latencies and high speeds, as the processing of data in real time enables greater value creation and supports disruptive new business models.

The CIOs responsible need to attend to scaleable modular IT infrastructures well in advance if they are to be prepared for the huge proliferation in IoT devices and for data mining at the source of the data over the coming years. The fast fibre optic networks needed for 5G are another key component in edge computing. Datwyler is already making a major contribution to developing the "edge" with its FTTx portfolio and Micro Data Centre solution. (et) ■



*Shaheer Shaaban, Head of Technical and Project Management, Datwyler Middle East, at the Partners Technical Training Session in Al Khobar*

Saudi Arabia:

## TECHNICAL AND PARTNER SEMINARS



*Shaheer Shaaban also gave the technical presentation in Jeddah*

Datwyler Middle East is collaborating with its distributor Bright Wires on further expanding business relationships in Saudi Arabia. With this aim in mind, two Technical and Partner Seminars were held in each of the Mövenpick Hotels in Al Khobar and Jeddah in April 2018. They were attended by leading consultants, customers and strategic partners from various sectors of the Saudi economy.

At both customer events the Datwyler team first presented solutions, products and services in the fields of IT infrastructure, fire safety and data centre technology. Each presentation was then followed by a lively open discussion.

The seminars once again demonstrated that customers and partners are pleased to receive information on new products, to hear about solution expertise and to exchange information on current technical developments (soa) ■

*Customer seminar in Al Khobar under the leadership of Asem Shadid, Managing Director Datwyler Middle East (centre)*



Oman:

## NEW DISTRIBUTOR

In March Datwyler Middle East welcomed Al Yanabi Projects and Investments LLC, a company based in the Sultanate of Oman, as a new distributor for fire safety products. Al Yanabi Projects is part of a leading Omani group with a focus on special projects and products for the construction industry in the Sultanate and the GCC region. The core competencies of Al Yanabi include the design, production, supply and installation of

air traffic control cabins. The company also provides calibration and inspection services for airport equipment and marine underwater structures. To complement with Datwyler, Al Yanabi has a range of safety products in their list like fire alarm system and gas detection sys-

tem. The collaboration with Al Yanabi will extend Datwyler's reach throughout Oman. Both companies are committed to first-class customer service. (sk) ■





## Indonesia: SEMINAR IN JAKARTA



In mid March Datwyler hosted a seminar in Jakarta jointly with Fluke Networks. Around 100 representatives from telecommunications, finance and production companies together with system integrators and installers attended the event, which was organised by PT Siwali and PT Gunung Sawo, the local distributors for Fluke and Datwyler.

One of Datwyler's data centre experts presented the company's infrastructure solutions for

"edge" data centres to the participants. Country Manager Sudarto Chan then introduced Datwyler's range of products for GPON/FTTx networks. The audience had plenty of questions on both topics.

In this seminar Datwyler's focus on turnkey end-to-end solutions proved particularly valuable: the audience was very appreciative of the Datwyler team's practical project reports and design ideas. (et) ■

## Jordan: BUILDING TRUST



At the beginning of April 2018 the Datwyler Middle East team held a customer seminar in Amman jointly with Advanced Technologies. Datwyler and the regional distributor welcomed over 50 participants from well-known corporate customers and regional consultancies to the Grand Hyatt Hotel. Together they presented the IT infrastructure and data centre solutions supplied by Datwyler in Jordan, and answered all the associated questions posed by consultants and clients from various sectors.



*The seminar was the scene of lively discussion.*

The event marked another milestone in the joint venture between Datwyler and Advanced Technologies. Once again it demonstrated that customer seminars are an important means of strengthening business contacts, supporting clients in their work, and building trust (shs) ■

*Asem Shadid, Managing Director of Datwyler Middle East (left), and Dawood Mamoon, Managing Director of Advanced Technologies (right)*

China:

# ELEVATOR TRADE FAIR in Shanghai

The “World Elevator & Escalator Expo” trade fair was held in Shanghai from 8th to 11th May.

This year over 1,300 companies showcased their elevator and escalator products and solutions at the National Exhibition and Convention Center. The fair drew over 100,000 visitors from more than 20 countries, including Germany, the USA, Japan, South Korea, Turkey, Singapore, Great Britain and India.

The portfolio displayed on the Datwyler stand included harnessed travelling cables for elevators with a shaft height of 80 to 600 metres – with CCC, CE, UL and other relevant certificates – as well as solutions for shaft wiring, distributors and accessories. The Datwyler specialists on the spot provided stand visitors with detailed explanations of all the potential applications, benefits and technical parameters of the products and solutions on display.

The Shanghai trade fair also reflects the latest industry trends. These include increasingly customer-specific products, higher safety requirements and a growing need for repair and maintenance services. One special feature to note about the Chinese market is that the proportion of national manufacturers continues to grow, while foreign suppliers are gradually losing their dominant position.

As a professional manufacturer of elevator cabling solutions which supplies its worldwide customers with logistics, consultancy and engineering as well as harnessing services, Datwyler is extremely well positioned for the future. (nz) ■



*The Datwyler stand was manned by international staff.*

*It is often the details which make Datwyler products more interesting than those of other suppliers*



Netherlands:

## TRAINING DAYS IN BUNSCHOTEN

At the end of May the certification training course for the Datwyler Solution Partners was held at the offices of Datwyler's partner Redlink B.V. in Bunschoten-Spakenburg. The participants came from every province in the country. One had even travelled from the Netherlands Antilles (in the Caribbean).

After a welcoming address by Redlink Sales Director Jeroen de Graaf, Emiel Taling, the "face" of Datwyler in the Netherlands for many years, introduced the company to the audience and began by speaking about the trends in copper and fibre optic cabling systems.

The two-day training course then went into the details. As usual, the emphasis was on providing participants with information on standard-compliant installations which conform to national directives – for data cables and safety cables as well as system compo-

nents. An important issue here is the European Construction Products Regulation, which came into force in July 2017. The participants were particularly interested in matching cable types with practical applications or situations.

The training course left plenty of room for questions and knowledge sharing. All the participants ended up receiving their certificates. This entitles them to pass Datwyler's 25-year system warranty on to their customers. (mk)



China:

## COOPERATION WITH GF INTENSIFIED

**In April 2018 Datwyler Cabling Solutions in Suzhou received a visit from representatives of GF Machining Solutions, a division of Georg Fischer AG.**

Since 2017 Datwyler has been producing industrial wiring harness solutions for GF Machining Solutions in Peking, initially as samples and as from this year in series as well. GF was visibly impressed by Datwyler's research and development capabilities, the fast professional implementation of application-specific and country-specific product solutions, and the short delivery times. Datwyler, under contract from GF in Peking and Changzhou, is currently producing around 160 different wiring harnesses for the company's electric discharge machines (EDM), providing distinct advantages in respect of their resistance to water and oil.



*GF delegation visits Suzhou: basis for future collaboration*

In April representatives from GF Global Procurement und Global Technology Divisions visited Datwyler's subsidiary in Suzhou. The delegation toured around the entire plant, thereby gaining detailed insights into Datwyler's processes, management, quality and services. Both companies reached agreement on the direction of worldwide strategic collaboration over the next three years. Thus Datwyler will provide GF Machining Solutions worldwide with application-specific solutions – while maintaining high quality standards but at even greater speed and at reduced unit cost. For both partners this arrangement forms a sound basis for future co-operation and further market development.

Georg Fischer AG, based in the Swiss town of Schaffhausen, was established in 1802 and can look back on 216 years of successful company history. Today the company has 134 branch offices and 57 production sites in 34 countries. In 2017 GF generated a turnover of 4.1 billion Swiss francs. The GF Machining Solutions Division most recently invested 13 million Swiss francs in the worldwide purchase of wiring harnesses. (nz) ■



China:

# HALF-YEARLY MEETING IN ANJI

End of June 2018 Datwyler's Chinese management and marketing team met for their half-yearly meeting.

*The half-yearly meeting was held in Anji in Zhejiang Province.*

This year the first management and marketing meeting of Datwyler's Chinese head office was held in Anji in Zhejiang Province. It began with a review of the past financial year. Xia Xubing, Datwyler's Managing Director in China, presented the 2017 results and then went on to deal with the challenges of the current year. He stressed the importance of business transformation to implement the five-year plan, which provides for profitable growth. Xia encouraged the participants themselves to become drivers of change, strengthening distribution channels and boosting the development of key accounts. He also called on middle management to commit to the data centre business and stressed that Datwyler had to become a self-learning organisation and a place of life-long training.

Sales Director Daniel Zhang discussed the opportunities and challenges of the "IT era" and gave the outlook for the second half of the 2018 financial year. He encouraged his team to become actively involved in the work of the Datwyler data centre experts in order to profit even further from the growth of this market segment in China.

Paul Xu, Director Category Management, explained that the transformation of the Datwyler enterprise could only work with a change of mindset. His speech met with great applause. James Ji, Data Centre Expert and Head of DC Business Development, also gave a brilliant talk on Datwyler's opportunities in the data centre market. "We must be a solution partner, not just a product seller," he emphasised. "We can provide our customers with a solution which helps them concentrate on their core activities while we look after their IT infrastructure issues."

By the end of the meeting the participants were highly motivated and confident of being able to achieve the targets set. (nz)

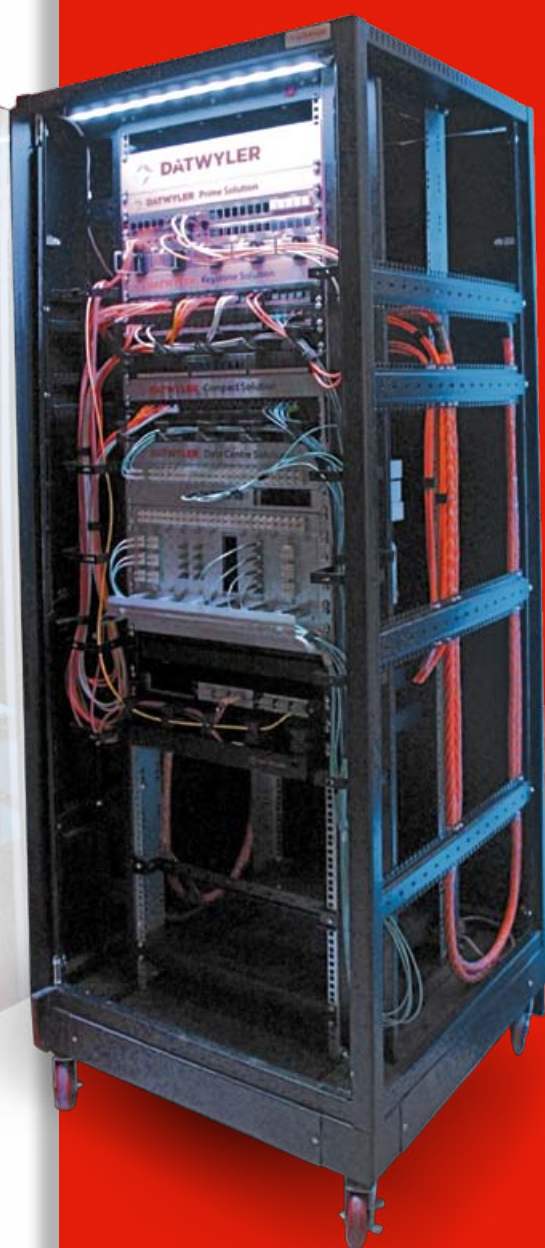
*Xia Xubing explains the challenges of 2018 to the management and marketing team.*



Mexico:

# ON THE “DATANET” IN THE WTC

“DataNet Mexico” was held in the Mexico World Trade Centre in mid August.



*Datwyler “hands-on” solutions*



*The Marathon team on the exhibition stand*

For the third time Datwyler was represented at the technology trade fair by its Mexican partner, the Marathon Group. Around 400 visitors, predominantly ICT specialists, called at the exhibition stand during the three-day event to gather information on current trends and technologies from the Marathon team.

In addition to two large display cases Datwyler had brought to the fair a network cabinet featuring various copper and fibre optic solutions. These demonstrated the most important cables and connection components in a typical network installation and gave stand visitors a “hands-on” feeling for up-to-date cabling concepts.

For Marathon and Datwyler the trade fair is a perfect setting in which to swap knowledge and experience with all the professionals involved in structured premises cabling. At the same time it again served to pave the way for new business contacts and interesting projects.

This and the positive feedback from stand visitors once again meant that the event was a resounding success which will help to develop the market position in Mexico. (jph) ■



Hong Kong:

## DATA CENTRE INNOVATIONS

In mid May Datwyler took part in the "Data Centre World" trade fair in Hong Kong – and was able to present several innovations to stand visitors. These included a Class I copper link with a Cat.8.1 RJ45 module and RJ45 connector, and a high-density distribution panel with 144 LC ports. A great deal of attention was also attracted by Datwyler's new Micro Data Centre (MDC), which is installed at the "edge" of the network and supports Internet-compatible (IoT) devices. This innovative solution comprises a prefabricated, densely packed 42U rack with copper and fibre optic panels, UPS, cooling, fire-extinguishing system, sensors and monitoring system. It enables companies to use standardised mini data centres in many subsidiaries and branch offices (see page 29). (et) ■

United Arab Emirates:

## ADVANCED TECHNICAL TRAINING

RW Armstrong & Associates LLC, based in Abu Dhabi, is one of the leading design and construction consultants in the United Arab Emirates. For Datwyler it counts among the region's main consultants.

As an introduction to the "Datwyler Tables" design tool and the company's major products, Datwyler Middle East ran an advanced technical training course in June 2018 for a team of experts headed by Saheer Basheer, Senior ICT & ELV Engineer at RW Armstrong. The main aim of the event was to exchange valuable information – a first step towards possible collaboration in future projects. (ahk) ■



*Saheer Shaaban, Head of Technical and Project Management at Datwyler Middle East (standing, right), talks to the RW Armstrong team headed by Saheer Basheer, Senior ICT & ELV Engineer (seated, left)*



*Adrian Shu, Datwyler Country Manager for Malaysia, talks about Cat.8*

Malaysia:

## CAT.8 IN FOCUS

Around 150 interested parties accepted an invitation from Datwyler and its local distributor N-Communications to attend a technical seminar held in mid July at the Sheraton Hotel in Petaling Jaya, the largest city in Malaysia's Selangor State. The subject was "Cat.8 - 40 Gbit/s via RJ45". The event included a live demonstration in which Datwyler used a Fluke tester to prove to the participants that 40 gigabits per second can be transmitted via Datwyler's Cat.8 data cable and "KS-T8" RJ45 connector in compliance with the ISO/IEC 11801 Class I standard. The seminar was rounded off by a buffet lunch and a networking session. (ash) ■



Switzerland:

# EXCITING INNOVATIONS

Plenty of new developments and end-to-end industry solutions meant that the "Com-Ex" trade fair saw Datwyler Cabling Solutions at its best.



Datwyler unveiled an exciting range of innovations at "Com-Ex", held in Bern in late September. Around 200 visitors, mostly end customers but also installers, wholesalers and planners, took the opportunity of catching up with the company's latest new developments on the exhibition stand.

Particular interest was shown in the compact RJ45 "KS-TC Plus Cat.6<sub>A</sub>" keystone module which, when combined with the new "KS 48x" patch panels, makes it possible to fit up

to 48 ports on one rack unit (see page 27). In fibre optic technology Datwyler excelled with the 19-inch "OV-CH" panels, which are assembled ready for splicing and have a flexible pull-out drawer.

## Data centre innovation

In a small on-site data centre the Altdorf solution provider demonstrated a worldwide innovation in high-density cabling: the "HD-DC Solution", featuring up to 192 LC or 96 MTP ports on one rack unit. (see page 26).





For a simple and cost-efficient FTTH rollout in rural areas Datwyler has supplemented its end-to-end FTTH solutions with a solution which is "extraterrestrial" in the truest sense of the word and does away with the need for groundwork. The Datwyler cables are installed in non-metallic microtubes on the existing overground infrastructure – on telecommunication masts or power pylons.

#### Subject areas

In a live demo Datwyler showed how lights can be powered and switched via data cabling. A separate area of the exhibition stand was dedicated to an end-to-end solution for the hospitality sector – hotels, retirement homes and nursing homes. Here operators were able to obtain information on intelligent consolidated IT infrastructures for all their applications, including the provision of infotainment.

Thomas Meyer, the new Head of Sales Switzerland, was very pleased with the positive feedback from visitors to the stand. "This Com-Ex was a good platform for Datwyler to introduce our new copper and fibre optic cabling solutions to trade visitors. These include many with which we address the increasing problem of space in distributors, server rooms and data centres." (dr)

Egypt:

## CUSTOMER SEMINAR IN CAIRO



The teams from Datwyler Middle East with Asem Shadid, Managing Director (5th from right), and Connect IT with Sami Said, Managing Director (3rd from right)

A customer seminar in the Hotel InterContinental City Stars in Cairo, organised in July by Datwyler Middle East in collaboration with Connect IT, was attended by leading consultants and well-known companies from throughout Egypt. The aim of the seminar was to introduce Datwyler to new customers and partners and to strengthen existing relationships.

The Datwyler team of experts outlined the solutions, products and services relating to IT infrastructure, fire safety and data centres to the participants. The event marked the launch of business activity expansion in Egypt.

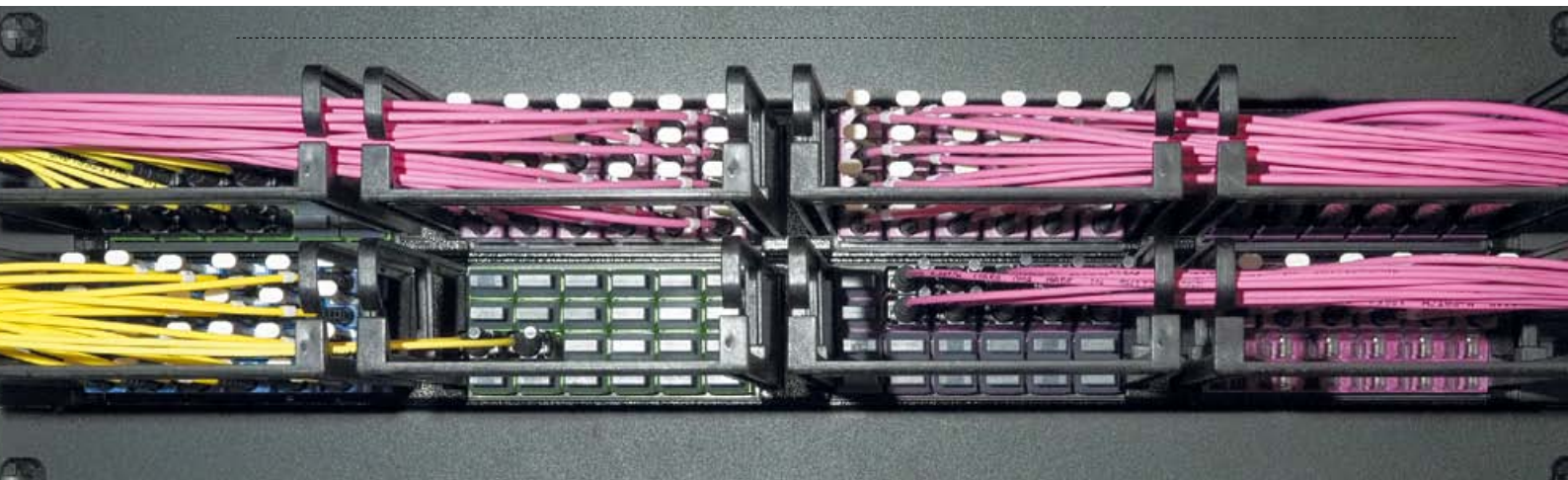


Further seminars and events are planned to increase Datwyler's market share in the region. (sha)

Shaheer Shaaban, Head of Technical & Project Management, Datwyler Middle East, with Dr. Samir Hassan, Professor from MSA University, and Eng. Walid Hassan, Operation Manager of Connect IT (from right)

Data centre cabling:

# HD-DC SOLUTION



Datwyler presents the “HD-DC Solution”, a plug-and-play cabling solution which provides up to 96 LCD or MTP ports on one rack unit.

Higher port densities and maximum flexibility. Integrated cable management. Secure, easy-peasy cable handling at front and rear. Generous labelling fields and optimum clarity. These are only some of the highlights which the newly developed “HD-DC Solution” can offer users.

## Flexible modular system

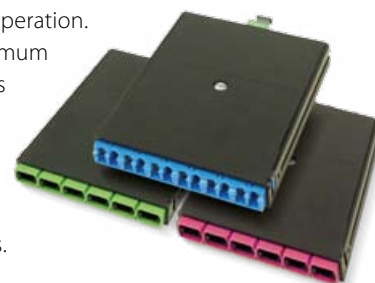
The “HD-DC Solution” is a compact, modular and efficient-to-use platform which was designed as a flexible modular system. The youngest member in Datwyler’s high-performance data centre portfolio increases the packing density of fibre optic connections to an unprecedented degree. With this innovative system solution handling the high port densities associated with large switches and SAN directors is also child’s play.

The 19-inch platform of the “HD-DC Solution” provides up to 96 LCD or MTP ports – i.e. up to 1152 fibres with MTP<sub>12</sub> – and only occupies one unit (U) in the rack, inclusive of the integrated cable management system.

LCD and MTP ports can be combined as required.

The port density of each plug-in module (cassette) can also be individually selected. For this the modular system provides three versions with 6, 12 and 24 ports. Last but not least, the port density on partially equipped panels can easily be increased during subsequent upgrades

– even during operation. While giving maximum clarity this makes optimum use of the valuable space in hyper-scale and cloud data centres.



## Slim trunk and patch cables

In addition to preassembled, finely coordinated installation cables (trunks), the system also includes slim, high-quality patch and fanout cables with LCD Uni-boot or MTP assemblies. The 12-fibre MTP patch cords have a cable diameter of only two millimetres, and the 24-fibre ones are likewise very slim at three millimetres. The entire “HD-DC Solution” family of patch and fanout cables is equipped with push-pull rods to guarantee secure patching.

The new system solution will be available from March 2019 and will complement the existing high-density product range. For the moment it is the top data centre cabling solutions product from the Datwyler company. Its compact design, industry-leading port density, unique flexibility and wide range of applications makes this technically sophisticated solution a good choice for the data centre of the future. (pa)



Copper data technology:

# 48 RJ45 CONNECTIONS ON 1U

Datwyler is addressing the increasing problems of space in distributors, server rooms and data centres with very compact modules and two new patch panels.

In structured premises cabling systems the networks consist of 80 percent copper and 20 percent fibre optic technology. At the tertiary level – on the floors – the proportion of copper cabling amounts to almost 100 percent. New extensive applications such as 5th generation wireless networks or Power over Ethernet with power transmission of up to 100 watts (4PPoE) further highlight the importance and universality of copper cabling solutions.

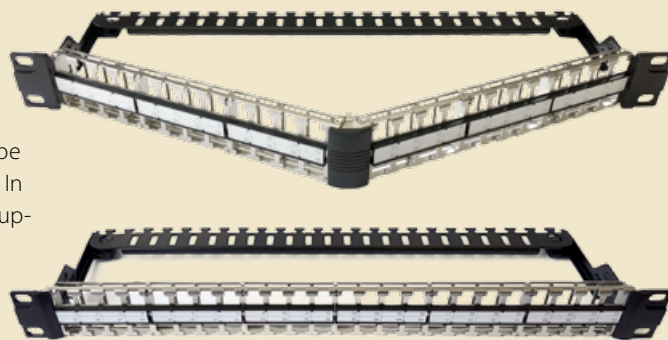
## Simple and fast installation

In this context Datwyler provides the "KS-TC Plus Cat.6<sub>A</sub> tool-less" RJ45 module, a shielded, very compact modular jack with solid spare capacity. It also fully supports remote power, so this module is recommended for 4PPoE as specified in IEEE 802.3bt. Its small size of only 32.5 x 16.8 x 19.3 mm, coupled with Keystone design features, can hardly be bettered. Installation time is significantly



reduced due to the practical locking clip with 360 degree shielding. Laborious fixing with cable ties is also a thing of the past with the "KS-TC Plus".

Module supports and patch panels suitable for the previous members of the KS-T Plus family can also be used for the "KS-TC Plus". In addition Datwyler can supply the "KS 48x" and "KS 48x-a", two new panels which address the increasing problems of space in distributors, server rooms and data centres. In combination with the new module 48 ports can be accommodated on one rack unit (1U). The panels – available in a straight or angled version – have a robust solid metal frame and labelling fields with a transparent cover.



## Unshielded solution

The "KU-TC Plus Cat.6<sub>A</sub> tool-less" module is available from Datwyler for unshielded Class E<sub>A</sub> solutions. The dimensions and

connection concept are identical to those of the shielded version.

The "KU-TC Plus" achieves maximum performance when used with the "CU 692 4P" data cable and the "KU 24x" patch panel. (wa) ■

Cable management:

# E-PANEL SOLUTION

A “smart” cable management system makes the operation and maintenance of a network considerably more efficient.

*The management unit (left) and  
the 19”/1U E-panel with 24 copper ports (right)*



Often not much attention is paid to the design and operation of cabling systems in major IT projects, since this is a relatively simple system which accounts for only a minor part of the cost. At the same time it is often forgotten that over 50% of operational interruptions are caused by malfunctions in this very part of the IT infrastructure which constitutes less than 5% of the total investment. What is more, work on data networks is relatively complicated and time-consuming. That is why the department responsible for operation very rightly pays a great deal of attention to cabling system management.

In the digital age, when systems are becoming increasingly “intelligent”, the demands on cable management have changed. Manual updates of the original configuration involved in each modification can no longer meet today’s requirements. Not only is this method ineffective and prone to error; the amount of data required can just no longer be dealt with in the traditional way, particularly in sizeable installations. For this reason – and so as to comply with modern network security requirements – increasing use is now being made of electronic distribution panels.

## **No special cables needed**

Datwyler’s new “E-Panel” family provides users with precisely the functions they expect from a modern intelligent cable management solution. By comparison with the first generation of E-panels the new solution has numerous features which further simplify their work.

For example, the new E-Panels use a patch management system for the interconnect configuration. This means that the users can employ the Datwyler solution without special cables, i.e. with perfectly standard copper or fibre optic patch cables – which significantly reduces project costs.

The management unit automatically assigns IP addresses without first having to connect it to a computer. And whereas the connections between the management unit and the connected panels need to be configured manually in most of the systems on the market, Datwyler’s automatically scans the status of the ports on all the E-Panels connected. This “one-click solution” is extremely convenient for users and saves them a lot of time.



## **All information in real time**

In addition to this there is improved SNMP functionality for the rapid identification and management of end devices. The SNMP protocol “automates” network management, ensuring genuine end-to-end monitoring and management. This means that network administrators obtain all the requisite information via the network nodes, are able to search for and rectify errors and generate reports – all in real time.

Last but not least the Datwyler system offers an import function for CAD drawings, which can then be flexibly adjusted to the size required. This makes it possible to see the position of ports easily, quickly and with great accuracy. (awa) ■



Edge Computing:

# MICRO DATA CENTRE SOLUTION

The rapid spread of IoT technologies and edge computing is leading to the increasing decentralisation of data centre architectures, while data centre management is migrating to the cloud.

Hybrid IT environments with decentralised data processing at the “edge” of the network are widespread. Such a structure minimises latencies and reduces pressure on the core data centre. At the same time it is a relatively complex structure which can only be handled with the aid of a cloud-based management. Gartner has predicted that by 2020 over 90 percent of all organisations will administer their physical infrastructures using so-called “mixed cloud” architectures.

Datwyler can now provide an interesting “edge” solution for complex infrastructures like these: a Micro Data Centre (MDC). This ultramodern IT infrastructure solution is particularly suitable for use in branches – for example in retail, healthcare, banking or education – helping organisations to make full use of the opportunities provided by digitisation. In a compact 42U rack Datwyler’s Micro Data Centre contains a fully preassembled IT infrastructure solution including, among other things, an energy distribution unit, UPS, cooling unit, a cloud-based environment and security monitoring system as well as the associated sensors.

*System architecture of  
Datwyler’s MDC Solution*

## Ease of use

Such an IT infrastructure provides many benefits to users. Firstly, configurations for various operational scenarios are available ex Datwyler works, and these can be installed as a “plug-and-play” system by the user’s IT technicians. A local user interface and a cloud-based app with user-friendly software are also available for the MDC. Additional devices can easily be incorporated into the MDC by scanning the QR code.

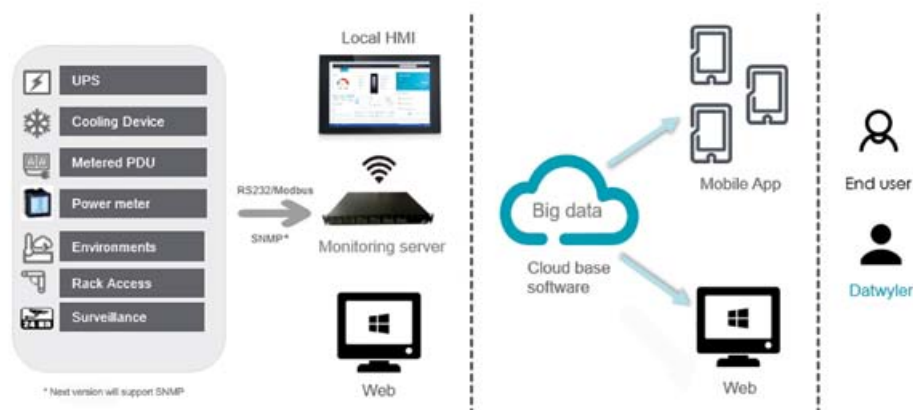
## High reliability

The reliability of the Datwyler solution is a second benefit. The quality of each MDC is tested by Datwyler prior to delivery. The en-

vironment and security monitoring system protects the equipment in the rack from malfunction and failure. All data are stored redundantly on local storage media as well as in the cloud. Last but not least, level 3 surge protection is implemented.

## Low TCO

Thirdly, the MDC features a relatively low total cost of ownership (TCO). Real-time monitoring of the UPS and cooling unit help to save energy. The cooling unit integrated in the fully enclosed rack ensures high power usage effectiveness (PUE). The solution is, moreover, extremely space-saving and simple to put into operation. ▶



### Ease of maintenance

Finally, it is worth mentioning ease of maintenance. The key components are of modular design throughout. The UPS has a maintenance bypass. Software upgrades can be downloaded from the cloud. And, should malfunctions occur, remote management of all the equipment in the rack allows authorised personnel to be alerted so that faults can be rectified before they have serious consequences.

The benefits mentioned above mean that the Micro Data Centre for edge applications is a perfect solution which is rapidly gaining acceptance. Users are increasingly focusing on monitoring software, considered to be the critical factor in this type of complete solution. The solution used by Datwyler for the MDC is innovative cloud-based software tailored precisely to meet the challenges of decentralised data processing.

### Focus on monitoring software

The central functions of the integrated monitoring system include real-time monitoring of the IT infrastructure equipment, environment and security, incident management, weekly and monthly reports and charts for the purposes of analysis, backup and restore, access via browser/server (B/S) and via app from a mobile device, as well as support available in both English and Chinese.



In addition to all this, the monitoring system has some important unique selling points. For example, you can plug a mini WiFi device into the USB port of the monitoring server to set up a private WiFi network for monitoring the MDC with any device. The monitoring server supports a 4G LTE mobile network connection, which allows remote monitoring even without an on-site gateway.

As well as monitoring equipment, environment and security, the server can also be used in future as an “all-in-one” solution to include IT hardware monitoring and cable management.

Datwyler additionally provides Value Added Services for the MDC, based on the cloud-based monitoring system. (anw) ■



panorama

BIM and IoT:

# “SMART” BUILDINGS

A pilot project in Rotkreuz, Switzerland, demonstrates the benefits to be gained from the connection of Internet-compatible devices in a building with a BIM model.

A major driver of digitised construction is “Building Information Modelling” (BIM), a method of creating a “digital twin” of the building even before construction commences. The construction industry and clients have long used BIM models to improve the planning, erection and operation of structures – or, more precisely, to create better structures. The digital twin not only replaces a flood of documentation, but can also provide a great deal of added value long after actual construction.

A current example of this is a pilot project in Rotkreuz, recently completed by the “BIM & IoT” Working Party in the Central Swiss Innova-





tion Park. Here various Internet-compatible IoT (Internet of Things) devices in the premises of the Innovation Park were connected to the BIM model for the first time.

### Executable prototype

The “BIM & IoT” Working Party is made up of representatives from six Swiss companies, including Datwyler as one of the founding members of the Innovation Park, and from the Department of Computer Science and the Department of Engineering & Architecture at the University of Lucerne. In several workshops between October 2017 and March 2018 the working party produced an executable BIM-IoT prototype with the help of two students who were responsible for programming.

Three types of Internet-compatible device in the Innovation Park premises were connected to their digital twin: motion sensors, smoke detectors and lights. These IoT devices make their information available online. The rooms can be seen in digitised form as a BIM model on a monitor, as can the IoT devices. The sensors in the devices react to movement or smoke. All this is immediately visible in the BIM model – as is the burn time of the light sources.

### Practical benefit

In the event of fire the fire brigade can use the networked sensors and digital model to call up real time data on the site of the fire and the location of people still in the building. All the IoT sensors connected via the PoE (Power over Ethernet) network can be included.

The IoT lights are another good example of a “predictive maintenance” solution, something which is of particular interest to facility management and helps to reduce costs. The effective burn time recorded in the BIM model means that all the lighting need no longer be replaced at intervals, only the lights which actually require exchanging.

The BIM-IoT prototype from Rotkreuz is another step on the path to ever more “intelligent” buildings. The basis for this development naturally is and remains a comprehensive network – wired or wireless – which interlinks all the building systems connected via TCP/IP, including all the IoT-compatible devices.

In future, moreover, it will be possible to supply many IoT devices with power via PoE – in other words via the data network. Datwyler has the requisite product portfolio and know-how for an appropriate PoE infrastructure. (bg) ■



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