



DIGITAL TRANSFORMATION IS THE ANSWER AT BKW

IN ASSOCIATION WITH



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business

ADAPTING TO THE MODERN ENERGY SECTOR THROUGH DIGITAL TRANSFORMATION

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BKW's CIO, Thomas Zinniker, discusses the energy and infrastructure services company's digital transformation journey and how technology is driving optimised and sustainable business operations

As the energy industry becomes increasingly focused on decarbonisation, digital transformation is vital to many companies' current and future relevance. One firm that stands at the forefront of this industry wide shift is Swiss multinational BKW. "Digital transformation is the answer, it's not a hindrance," says Thomas Zinniker, CIO at the energy and infrastructure company. Zinniker believes that decarbonisation is the market's biggest driver of digital transformation, and that the diversification this has inspired at BKW necessitates an IT overhaul to cater to its broader structure and wealth of new employees and data sets. The company has undergone a significant expansion over the past five years which has seen its employee headcount more than double to reach over 7,000 through acquisitions, as well as growth of the main business. Adoption of digital solutions has not only facilitated this growth but also enabled the firm to maintain a decentralised approach





AN INNOVATIVE APPROACH TO INTERNATIONAL SITE NETWORKING

UPC Business operates a software-defined global WAN for BKW. Stephan Ging, Director Solution Business Sales, outlines in the following interview why Managed SD-WAN is the ideal solution for the energy and infrastructure services group.

UPC Business is a leading provider in the area of site networking in Switzerland. How is business developing in the large enterprise segment?

We are present with our fibre optic network not just in the urban centres, but in all regions of Switzerland. This makes us an attractive partner for WAN solutions for large-scale enterprises from all sectors. Over the last 20 years we have grown steadily, over the past financial year alone by 9.2 percent. We are especially pleased that we were able to expand our share of the market in the security-sensitive financial sector. Our customer base includes more than half of all cantonal banks. We have succeeded in winning renowned customers in other sectors as well, such as insurance, industry, retail, energy and health.

“THE DIGITAL TRANSFORMATION CALLS FOR TOP-QUALITY NETWORK SERVICES.”

The digital transformation challenges companies on all levels. What kind of support does UPC Business offer?

The digital transformation calls for top-quality network services. The quality requirements for networking are rising. A communication failure can have a devastating effect on the affected company, both financially and with regard to its reputation. As a corporate network carrier we not only have the duty of supporting all forms of connectivity, but must also ensure that the data and applica-



Stephan Ging
Director Solution Business Sales, UPC Business

tions in the data centres and in the cloud are always available at every desired location and on every terminal. In addition, our clients have every right to expect that security is guaranteed at all times. We know our customers' requirements very well, because we inform ourselves thoroughly about their business models and analyse their needs exactly. In this way we can together develop the optimal solution. From the very beginning we point out what is feasible, and in cooperation with our partners, we offer individually designed overall solutions with significant added value.

Software-defined networks are in vogue and are replacing older technologies. What does this development mean for company networks?

The trend is moving toward networks which need to “understand” the applications. So beyond the actual transport of data, it’s also about supporting the continual operation of the applications in the best possible way. The SD-WAN technology used by BKW ensures this in an optimum way. Regarding digital

“SECURITY IS AN INTEGRAL PART OF SD-WAN SOLUTIONS.”

transformation, the topic of security also plays a central role. Security is an integral part of SD-WAN solutions. With them, the traditional separation between network and security vanishes. This is a great advantage for companies which are currently in the process of digital transformation. Other advantages: simpler integration of international sites, more flexibility, more efficient and powerful management, etc. SD-WAN uses primarily the Internet as the communications infrastructure and upgrades it with company-specific intelligence with central management.

UPC Business has been operating an SD-WAN for the energy and infrastructure services group BKW since 2018. With which needs did BKW approach UPC Business?

As a rapidly expanding and diversifying group with locations in Switzerland and abroad, BKW was looking for an agile solution for site networking with cloud and security integration. After the first invitation to tender we withdrew at first, because



from our point of view the SD-WAN market had not yet reached the maturity necessary for the defined requirements. BKW subsequently engaged in constructive dialogue with us, after which the invitation to tender was revised again. This final invitation to tender included a total of three parts: access, SD-WAN and security. Regarding SD-WAN, Cisco best met the demands. We offered the entire package, and in the end prevailed over our competitors. The deciding factor was ultimately the fact that both contracting parties were willing to set forth on a path for which the goal was clearly defined, although the way to get there was still unknown. In the course of realisation it became evident that BKW and UPC Business were agreed on one crucial aspect: We can and will pursue trailblazing solutions!

Which specific advantages does SD-WAN offer for BKW?

BKW can use a variety of connectivity options and cut costs in the area of access. The SD-WAN creates homogeneity throughout the group – for the communications capabilities, application performance, cloud access, Internet access, and security. BKW has a homogeneous overview of the service behaviour. Other benefits are the central management and the visibility it brings, the simple handling of adaptations and the easy access to cloud services. Over the long term, BKW will benefit from the innovative potential of a market-powerful software developer.

Which reasons are in favour of Managed SD-WAN?

At the forefront is easing the burden on the IT department. When it no longer has to take care of planning, implementation and operation of the WAN, it has more time for the needs of users. In the end, satisfied users are more relevant for the success of the digital transformation than operation of a WAN infrastructure is. It merely helps to create the ideal technical conditions.

What is your impression of the journey so far with BKW? What are the most important factors which led to the success of the project?

For both companies, adopting new technology involved special challenges from the very start. So far we have mastered these challenges well, because we work closely together and communicate openly.

UPC BUSINESS

20 YEARS OF CONTINUITY AND INNOVATION

Since 1998, UPC Business has gradually developed into a **full-service provider for business customers**. The spectrum of the innovative ICT offering ranges from compact standard solutions for SMEs through to customised project solutions for complex company networks. As a general contractor with an extensive partner network, today UPC Business meets all telecom and IT requirements of SMEs and large enterprises.

The company's own broadband network, which consists of 95% optical fibre, facilitates network connections throughout the whole of Switzerland with transfer capacities of **up to 100 Gbit/s**. Mobile voice and data services are provided by an outstanding Swiss mobile network in top quality.

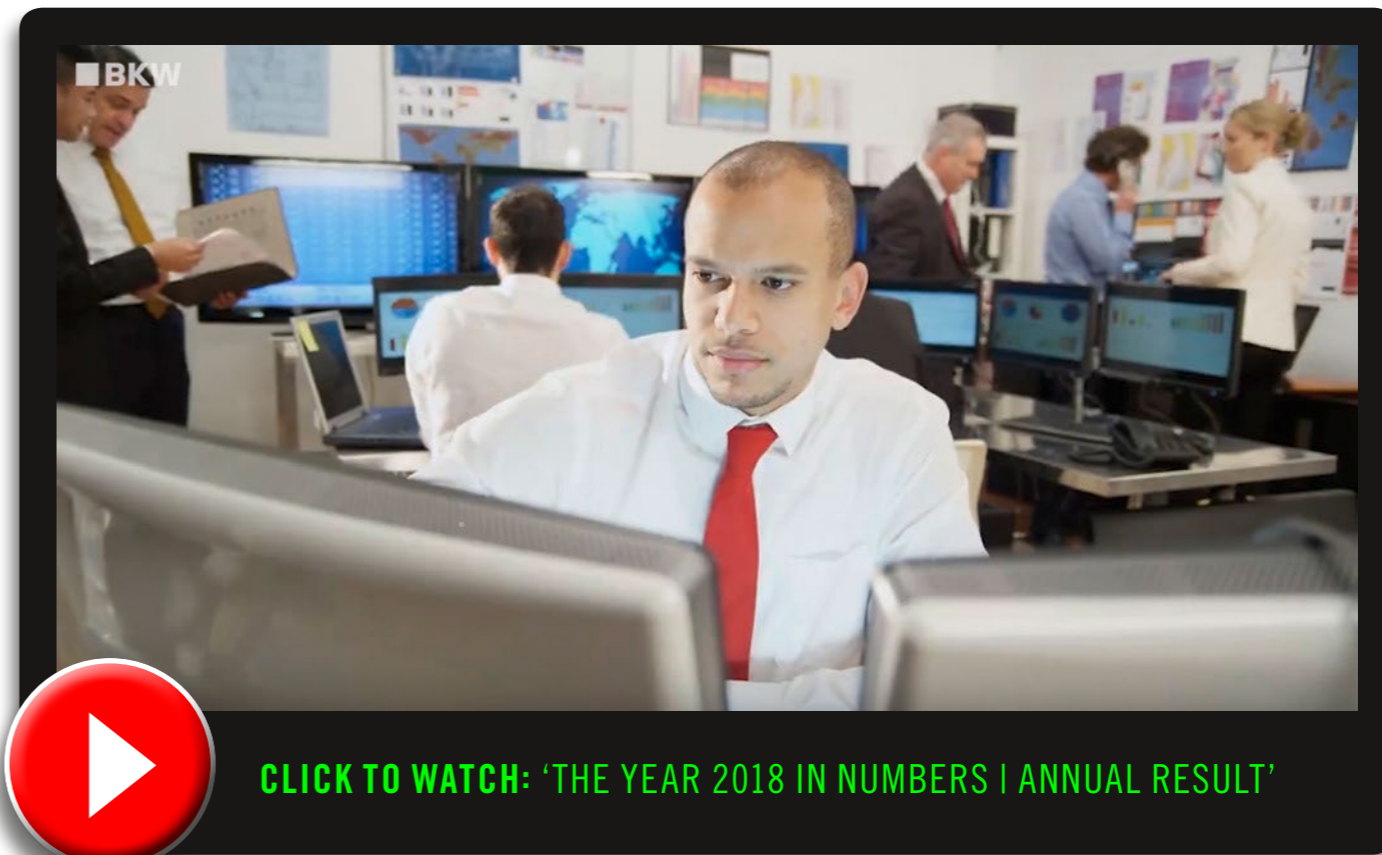
UPC Business stands for customer proximity, innovative technology, an established partner ecosystem and high customer satisfaction. Today, **tens of thousands of companies** from all lines of business rely on the services from UPC Business.

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“Our credo is to be as decentralised as possible”

Thomas Zinniker,
CIO, BKW AG



to its operations through networking rather than integration. “We do not intend to integrate the acquired companies completely, so our approach is to network the acquired businesses and benefit from the various unique skills each company brings,” says Zinniker. “Our credo is to be as decentralised as possible, and only centralise when absolutely necessary.”

Within the core business, Zinniker has overseen the adoption of a host of modern methodologies to enable the firm to focus on the essentials and significantly mitigate the length of its

planning cycles. “We’re using a Scaled Agile Framework (SAFe) to manage the whole portfolio of projects, we’re using Scrum as an agile implementation methodology, and we’re using Design Thinking methodology to define and develop new products and business models,” Zinniker explains. This gears BKW’s workforce to a level of flexibility that enables it to make the most of the speed afforded by newly-implemented technologies. “In the past, the planning cycle at BKW was in decades, and we have now restructured to plan in quarters. Today what



1898
Year founded

7000+
Approximate number
of employees

really matters is what is happening next year.”

This forward-thinking laying of foundations is augmented with a potent array of partnerships, driving success across each of BKW’s business units. “Partnerships are essential for our success, because speed is key today,” Zinniker notes. “Special knowhow is essential. We have a number of partners for specific areas, like Siemens

for smart metering and Microsoft on the Cloud side.” BKW has also partnered with the Business Branch of UPC Switzerland (UPC Business), the country’s largest cable operator, to power its connectivity with speed, security and reliability. “UPC Business is our partner for the whole network and interconnectivity. It is vital for the newly-acquired businesses to be connected to our network rapidly, so we are using

EXECUTIVE PROFILE

Thomas Zinniker

Thomas Zinniker joined BKW in 2016. As CIO he is responsible for developing the ICT services supporting the change of BKW from a pure utilities company to an international Infrastructure Services Supplier. Thomas Zinniker has a degree in Computer Science and Business Administration. Prior to BKW, Thomas worked in different global companies as software engineer, consultant and CIO





software defined virtual networks to enable this.” It is also planned that BKW’s partnership with UPC Business will provide the essential capacity to manage its Europe-wide wind park network with efficiency, as well as facilitating asset integration into the network. This integration will provide BKW with sharper insights into productivity and maintenance necessities. “The connectivity of those wind parks is absolutely essential, as you can’t have your own guys under each windmill monitoring and maintaining them all the time,” Zinniker comments.



In the wind business, its WindLog tool incorporates AI to monitor wind turbine components, such as oil temperature and gear box integrity.

Another core partner for BKW’s digital strategy is Microsoft, which drives the firm’s Cloud capabilities, powering its core IT functions through the Office 365 platform and providing a customer relationship management (CRM) platform in Microsoft Dynamics. “Our use of Cloud technology is very broad, and we are planning to offload further processes from our data centre into the Cloud wherever it’s useful,” says Zinniker. When selecting Siemens for its smart metering system, Zinniker notes one of the core requirements for the smart metre management system would need to be based on Cloud technology for flexibility, agility and scalability. “The smart metre produces roughly 40,000 times the amount of data over a traditional metre,” Zinniker says, highlighting the importance of the system being built using technology capable of managing vast data volumes. Big Data is a historic component of BKW’s operations, with a digital twin of the whole grid having been in operation for the past 10 years. This enables BKW to

simulate loads and scenarios to enable data-driven management of the system to optimise maintenance and expansion of the grid under various scenarios in the near term and to strategic level up to 25 years. With its expansion over the past decade, BKW has access to a wealth of new data sets through its acquired engineering companies. “By combining that data, we have the capability to develop completely new products to help our customers to make better decisions, or support them with deciding where to build new streets, new grids, or whatever infrastructure is necessary,” Zinniker says.

Change management throughout the expansion has illustrated the faith

BKW has in its employees, placing new tools in their hands and asking how best they can augment their roles with the new technologies. “We support our staff with adapting to and embracing new technologies,” Zinniker reflects. “The Office 365 rollout throughout the organisation is one example where we actually said: ‘We’re not going to tell you how you have to work. Here is a toolbox. Just use it. Play around with it. We will help you to understand it, but you have to find your own way of working.’ Through this method, people could see for themselves that the tool would help them to manage new challenges in the market.” In action, the wider internal benefits of the technologies have bec-



ome clear. “It’s the new way of working,” Zinniker adds, discussing the capacity for remote work afforded by disruptive solutions. “Employees have much more freedom. Work wherever you are, whenever you like, having access to all the data to work on topics whenever it’s feasible.” For end-users, there are myriad boons to their relationships with BKW services and solutions, and Zinniker mentions an intriguing example of the positive impact of big data to firefighter decision-making. “With mobile tools we have the capability to

provide any kind of information they need on the spot,” says. “We deliver vital information for firefighters when they are tackling a fire in a building, because electric installations can be quite dangerous for firefighters,” he says. “They can see the data immediately on a tablet, look at what’s installed there, where to find the nearest point where they can switch off the electricity for the street, or for the block.”

Zinniker says that BKW’s adoption of emergent technologies shows no signs of slowing. As it continues to invest in



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Thomas Zinniker,
CIO, BKW AG

COMPANY FACTS

- BKW's employee headcount has more than doubled since 2014, reaching over 7,000
- Around 50% of Europe's energy is consumed within buildings
- The smart metre produces roughly 40,000 times the amount of data over a traditional metre

renewable energy solutions, BKW is also increasing its potency in the efficient building sector. "We are developing a large business for building solutions and installations, as around 50% of Europe's energy is consumed within buildings, says Zinniker. "We are helping companies and consumers to be much more efficient within their buildings, and therefore save energy. In the engineering business, we have a number of engineers specialised in energy efficiency who will drive uptake of new technologies that manage energy far more sustainably." Zinniker stresses that digital transformation is not seen as a hindrance or burden at BKW, but that it is instead the answer to many questions asked of the energy and infrastructure sector by the modern world. "I think our sector was perceived 10 years ago as a dull, slow industry," he says. "It has now become one of the most interesting through the adoption of technology, the changes of the markets, and new players coming in. It's extremely interesting to be here." ■





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