

2016
#1

MINKELS MAGAZINE

**INTERVIEW - Eric Schwartz,
President Equinix EMEA:
“Telecity acquisition
helps us expand into new
markets in Europe.”**

**Cegeka deploys modular
data centre for its
European ‘trusted cloud’
with Minkels.**

**German company
23media expands into
Europe with dedicated
hosting offering.**



MatrixCube front view



Minkels introduces the MatrixCube

A reliable IT environment has become more and more important. It has evolved into a business critical necessity and contributes to a company's raison d'être. There are still plenty of companies that do not want to outsource their IT; they prefer to keep their infrastructure within their own organisation. Therefore, Minkels and Legrand have developed the MatrixCube – a pre-configured, turnkey IT infrastructure solution specifically designed for small and medium-sized companies. It is intended to relieve the IT Manager of all IT infrastructure concerns.

BASIC CONFIGURATION

- Server racks (2x)
- Row-based cooling unit (1x)
- Power rack: power distribution (1x) and UPS (1x)

EXPANSION MODULES

- Additional server rack and cooling unit
- Additional power rack (to 2N, for maximum redundancy)
- Additional autonomous time for the UPS units
- Fire extinguishing systems
- Monitoring
- Service and maintenance with the option of 24/7 proactive monitoring

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BENEFITS

- Reliable and cost-efficient server room solution.
- Building independent, thus easy to deploy.
- Energy-efficient housing for your IT infrastructure.
- Use of proven technologies.
- Turnkey solution, including installation and putting into operation.
- Customer-specific modifications are possible.

COLOPHON

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Minkels is a subsidiary of the Legrand Group. This global, publicly traded organisation has companies and offices in more than 180 countries with revenues of 4.5 billion Euros worldwide. Legrand markets a range of low voltage equipment and data networks from different manufacturers for the housing, utility construction and industrial sectors.



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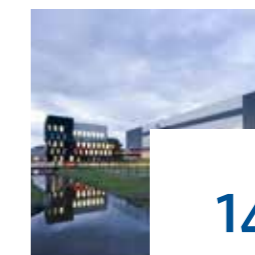
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ESI Group deploys HPC Center in Paris with Minkels and Legrand. ESI Group opened a brand new High Performance Computing (HPC) Center in Paris last December to support its European HPC projects.



Minkels unveils ROI Calculation Tool for well-founded Cold Corridor investment from Minkels to address market demand. As part of its knowledge-sharing efforts, Minkels has released a new white paper on ROI calculation for aisle containment investments.

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MINKELS STRENGTHENS ITS REACH IN THE NORDICS

Minkels recently became a member of The Node Pole Alliance, which strengthens Minkels' market position for delivery of data centre solutions in the Nordics. The Node Pole Alliance is an international network of more than 50 leading technology and construction partners who have guaranteed their ability and capacity to deliver data centre services in the very north of Sweden.

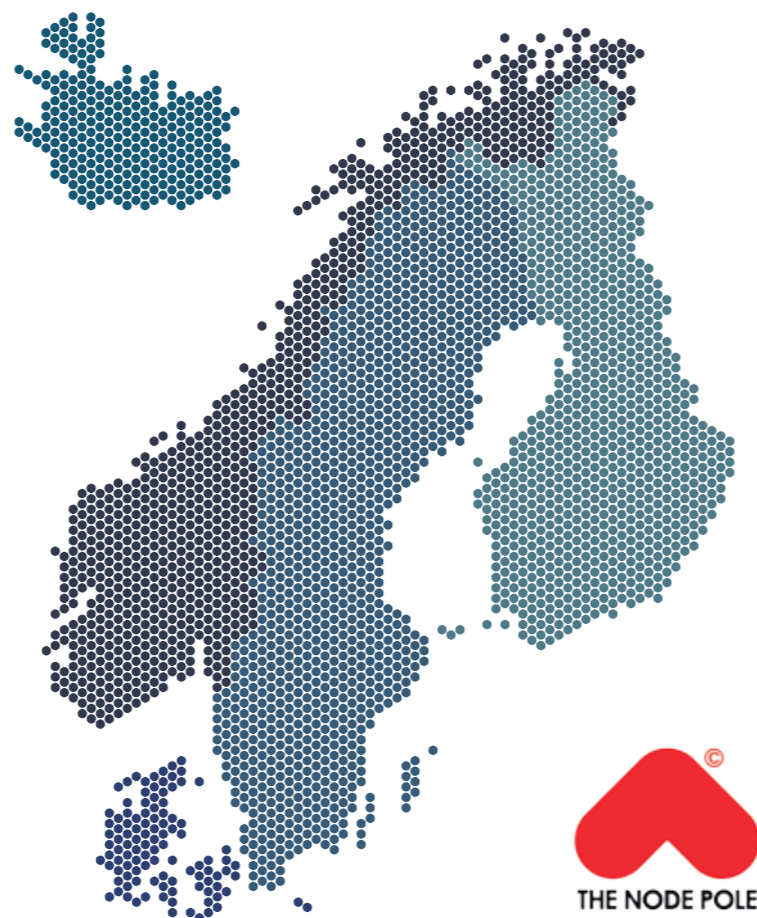
ARCTIC CIRCLE

The region in Sweden encompasses four municipalities at the Arctic Circle. It has earned the epithet 'The Node Pole' due to its northern position and emergence as a global hub for data traffic and data management innovations. Today, the region is already home to ten data centres and quite impressive brand names of which Facebook in Luleå is probably the most well known.

"We are very proud to be a selected member of The Node Pole Alliance now," said Ramón de Groot, Director Export at Minkels. "Since Minkels was acquired by Legrand in 2012, export to the

Nordics has become a key strategic objective for us. Currently, we are expanding our partner ecosystem in the entire Nordics region, with a variety of solution and distribution partners

already joining. Becoming a member of The Node Pole Alliance will strengthen our market position and those of our partners." ■



LAUNCH OF THE MATRIXCUBE IN EUROPE



After successfully launching its MatrixCube 'mini data centre' solution in Belgium last year, Minkels will now extend this offering to other geographical regions in Europe and beyond.

Starting with a release in The Netherlands first half of 2016, other countries are soon to follow. The new fully integrated solution, delivered through Minkels' international partner channel, caters to the needs of SMEs planning to deploy on-premise IT

infrastructures as well as enterprises implementing hybrid environments.

The Minkels MatrixCube is an easy-to-install and highly redundant - N or N+1 or 2N - data centre solution with racks, cooling, uninterruptable power supply (UPS), power distribution units (PDUs), cable management and monitoring included. Its modular features also make it an easy-to-expand solution, while airflow optimisation measures ensures energy efficiency, resulting in significant

OPEX savings. After first launching the MatrixCube in The Netherlands, Minkels expects to launch the new solution in other countries as well, including France, UK, and Switzerland where Minkels has its offices. Worldwide export regions might follow, depending on global customer demand.

For more information on the Minkels MatrixCube, read the featured article in this magazine (page 10). ■

ENERGY EFFICIENT DATA CENTRE TECHNOLOGIES DELIVER SIGNIFICANT COST SAVING BENEFITS

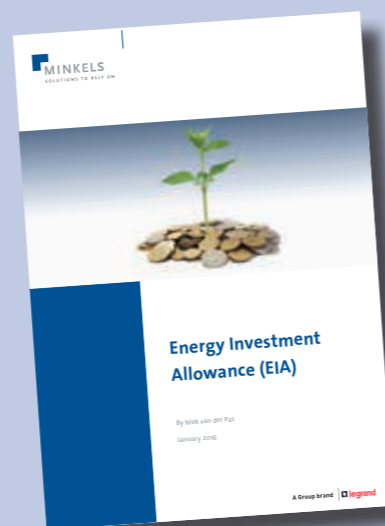
Energy efficient data centre technologies deliver a fast Return On Investment (ROI) because of significant energy saving benefits. Initial investment costs of these products are somewhat higher though, but countries like The Netherlands and the United Kingdom have tax incentives put in place to overcome this 'capital cost barrier.' In The Netherlands, the scheme is called 'Energy Investment Allowance' (EIA) while in the UK it is called 'Enhanced Capital Allowance' (ECA). Both

schemes are supported by a list of qualifying energy-efficient data centre equipment.

To give an idea of the potential tax incentives, let's have a closer look at the EIA scheme in The Netherlands and to which Minkels solutions it may apply.

Energy investment costs eligible:

- Purchase price
- Implementation costs
- Adjustment costs existing company assets
- Energy consulting services



Minkels solutions applicable:

- VariCondition DX cooling (row-based)
- VariCondition H2O (water cooling)
- Next Generation Cold Corridors
- Free Standing Cold Corridors
- VariconPower UPS
- Vertical Exhaust Duct (VED)
- Airflow optimisation packages for Varicon racks

This example of EIA tax benefits is only applying to The Netherlands. In order to qualify for this scheme, a minimum investment of 2,500 euro applies while an application must be finished completely within three months after purchase. ■

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Cloud causes a shift in infrastructure demand



“Hybrid or not so hybrid, whether local or global, Minkels has a clear strategy to serve all different kinds of customers,” says Christiaan van Terheijden, CEO of Minkels.

The year 2016 will be a year where Minkels is set to accelerate further global growth. Last year we already added some great customer names to our portfolio, including a global investment bank headquartered in Switzerland and a large government organisation from London. Besides that, our France and UK branches vastly outperformed sales expectations. It confirms that our adopted ‘global presence with local excellence’ strategy is paying off.

We’re also doing well in a variety of export regions. By joining the Node Pole Alliance last December, we expect to strengthen our position in the Nordics. One of our recent customer successes in the Nordics includes a leading Swedish research institute carrying out advanced, global studies in the area of computer science. Other growth regions include Germany, Spain, Italy, Russia and Dubai. The Legrand network of sales organisations helps us accelerate our export market results in these countries.

QUOTE GENERATOR

Perfecting Minkels’ product configuration solution in close cooperation with software development partner Sofon, has laid a solid foundation for expected customer growth in 2016. The recent addition of a quote generator to the platform now enables sales employees and partners to automatically create a complete bid package that can be instantly available to clients. In 2016 we will launch a cloud-based version of this product configuration tool to accommodate partner and end-customer needs globally. Our ongoing investments in Sofon are inseparable from Minkels’ mass customisation strategy and meeting evolving partner and end-customer needs on a global scale.

data centre



We expect 2016 to be a year of shifted customer demand. Cloud and virtualisation adoption are still on the rise, with cloud service providers further consolidating their global market positions. This year we expect it to have a significant impact on data centre investment decision-making. Cloud providers will move up in the supply chain and be empowered to implement data centre infrastructure that best suits their very own needs. Current EU-level data privacy issues and political discussion (such as Safe Harbour and German Data Protection Act) will enhance this trend, with a spike in European data centre build by cloud companies as a result. Even some of the world’s largest cloud services companies operating out of Silicon Valley are heading in that direction. An ever-increasing move to hybrid deployment models on the other hand, will strongly empower end-customers when taking data centre infrastructure decisions.

Cloud adoption will also have an impact on colocation providers establishing their infrastructures. Colocation customers will increasingly choose to utilise highly connected data centres with options for private access to cloud services through direct network links.

FOLLOW-THE-CUSTOMER

Minkels’ mass customisation strategy with a global platform and ‘follow-the-customer’ attitude make sure that all kinds of customers, from (wholesale) colocation companies to cloud players and end-customers with (partly) on-premise deployments, will get a solution that completely fits their individual data centre infrastructure requirements. Modularity, standardisation, integrability and energy efficiency are the core ingredients to this mass customisation strategy.

To follow customer needs, we’re continuously broadening the Minkels portfolio adding new innovations also in joint cooperation with Legrand. Last year, several of Minkels’ global accounts including Atos, Crédit Agricole and Equinix have already experienced the benefits and ultra-flexible features of the award-winning Minkels Free Standing Cold Corridor. This highly modular and cost-efficient aisle containment solution doesn’t need an upfront investment in racks. The Minkels innovation was recently recognised by Frost & Sullivan as a ground-breaking solution in terms of modularity and flexibility. More specifically,

the solution was honoured with the ‘Frost & Sullivan 2015 New Product Innovation Award,’ while in December its innovativeness also got rewarded with a place in DatacenterDynamics’ EMEA Awards finals.

For enterprises and SMEs using hybrid IT we introduced the MatrixCube, a small-scale and fully integrated total data centre solution. Its modular features make it an easy-to-expand solution, while the airflow optimisation implemented ensures cost-efficiency through low energy usage. During 2016, we already expect to expand this portfolio by launching a new innovation, the MiniCube. This will be an integrated all-in-one data centre solution like the MatrixCube, but smaller with more standardised and plug & play features. The launch of fibre optic connectivity solutions in the course of 2016 will be another milestone for us, representing great synergies with products delivered by Legrand.

Hybrid or not so hybrid, whether local or global, Minkels has a clear strategy to serve all different kinds of customers. Our modular solutions and flexible approach ensure that individual data centre infrastructure needs can always be met. ■

German company 23media expands into Europe with dedicated hosting offering

Impressed by the innovativeness and energy efficiency of the Minkels Next Generation Cold Corridors, German hosting company 23media chose to standardise their data centre infrastructure on the Minkels brand. With currently 130 racks deployed in two Tier 3+ data centres in Frankfurt, 23media is planning to expand its presence with Minkels to Amsterdam and London in the near future.

30-40% Year-over-year growth

Founded in 2008, 23media is a fast-growing hosting provider with 30-40% growth year-over-year and headquartered in Münster, Germany. The company is focused on business-to-business markets and serves about 1,000 customers worldwide. From its highly secured private suites inside the Frankfurt-based data centres of Global Switch and Telehouse, 23media delivers enterprise-grade solutions including dedicated servers, colocation, and managed IT services to their global clientele.

“It’s pretty amazing that Minkels was the first data centre supplier in Europe to commercially launch the Cold Corridor solution,” says Tobias Rehn, CEO and owner of 23media. “Energy efficiency and the use of green energy are very important to us. It not only helps us address environmental issues for our customers but also provides us with the ability to establish a high quality proposition at relatively low cost. The Minkels Cold Corridors are of significant help in creating enterprise-grade stability and availability while also providing efficiency when it comes to the payments for our electricity bills.”

For customers in need of establishing cloud infrastructure, the company is able to deliver those solutions on a project basis as part of their managed IT services proposition. Although 23media’s main proposition is

focused on dedicated servers, colocation and connectivity, some customers ask them to install and manage private cloud on top of dedicated infrastructure. In that case, they’re definitely able to meet customer demand.

“Minkels racks and aisle containment have the look-and-feel that meets enterprise requirements.”
Tobias Rehn, 23media

CLOUD VS. DEDICATED

“The delivery of cloud services is part of our managed IT services proposition, one of our major propositions actually,” adds Mr. Rehn. “On the other hand, the main part of our client



“The flexibility of the Minkels racks is pretty impressive,” says Florian Beny, CTO of 23media.

“Dedicated server provider, 23media, has highly educated employees and utilises premium brands for its equipment.”

base is located in Germany and German people tend to have a great fear for bringing their data to the cloud. For efficiency purposes, a growing part of our customers are now utilising private cloud installed on hardware they own, but they almost never want to put their data into a public cloud environment.”

“Partly this is caused by very strong data privacy protection rules in Germany but even more it has to do with fear of losing sensitive data,” adds Mr. Rehn. “For that reason,



“While connectivity is an important part of our proposition, we have been reinvesting a lot of our revenues back into our network,” says Tobias Rehn, CEO and owner of 23media.

German consumers are even afraid to use all kinds of web-based solutions from abroad. I also don’t know any large German company deploying their infrastructure in a public cloud infrastructure.”

As 23media is a fast growing company with impressive growth figures, one may well ask where the secret of their success lies. “While connectivity is an important part of our proposition, we have been reinvesting a lot of our revenues back into our network,” adds Mr. Rehn. “This, and our ability to deliver enterprise-grade infrastructure with a flexible, pragmatic approach finally pays off. During the last couple of years we have seen a market change in Germany, with customers choosing high quality over low budget offerings. We have highly educated employees who are in close contact with customers and we are utilising premium brands only for routers, switches, racks, and so on. Due to our close partnerships with a selective amount of vendors, we’re still able to offer good value for money.”

BRAND IMAGE

Mr. Rehn says that the use of Minkels data centre solutions is adding to the enterprise-level brand image 23media pursues. “When we compare ourselves to competitors, still not so many companies in Germany are utilising aisle containment. The Dutch market is quite ahead of Germany for that matter. Customers are always impressed when we take them on-site in our data centres. The moment we show them the Minkels racks and aisle containment, they really love it. It actually works. Minkels

racks and aisle containment have the high quality look-and-feel that meets enterprise requirements.”

As 23media delivers high-density infrastructure to its customers, the company has chosen to deploy 46U racks from Minkels. The modularity and thus flexibility of the rack components enabled 23media to have an easy install of extra wide and extra deep formatted racks while facilitating the implementation of high-density solutions.

“The 46U rack format makes engineering work much easier when taking care of server and networking cabling, and installation of power distribution units,” says Florian Beny, CTO of 23media. “The flexibility of the Minkels racks is pretty impressive. It also provides us with an easy solution for the cooling of our networking equipment. Minkels is one of the few in the market offering something like this, with networking equipment adjusted airflow optimisation from the side.”

“We have had some negative experiences with one of the other leading data centre vendors in the market,” adds Mr. Beny. “Minkels is different, they are really awesome from the first contact to the final delivery of racks, aisle containment and cable trays on top of the racks. Their people put a lot of time in to us as while whilst listening to our unique requirements, which ultimately resulted in a good package deal with good prices.” ■



Most recent order 23media

Minkels engineers have recently deployed an integrated data centre infrastructure in 23media’s Telehouse, Frankfurt-based private data centre suite. This solution includes:

- 40 Minkels 46U Varicon® racks
- 1 Minkels Next Generation Cold Corridor®
- Integrated Minkels cable trays on top of the racks

Minkels extends its 'mini data centre' offering to other geographical regions

After successfully launching its MatrixCube solution in Belgium last year, Minkels has planned to extend the release of this integrated compact data centre solution to other countries. Starting with a release in The Netherlands first half of 2016, other countries are soon to follow – benefiting on-premise IT infrastructures of SMEs as well as hybrid enterprise environments.



The energy efficient VariCondition DX compressor adapts its cooling automatically to the MatrixCube cooling capacity actually needed.

Integrated innovations

Minkels MatrixCube is another great example of the natural synergy between Minkels' and Legrand's solution portfolios. Minkels MatrixCube brings together the best of both worlds, with proven technologies adapted to specific, small-scale data centre requirements. These integrated data centre innovations from Minkels and Legrand include:

■ ROW-BASED COOLING

Minkels VariCondition DX cooling is a precision cooling solution specifically developed for demanding data centre environments. Its energy efficiency contributes to the cost-efficiency of the MatrixCube. The energy efficient compressor adapts its cooling automatically to the cooling capacity actually needed. Further, the system unit utilises an energy efficient refrigerant, R410A.

■ UPS

Minkels MatrixCube utilises the Legrand DK 6kVA UPS system for its uninterruptable power supply. This long-proven and reliable UPS technology from Legrand has a nominal power of 6000VA and an active power capacity of 5400VA.

■ DOOR SYSTEM

The 19-inch Minkels Varicon racks incorporated in the MatrixCube feature glass door panels on both the front and back. This to support the closed loop cooling strategy. This creates a microclimate, because there is no interaction between the MatrixCube and the server room.

■ POWER DISTRIBUTION

The high quality Minkels PDU's and intelligent PDU's are vertically mounted, with power capacities ranging from 16A to 32A and colour differences for A (black) and B (red) feeds.

■ CABLE MANAGEMENT

Minkels' and Legrand's modular cable management solutions have been integrated and fully adapted to this small-scale data centre environment (on top and inside the racks), with an emphasis on safety, clarity and ease-of-use.

■ AIRFLOW OPTIMISATION

Studies conducted by Minkels have resulted in the use of airflow optimised data centre accessory packages, which makes a significant contribution to its energy efficiency.

■ MONITORING

Minkels VariControl-S Pro controller (MRM0020LS) features 8 sensor ports, 20 dry contact ports and 2 extension ports. The technology is responsible for continuous monitoring of temperature, energy usage, availability and safety of the MatrixCube in use. For remote control options, VariControl-S can be connected to a central system in the cloud. This way, the status of IT equipment housed in the MatrixCube can be checked online. Also, automated alerts can be added for 24/7 early warning messaging.

To help SMEs and enterprise organisations implement reliable small-scale data centre solutions, Minkels launched its MatrixCube last year. The Minkels MatrixCube is a fully integrated and easy-to-install 'mini data centre,' with racks, cooling, uninterruptable power supply (UPS), power distribution units (PDUs), cable management and monitoring included. Its modular features also make it an easy-to-expand data centre solution, while airflow

optimisation measures ensures energy efficiency, resulting in significant OPEX savings.

"The initial launch of MatrixCube in Belgium turned out to be a very successful one," said Vincent Liebe, Marketing Manager, Minkels. "The MatrixCube provides SMEs and corporate customers with a highly redundant - N or N+1 or 2N - flexible and scalable solution for their on-premise IT housing needs.

"The initial launch of MatrixCube in Belgium turned out to be a very successful one."
Vincent Liebe, Minkels

After first launching it in The Netherlands, we expect to launch it in other countries as well, including France, UK, and Switzerland where Minkels has its offices. Our targetted export regions might follow, depending on global customer demand."

Deployment, installation and maintenance for the Minkels MatrixCube is done by trained and certified Minkels Partners. Although easy-to-install, some data centre expertise

is needed for a seamless implementation. A variety of service packages make sure that ordering and installation are fully adjusted to individual end-customer requirements. ■

MATRIXCUBE VS. MINICUBE

Minkels MatrixCube is a small-scale but modular thus easily expandable data centre solution. It's a full-featured and fully integrated 'mini data centre' with energy-efficient characteristics and a basic capacity of 2 to 3 racks and 2.5 to 5 kW power supply.

During 2016, Minkels expects to launch its MiniCube - a simple and truly Plug and Play data centre solution for small-scale use. It's a fully integrated but standardised mini data centre with a capacity of just 1 rack, 1 UPS and 1 PDU.

	MINICUBE	MATRIXCUBE
Standardisation	high	high
Modular features	no	yes
Cooling	in-rack	1x row-based DX (basic configuration)
Racks	1x	2x (basic configuration)
Power distribution	1x	1x (basic configuration)
UPS	1x	2x (basic configuration)
Scalability	no	yes
Redundancy	N	N, N+1, or 2N
Energy efficiency	standard	airflow optimised
Plug and Play	yes	yes, in conjunction with installation services package through Minkels partners
Completeness	total solution	total solution
Monitoring	onsite/remote	onsite/remote
Cost-efficiency	high	high
Target use cases	hybrid IT, SME	hybrid IT, mid-sized businesses
Market delivery	distribution and solution partners	distribution and solution partners



MatrixCube: UPS



MatrixCube: Power distribution



MatrixCube: Power distribution rack



MatrixCube: Server rack



MatrixCube: DX Cooler

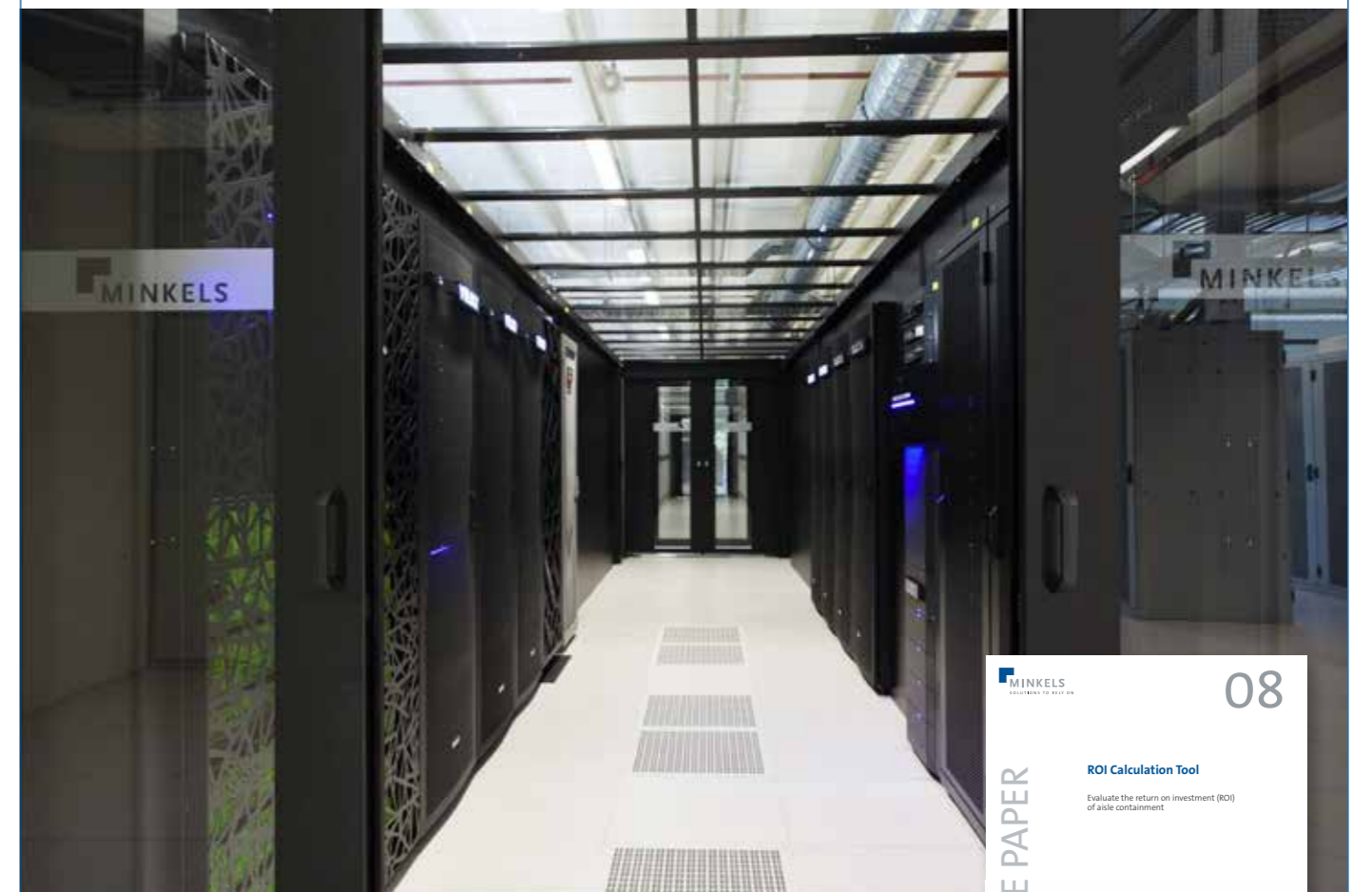
WHITE PAPER 08 - ROI Calculation Tool

Evaluate the Return On Investment (ROI) of aisle containment

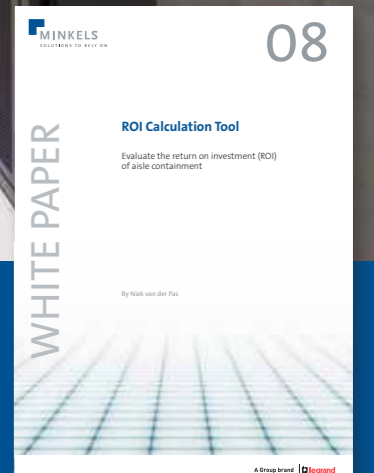
NEW

Utilisation of aisle containment in the white space provides tremendous opportunities for data centre operators and its users to save on energy consumption. Minkels has reckoned that an energy reduction of at least 30% to 40% is feasible just by installing aisle containment infrastructure, called Cold Corridors. Cooling systems and also power infrastructure are the other main ingredients for establishing energy efficient, predictable and reliable data centre infrastructure.

Minkels has published a new white paper. This white paper examines a way to calculate and evaluate the return-of-investment (ROI) of an investment in aisle containment. For data centre operators and its users it will provide financial and operational guidance when considering aisle containment for their data centre infrastructure. This paper also highlights the reasons why Cold Corridors emerge as the preferred aisle containment best practice. Read more on page 30 of this magazine.



A free copy of Minkels' new white paper is available on:
www.minkels.com/whitepaper



“Telecity acquisition helps us expand into new markets in Europe”

Eric Schwartz, President Equinix EMEA

With the Telecity Group acquisition finalised some weeks ago, Equinix has expanded its reach into new data centre markets including Dublin, Stockholm and Warsaw. These data centre locations were high on the wish list of Equinix clients for a reasonable amount of time, says Eric Schwartz. Minkels Magazine sat down with Mr. Schwartz to talk about the acquisition, other developments and his vision on the market.

us expand into



Equinix Amsterdam AM3

Eric Schwartz, President Equinix EMEA

As President of Equinix EMEA, Eric Schwartz spearheaded Equinix's expansion into Europe. He oversees current management, strategy, and growth for the company in EMEA. Mr. Schwartz joined Equinix in 2006 from BellSouth where he was VP of IP Communications. Prior to joining BellSouth, he was Executive VP of real estate development company, Harold A. Dawson. Mr. Schwartz also is a former strategic consulting member of McKinsey & Company.



“We continuously have to find the right balance in global execution whilst meeting local requirements,” says Eric Schwartz.

“Our clients have, for sometime, been asking us to expand the Equinix proposition into Dublin, Stockholm and Warsaw. We have established strong positions in competitive data centre markets such as London, Frankfurt and Amsterdam, but these important locations were still missing from our list - as was frequently highlighted in Equinix client survey results. Now, with the Telecity acquisition finalised we can finally say to these customers: we can help you, with high-class facilities and also new services. It fits our strategy of providing more choice and more capacity.”

How important is the Telecity acquisition for Equinix?

“About nine years ago, Equinix expanded into EMEA with data centres in four countries. A year later we added our data centre proposition

in The Netherlands, while in 2013 we started a Greenfield data centre operation in Dubai (ed., also read the interview with Jeroen Schlosser, Managing Director of Equinix Middle East in Minkels Magazine 2015-1, page 8-9: Minkels provides an identical Equinix look-and-feel worldwide, also in Dubai*). Although size-wise not as big as our other premises, Dubai is a hotspot for financial and commercial industries worldwide - a fast growing market and a hub for the Middle East thus extremely important for us.”

“The Telecity acquisition is the largest acquisition ever done by Equinix. It means we'll be able to substantially expand our business in existing EMEA markets while heading into new markets. The acquisition increases the total number of data centre locations available in EMEA to thirteen. It provides us

with tremendous future opportunities in helping enterprise customers adopt cloud technology and experience the benefits of innovative networking technology.”

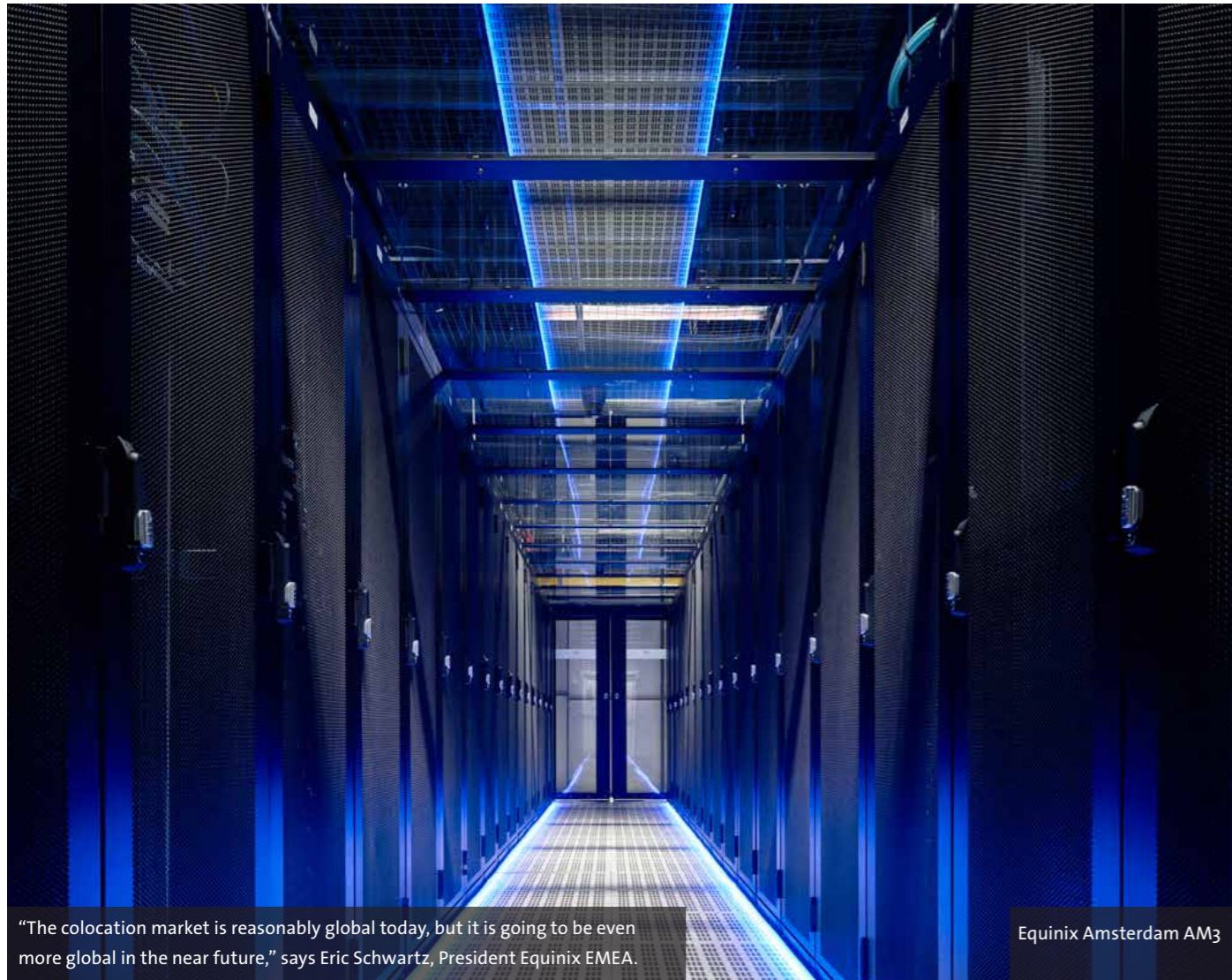
Talking about innovative networking technology, what is your view on shifting patterns in data centre infrastructure including SDN?

“When it comes to software defined networking, it's a question of 'how' not 'if.'

“The partnership with Minkels helps Equinix flexibly meet local requirements.”
Eric Schwartz, President Equinix EMEA

The market volume and capability of SDN is clear enough. Enterprises are using it in their networks and it's very central to the Equinix interconnection platform too. We ourselves invested a lot in SDN for the Equinix Cloud Exchange, which now features an API platform providing an easy and secure way for enterprises to connect their infrastructures.”

“Today, people, enterprises and data are all distributed. This market trend asks for SDN, while SDN is also necessary to support the Internet of Things developments and broader commercial opportunities including Collaboration. Today's enterprises, even the ones at a relatively small scale are operating around the world in global markets. What they are looking for ultimately is the performance and functionality of their applications to an extent that they can be more efficient in their



“The colocation market is reasonably global today, but it is going to be even more global in the near future,” says Eric Schwartz, President Equinix EMEA.

Equinix Amsterdam AM3

operations. Those are core elements of what SDN is able to deliver.”

How important is ‘interconnection’ for the international colocation market, now and in the near future?

“Confirmed by market research analysts from Gartner and Forrester, the volume of interconnection in colocation will continue to rise. The colocation market is reasonably global today, but it is going to be even more global in the future. We expect our cars to be connected, our planes and our smartphones, to name a few. That’s why interconnection is core to Equinix’s strategy and we are being presented in the market as the interconnection specialist for our customers.”

Are there any differences in Equinix’s market approach in EMEA, APAC and the US?

“We are largely consistent in our proposition across the world, although not completely. European countries are more focused on ISO certifications while in the US they are less ISO minded. And European customers tend to have quite a cautious attitude towards data privacy, more than companies elsewhere in the world.”

What does it take for Equinix to deliver on that?

“We continuously have to find the right balance in global execution whilst meeting local requirements. For that, we’re dependent on our key supplier partners who enable

“Every time I walk through our data centres I see Minkels solutions, it’s everywhere.”
Eric Schwartz,
President Equinix EMEA

us to perform. Lots of our customers are in the technology business - fast moving organisations including those in finance, oil and gas industries, being sophisticated users of technology thus very demanding. It helps when our suppliers can meet those high demands, when they’re able to work with our

enterprise customers helping them implement innovative networking technologies and adopt cloud – whether deploying a private, public or hybrid cloud solution.”

Media articles about data security and breaches are piling up lately. How does Equinix guarantee its customers optimum security?

“Our physical security is extremely effective, with biometric scanning, badge access control and security measures on several layers. The Equinix facilities undergo periodic third party security and compliance audits while feedback is being processed continuously. Besides that, we’re also facilitating customers in need of managed security services through our interconnection platform. Both physically and socially we’re able to connect them to data security providers willing to offer their services.”

What does the global partnership with Minkels mean to Equinix EMEA?

“I spend a lot of time in our data centres across EMEA and every time I walk through a data centre I see Minkels solutions. It’s everywhere and it significantly adds to the energy-efficiency of our data centres. Actually, it’s the result of a very prolific partnership. A lot of energy and effort is being put into the relationship by Minkels. This is recognised and very much appreciated, it makes our relationship a special one that goes beyond just orders and invoices.”

“It’s very important for us to have a relationship instead of transactions with Minkels, being one of our key global suppliers. This makes it easier for us to establish agility, reliability and flexibility in our data centres and adapt to demanding customer needs. The global partnership with Minkels also helps us to create consistency across a variety of countries. Consistency on a global basis naturally drives efficiency and stability while ultimately providing the business value customers are looking for.”

Within three years, do you expect the international retail and wholesale colocation market to be the same or not?

“We are seeing already a greater number of wholesale colocation providers doing more retail as well. The acquisition of Telx by Digital Realty is just one example. Maybe it’s because the US wholesale market is very competitive and companies try to expand the scope of their business. Besides that, in the US, large cloud players such as Google, Apple and Facebook tend to build their own facilities while in Europe they’re more willing to rely on wholesale colocation.”

As Digital Realty is stepping into retail colocation now, does Equinix have any plans when it comes to wholesale?

“We’re not planning to be in new lines of business beyond our core. Of course, you should never say never as the world can change. The acquisition of professional services company, Nimbo last year still fits our core strategy, for example. Nimbo works with large companies who want to implement cloud infrastructures. Although it goes a bit beyond colocation sec, we don’t actually operate these cloud environments and it’s not a prelude to enter the managed services business.”

To conclude, what do you expect the Telety acquisition might bring in terms of synergies?

“I hope it will help to grow our enterprise customer base substantially. They have some very impressive customer names in their portfolio. We think that the Equinix multi-cloud platform and interconnection options might suit those customers too. Two years ago, we launched a Channel Partner Program to expand our global channel and enhance distribution of our colocation and interconnection services to the enterprise market. The Telety acquisition forms an integral part of those enhanced enterprise market ambitions.” ■

**) English - www.minkels.com/magazine/en
French - www.minkels.com/magazine/fr
German - www.minkels.com/magazine/de
Dutch - www.minkels.com/magazine/nl*



Cegeka deploys modular data centre for its European ‘trusted cloud’ with Minkels

Cegeka, a European ICT Group with 3,500 employees and branch offices across Europe, has deployed its new Tier 3+ data centre facility in Geleen, The Netherlands. A green field development, this 640 square metre data centre features a variety of Minkels solutions including Next Generation Cold Corridors, and has a highly flexible, secure and energy efficient design.

The new data centre in Geleen, The Netherlands, has a calculated PUE of 1.14 - an extremely energy efficient figure. Engineers from ICTroom and Minkels sat together on-site to provide an integrated design for a total security solution.

Source: Cegeka

As a growing proportion of organisations in Europe tend to outsource IT infrastructure to the cloud, a company like Cegeka flourishes by providing hybrid cloud services from their highly secured private data centres. The recently established flagship data centre in Geleen, The Netherlands, adds to the existing data centre in Hasselt where Cegeka has its headquarters located. The new data centre has a calculated Power Usage Effectiveness (PUE) of 1.14 - an extremely

energy efficient figure. From these data centres in Hasselt and Geleen, Cegeka’s ‘trusted cloud’ solutions are delivered throughout Europe.

“The Minkels Cold Corridors and racks significantly add to the energy efficiency of the indirect adiabatic cooling system.”
Johan Claes, ICTroom

“When our customers choose to outsource their IT infrastructure to the cloud, safety and the ability to stay in control are extremely important,” says André Knaepen, Chief Executive Officer (CEO) of Cegeka Group. “Cegeka has been responding to customer demand by establishing privately owned and highly secure data centres. Our new data centre in Geleen is another example of this effort, providing organisations in a wide variety of European countries with optimal conditions for safeguarding the availability of their applications.”

TASKFORCE

ICTroom, a pan-European data centre integrator with its headquarters in The

Netherlands, was responsible for implementing this new facility for Cegeka, while Minkels was selected to deliver its aisle containment (Next Generation Cold Corridors®), Varicon® racks and VariconPower® PDUs.

“ICTroom works with all kinds of data centre brands,” says Johan Claes, sales director BeLux, ICTroom. “In this case, a taskforce with people from Cegeka was set up for market comparison and evaluation of all solutions available. This taskforce also visited several data centres for benchmarking purposes. In the end they concluded that Minkels is the best data centre vendor to meet the high set requirements of Cegeka.”

SECURITY LEVEL

The new data centre had to be located near the other flagship data centre in Hasselt, Belgium, for reasons of low-latency interconnection. The establishment of this new facility results in phasing out two remaining data centres in Veenendaal (NL) and Leuven (BE) respectively.

As Cegeka put high requirements on the security level of its hybrid cloud proposition, the company chose to deploy an advanced biometric fingerprint solution for the locking systems of Minkels Varicon racks. Engineers from ICTroom and Minkels sat together on-

site to provide an integrated design for a total security solution. This team of engineers managed to adapt it to the central card access control system and data centre management system, the BMS.

ENERGY EFFICIENCY

To provide ultimate flexibility in standardised data centre design, ICTroom implemented its scalable IMD platform with a modular 750kW power capacity and initial room for 160 racks. While Cegeka is able to start with a capacity of 200 kW, the platform provides a pay-as-you-grow solution with the ability to flexibly adopt new technologies on the go. The modularity of

Minkels’ Next Generation Cold Corridor adds to the enormous flexibility of the overall solution.

“Safety and the ability to stay in control are extremely important when outsourcing IT infrastructure to the cloud.”
André Knaepen, CEO of Cegeka Group

The low PUE figure is being established through the use of indirect adiabatic cooling and energy

efficient components for power supply. “The end result is a state-of-the-art and very energy efficient solution,” adds Mr. Claes. “Although the greater part of energy savings come from the cooling system, the airtightness of Minkels Cold Corridors and high air permeability of their racks significantly add to the energy efficiency of the cooling system in place.”

The data centre in Geleen is provided As-a-service by ICTroom, with an ICTroom employee on-site and remote monitoring from ICTroom’s NOC in Schiphol Airport Business Park in Lijnden, The Netherlands. This way, Cegeka is able to lower its CAPEX investments. ■

Cegeka Group: fast growing

Cegeka is a fast growing ICT services provider delivering solutions throughout Europe in the field of digital transformation, agile development, trusted cloud and 24/7 managed services. With branch offices in Belgium, Germany, France, Italy, The Netherlands, Luxembourg, Austria, Poland, Romania, Slovakia and Czech Republic, Cegeka Group achieved a turnover of 280 million euros in 2014 (a growth of 17% compared to 2013), while in 2015 the turnover increased to about 375 million euros.

About ICTroom

Founded in 2001, ICTroom provides professional services in the field of data centre design, build, exploitation and maintenance. ICTroom combines in-depth data centre expertise with best-of-breed components from leading suppliers. Headquartered in The Netherlands, the company has branch offices in Belgium, UK and Germany.



New European EN 50600 consolidated guidelines

standard brings on energy efficiency

As an endorser of and contributor to the 'EU Code of Conduct for Data Centres,' Minkels is proud to announce that these best practice guidelines for energy

efficient data centre design will become an integral part of the renewed European data centre standard, EN 50600. Additionally, the integration of ISO/IEC DIS 30134-2.2 into EN 50600 will provide extra grip on the use of PUE metrics.

centre construction, EN 50600. The EU Code of Conduct will get the status of a Technical Report within EN 50600.

ENCOURAGING INNOVATION

"The EU Code of Conduct best practices are practically very useful for lowering the energy consumption in data centres and maximising energy savings," says Niek van der Pas, Lead Data Centre Expert at Minkels, who's an international expert on data centre standards and a much sought-after speaker at events. "It can help with the screening of the entire energy chain within a data centre environment, while also providing good preparation for complying

The EU Code of Conduct for Data Centres contains about 150 best practices for implementing energy efficient data centre designs. While Minkels has been contributing to the EU Code of Conduct for many years already, now these best practices on energy efficiency are being incorporated in the more compelling European standard for data

Aisle containment standard

The data centre market may expect an aisle containment related IEC standard to be adopted within three years, according to Minkels' standards and standardisation expert, Niek van der Pas. The new standard will come from the same group of market experts responsible for the 19-inch rack standard, committee IEC SC 48D.

"This IEC committee has 27 member countries involved, of which especially Germany has stressed the importance of having an aisle containment standard implemented," says Mr. Van der Pas, also a participant of the committee. "The use of aisle containment is already quite established in The Netherlands, for example, but not in all European countries yet. As aisle containment allows for 30-40% energy reduction when deployed right, I think it's a good thing to enhance the overall quality of aisle containment deployments across Europe."

The aisle containment standard to be developed will presumably consist of 3 parts including:

- Mechanical construction
- Airtightness
- Security



"The EU Code of Conduct best practices provide good preparation for complying with ISO 14001 and ISO 50001," says Niek van der Pas, Lead Data Centre Expert at Minkels who's an international expert on data centre standards.

with the environmental standard, ISO 14001 and Energy management standard ISO 50001. Besides that, the EU Code of Conduct for Data Centres is a globally recognised quality mark which even underlies the Green Data Centre Standard in Singapore."

"To address the new EN 50600 security model, Minkels offers VariControl-L rack security."

Up until now, the EU Code of Conduct for Data Centres provided a non-committal guiding with best practices for energy efficient data centre deployments. "Embedding the Code of Conduct as a 'Technical Report' within the 50600 framework will make it a more binding agreement while leaving enough room for innovation," adds Mr. Van der Pas. "When participating, one will report its construction details to the EU while the data centre implementation at stake will be reviewed according to these best practices guidelines. As you don't want data centre efficiency miss out through blocking innovation, the EU Code of Conduct is only providing minimum requirements through recommended practices for energy efficient data centre designs."

PUE, KPI

Integrating ISO/IEC DIS 30134-2.2 into EN 50600 last year, as part of the European standard's energy-enablement section, will provide additional grip on the use of Power Usage Effectiveness (PUE) metrics when applying it in practise. The ISO/IEC DIS 30134-2.2 provides a comprehensive definition of a PUE but also adds Key Performance Indicators (KPIs) for monitoring and efficiency improvement.



Minkels VariControl-L Security

The Minkels VariControl-L rack security solutions allow data centre users to address the onion model requirements put forward by the European EN 50600 standard. VariControl-L rack security comes in various types of solutions, with all kinds of technologies and intelligence to monitor, authorise and register access to the IT infrastructure inside the racks. These security solutions can be integrated with almost all Building Management Systems (BMS) and access control systems available on the market. See also: www.minkels.com/VariControl-L_EN.

"It's not so much an instrument for benchmarking and comparison with other data centre facilities," adds Van der Pas. "All KPIs are primarily intended to constantly improve the energy efficiency and environmental health of a specific data centre design. Apart from the PUE, also the renewable energy factor and energy re-use factor are part of these KPIs. This is increasingly important, as our data centre industry and the accompanied energy consumption have the public eye on it – reinforced by Greenpeace publications among others."

DATA CENTRE SECURITY

An important security section recently added to EN 50600 is the 'onion model' (EN 50600 2-5). The renewed security approach combines optimum security with an accessible working environment.

"It is now tailored to everyday practice within data centres," adds Van der Pas. "In the old

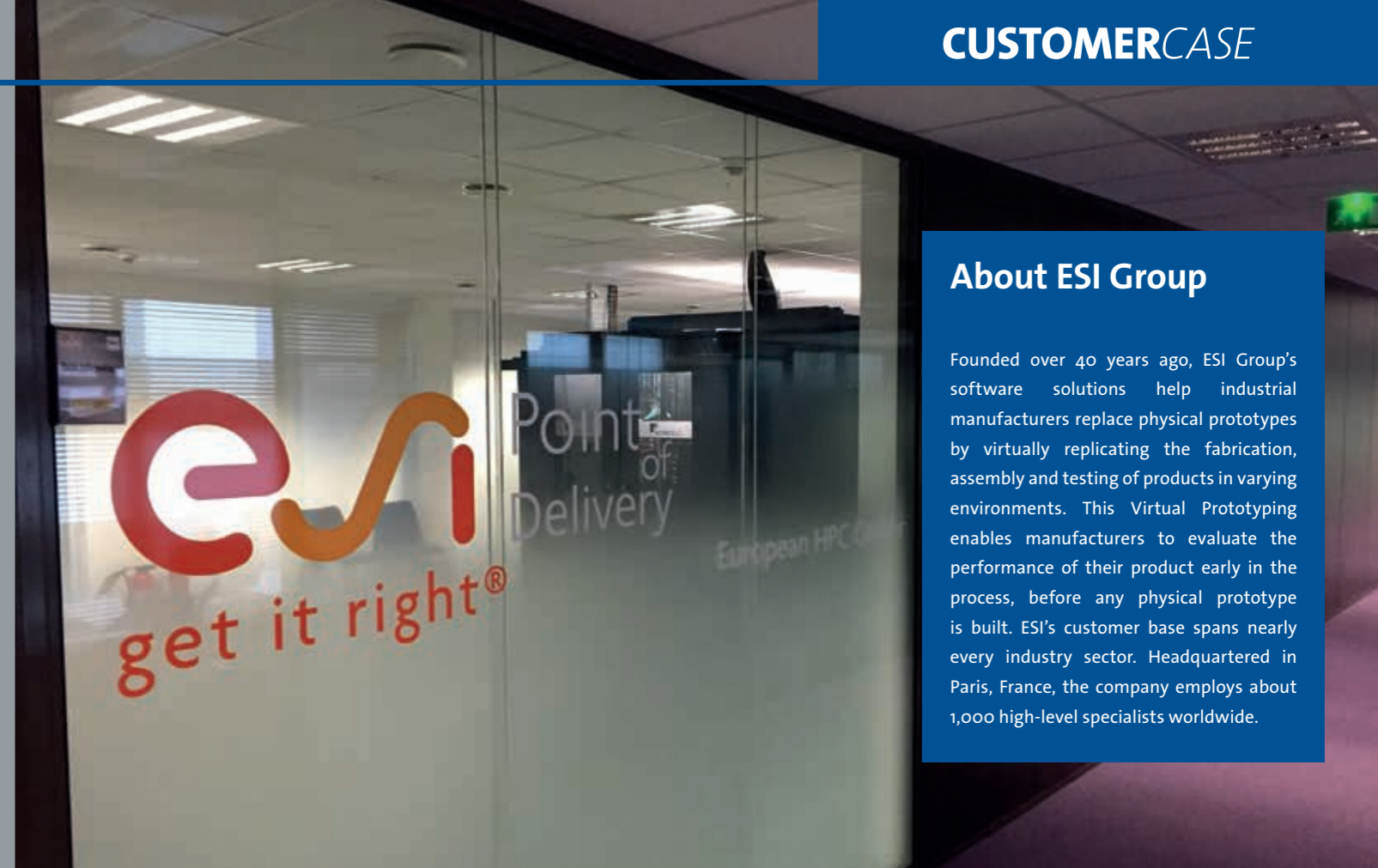
situation, applying data centre security was recommended as follows - the closer you get to the core, the higher the security level should be. The onion model provides a method of establishing a castle wall at the edge of the data centre infrastructure. Inside, engineers and other visitors have quite some freedom. To safeguard the internal security of a premises, all actions and movements are being registered by camera's and sensors."

"An important security section recently added to EN 50600 is the onion model."

To sum up, the renewed European data centre standard EN 50600 is mainly about availability, energy efficiency and safety. Minkels has a broad variety of solutions available to address these topics including VariControl-L. ■

ESI Group deploys HPC Center in Paris with Minkels and Legrand

ESI Group, world-leading provider of Virtual Prototyping software and services for manufacturing industries, opened a brand new High Performance Computing (HPC) Center in Paris last December to support its European HPC projects. Minkels and Legrand were jointly responsible for delivering an end-to-end, integrated data centre infrastructure to meet demanding HPC requirements.



About ESI Group

Founded over 40 years ago, ESI Group's software solutions help industrial manufacturers replace physical prototypes by virtually replicating the fabrication, assembly and testing of products in varying environments. This Virtual Prototyping enables manufacturers to evaluate the performance of their product early in the process, before any physical prototype is built. ESI's customer base spans nearly every industry sector. Headquartered in Paris, France, the company employs about 1,000 high-level specialists worldwide.

Minkels Cold Corridor (aisle containment) integrating:

Minkels France and Legrand, in joint cooperation with Minkels' implementation partner, Cap Ingelec, delivered an integrated, modular and energy efficient HPC data centre to ESI Group. Data centre solutions incorporated include:

- Minkels varicon racks
- Minkels VariCondition H2O cooling
- Legrand S2S UPS
- Legrand main switch board with high power switchgear
- Legrand switchboard to distribute Power to PDU
- Minkels Power distribution unit (PDUs)
- Legrand, Minkels Cable Management
- Minkels LED lighting



The new European HPC Center for ESI Group is located at the Teratec Campus, an ideal data centre location for launching collaborative HPC projects because of its vicinity to Europe's largest HPC Center, the CEA's 'Très Grand Centre de Calcul.' The new HPC Center will act as the company's cloud-based software development and engineering platform serving all ESI offices across Europe. "The ability to build an intelligent HPC data

centre infrastructure able to easily adapt to ESI's evolving needs and computational loads was of decisive importance for selecting Minkels and Legrand," says Vincent Chaillou, COO of ESI Group. "The implementation was successfully completed on time and within budget. It now delivers a scalable, adaptable and reliable infrastructure, ready to anticipate the next big technological challenges, including Big Data evolutions and the Internet of Things."

MINKELS LED LIGHTING

Minkels France and Legrand, in joint cooperation with Minkels' implementation partner for the French market, Cap Ingelec, provided ESI Group with an integrated and fully customised HPC-ready data centre solution. Modularity at construction detail level makes it a highly scalable and easy-to-customise solution. The small-scale data centre, housed in a re-used building has a high-density power capacity of 20kW per rack, while reinforced metal floor slabs under the racks are installed to fit high-density equipment floor loads.

"The new HPC Center will act as ESI Group's cloud-based software development and engineering platform serving all ESI offices across Europe."

This new data centre benefits from the energy saving technologies delivered by Minkels and Legrand, reducing the ecological footprint of

ESI's activities. This suits ESI's corporate vision of developing sustainable and environment friendly products and services. The Minkels Cold Corridor aisle containment solution deployed has an airflow optimisation package included to make sure it's airtight and designed to offer maximum energy efficiency. The Legrand S2S UPS and Minkels VariCondition H2O water-cooling implemented also make an important contribution to this data centre's energy-efficient characteristics.

A nice add-on delivered to ESI, in line with the company's energy efficiency objectives, is the new Minkels LED Lighting solution. The LED tube is attached to the top of the racks and uses only 20 watts of energy while able to illuminate the room inside the Cold Corridors clearly. Each LED tube has a length of 1.20 metres. It's an easy-to-install solution through the use of magnetic systems and a central connection point for electricity supply.

"ESI is now equipped with a European cloud computing Point of Delivery (PoD) to run state-of-the-art calculations," adds Mr. Chaillou. "We're very happy with the results. It will largely contribute to our successes and

engineering studies in the field of Virtual Prototyping." ■



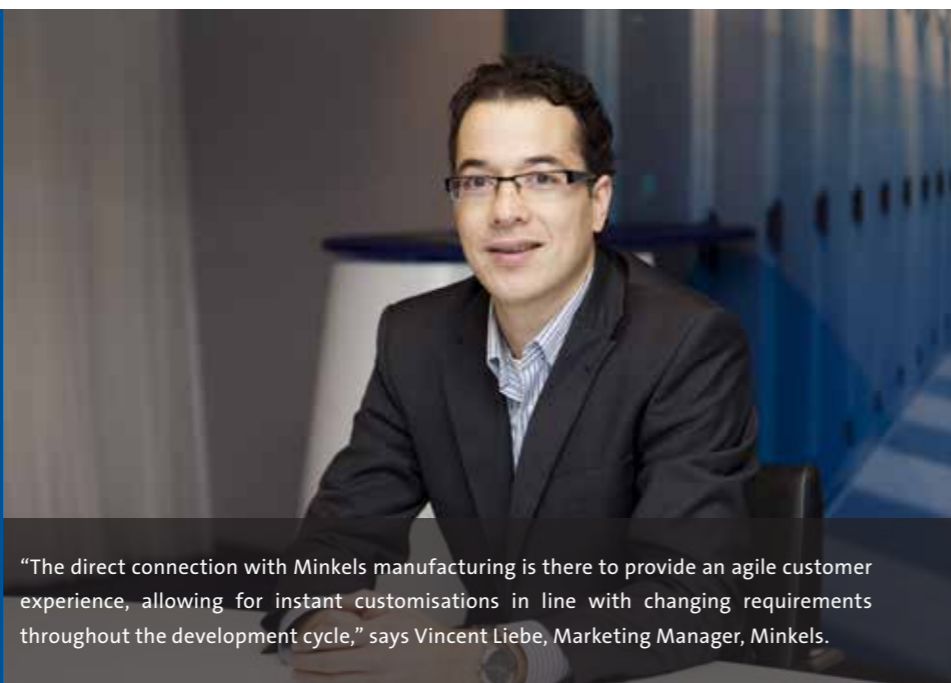
"ESI Group is now equipped with a European cloud computing Point of Delivery to run state-of-the-art calculations," says Vincent Chaillou, COO of ESI Group.

The Minkels mass customisation secrets revealed

Modular data centre components with differing individual specifications, assembled in a wide number of different configurations, brings many advantages to Minkels end-customers and partners. It offers a guaranteed fast and reliable delivery of fully customised data centre solutions. To show how Minkels succeeds in accomplishing these results, here are some of Minkels' mass customisation secrets revealed.

SaaS tool for partners

Until now, Minkels partners had to download the Sofon software to exploit the benefits of using this product configuration management solution. In line with Minkels' continuous efforts to follow customer needs, this partner tool is available in 2016 from the cloud, As-a-Service. By introducing the Sofon SaaS tool, Minkels partners will be assured that their product configuration software is accessible anywhere, from any device, and always up-to-date with appropriate security measures.



"The direct connection with Minkels manufacturing is there to provide an agile customer experience, allowing for instant customisations in line with changing requirements throughout the development cycle," says Vincent Liebe, Marketing Manager, Minkels.



Customer feedback shows that Minkels customers worldwide appreciate the fully customised, integrated solutions with proven technologies and standardised modular components being delivered to them.

"Sales employees globally are able to make a clear and fully customised instant offer during contact with a client."

Minkels' customisation efforts provide globally operating organisations, including commercial data centre operators and enterprises with the advantage of having a standard data centre solution seem like a locally engineered one with good-fitting characteristics. As Minkels is one of the few data centre solution suppliers really able to handle mass customisation needs, one may well ask what's the big secret.

PRODUCT CONFIGURATION

It all starts with modularity. The broad portfolio of differing Minkels products have one thing in common, the modular characteristics being

implemented on product-detail level. These detailed 'building blocks' form the basis for the Minkels mass-customisation success story. Thoroughly tested on integrability, the modular components with standardised features enable Minkels to follow customer needs with a broad variety of different, customised solutions as an end-result.

Intelligent product configuration management is another key-ingredient of Minkels' mass-customisation strategy, a very important one. These efforts are backed by Sofon software, an enterprise-grade product configuration management solution. Minkels has had a strategic partnership for many years with Sofon, the current software solution implemented is the result of a long-standing joint effort. The product configuration tool has evolved over time into the Minkels-optimised solution it is today.

"The vast amount of intelligence incorporated in the Sofon product configuration tool makes sure that the Minkels data centre solutions offered are always manufacturable," says Vincent Liebe, Marketing Manager, Minkels. "No matter where in the world or by whom it's being offered, the Sofon tool guarantees Minkels and

Minkels and Sofon

Business software provider, Sofon (www.sofon.com) has been a strategic partner of Minkels for over fifteen years. As Minkels expanded its business globally over the years, so did Sofon. When Minkels broadened its data centre product portfolio further, Sofon moved along with responding activities.

All innovative features of this product configuration management tool are developed in joint cooperation between Sofon and Minkels. It's an ever-evolving solution. To a large extent, this feature-rich platform is responsible for today's highly personalised Minkels customer experiences globally. This applies to sales, order fulfilment and production as well as assembly and logistics.

its partner organisations that the end-solution implemented is technically well-integrated and always a good fit. It prevents misconfiguration from happening. Potential conflicts between



is a quote generator. It provides customers with an ultimate transparency to their solutions and the prices at which it is delivered. All Minkels component specifications and pricing and delivery conditions are now automatically being generated. Even the total installation time required is being calculated by Sofon, so customers know exactly upfront what time it will take Minkels' services team to successfully complete an implementation.

Liebe: "It means that our sales employees globally are able to make a clear and instant offer during their contacts with clients, while customers benefit from a unified approach to solution details, pricing and delivery. It also ensures that Minkels and its partners are always able to build and implement the sold solution. The incorporated intelligence in Sofon takes care of that."

MINKELS PARTNER CHANNEL

Sofon represents a strategic and integral part of Minkels' go-to-market strategy, but so does the Minkels partner channel. Therefore, key partners are granted access to the Sofon tool. By utilising the Sofon solution, partners are enabled to easily assemble certain solutions and create bid proposals to their customers. Partners who are operating as an extension of the Minkels' services team, such as installation firms for cooling systems and power supplies, are receiving assignment notifications through the system.

"This close involvement of our global partner channel is very important for an overall feel good and excellent delivery experience for Minkels end-customers, wherever in the world they are located," adds Liebe. "Of course partner channels may vary from country to country, with other types of service deliver and/or pricing models. That's why Sofon has a built-in feature for adjusting partner integration details and adapting to local data centre services needs. All in all the Sofon platform helps us deliver on our promises and to even exceed customer expectations." ■

Intelligent product configuration management is a key-ingredient of Minkels' mass-customisation strategy. The vast amount of intelligence incorporated in the Sofon product configuration tool makes sure that the Minkels data centre solutions offered are always manufacturable.

data centre components are being precluded in advance of configuration."

development cycle. The expected effects are directly reflected in the positive customer feedback we get."

PRICE TRANSPARENCY

"Tight integration between Sofon and the ERP and manufacturing systems assure customers a rapid and reliable delivery of ordered solutions," adds Liebe. "As order fulfillment, manufacturing and assembly processes are all interconnected, it may well give clients from anywhere in the world the feeling that they're continuously working with Minkels' production plants directly. The direct connection with Minkels manufacturing is there to provide an agile customer experience, allowing for instant customisations in line with changing requirements throughout the

"Tight integration between Sofon, ERP and manufacturing systems assure customers a rapid and reliable delivery of ordered solutions."

A nice feature that was added last year to the Minkels/Sofon product configuration platform



New: Minkels Drop Away Panels

The Drop Away Panels are an addition to the Minkels roof portfolio. One of the unique features of these panels is that they soften and gently drop down when the temperature rises above 65 °C. They will make way for the water sprinklers or water mist systems.

BENEFITS

- Lightweight material: the panels do not cause any danger to people and equipment.
- The panels are suitable for Minkels Next Generation & Free Standing Cold Corridor, and can also be used for retrofit.
- No height restriction: suitable for 2000, 2200 & 2400 mm high corridors.
- Drop Away Panels are standard available in 1200 & 1800 mm width.
- Extra safety-feature: the grounding of the metal framework construction.
- The panels are FM Approved by Approval Standard 4651.

More information? info@minkels.com

www.minkels.com

Security and safety solutions

from Minkels to address market demand

Global demand for cloud security solutions is rapidly on the rise, according to Forrester. Demand for data centre security solutions is amplified by an increased focus on security topics within the European EN 50600 data centre standard. To address customer security and safety needs, Minkels has recently expanded its data centre solutions portfolio. As always, Minkels has kept energy efficiency and flexibility needs in mind.

This trend is impacting global data centre security investments, which is confirmed by Forrester's market report, 'Sizing the cloud security market.' Forrester forecasts that global cloud security investments will increase from \$282 million in 2014 to as much as 2 billion by 2020.

Minkels has been responding to market demand with new data centre solutions focused on security and safety within data centre environments. Recent additions to this already extensive Minkels portfolio include:

- Drop Away Panels
- LED Tubes / lighting for racks and corridors

Other security and safety focused data centre solutions from Minkels include:

- VariControl-L Rack Security
- Busbar systems & smart tap-off boxes

NEW - DROP AWAY PANELS

With initial customer requests originating from the UK, Minkels has developed the new Drop Away Panels as a fire safety extension to its Free Standing Cold Corridor and Next Generation Cold Corridor solutions. Drop Away Panels allow for enhanced safety and a mitigation of risk while safeguarding airtightness functionality of the aisle containment system.

"For example, for some customers only FM-approved roof assemblies may qualify for an FM Global insurance contract. In order to meet these needs, we added the Drop Away Panels to the Minkels roof portfolio," says Bas Jacobs, Product Manager, Minkels.

Minkels Drop Away Panels are suitable for all Cold Corridor heights and aisle width dimensions. When temperature gets above 65 degrees, the plastic frames of the Drop Away Panels automatically soften and the lightweight panels will drop down to make way for the water sprinklers or water mist systems. An extra safety-feature, not seen elsewhere in the market yet, is the grounding of the metal framework



Minkels Drop Away Panels

construction. In case an electric cable falls on top of the aisle containment construction, current will be conducted away to earth.

NEW - LED TUBES

To address illumination issues in general while achieving a safety enhancing and healthy working environment, Minkels is now offering energy efficient and 19-inch optimised LED Tubes for high visibility inside data centre environments. The new LED product comes in two variants, suitable for a variety of rack formats as well as Cold Corridors.

Inside a 19-inch rack, the LED Tube will be pre-mounted in the top U position, or can be placed on the inside of the roof. Within the mounting positions, one is able to rotate the LED Tube for even more targeted lighting at for example the IT equipment. The LED Tube is available with on/off switch or can be activated by a door contact.

The high luminosity and energy efficiency of Minkels LED Tubes are also very useful when applied in the aisles of the Free Standing or Next Generation Cold Corridors. Especially when using black coloured racks and Cold Corridors, these LED Tubes provide high visibility thus having a safety advantage. Minkels LED Tubes allow for an easy expansion of the tubes through the use of extension cables, which are covered by small

solutions



Minkels has re-designed the VariControl-L system and therefore integrated all components into a 19" housing.

caps to create an integrated look-and-feel. The LED Tubes come with a motion sensor for turning off all the lights automatically when leaving the Cold Corridor.

KEY FEATURES OF THE NEW MINKELS LED TUBES INCLUDE:

- Energy efficiency – LEDs (Light Emitting Diodes) are small, solid light bulbs featuring extremely energy efficient and long lasting characteristics.
- Safety guarantee – The official IEC 62471:2006 certification ensures that this product meets the highest safety requirements when it comes to eye protection.

■ High-power illumination - 335 LUX: This allows for optimal working conditions according to standard EN12464-1.

■ Easy-install – Mounting a LED Tube is an easy task through the use of magnet systems.

■ Flexibility – Suitable for a variety of rack formats and Cold Corridor layouts, with rotating options within mounting positions.

■ Integrated lighting solution - LED-aligned recesses, connecting cables and small caps for hiding these cables provide an integrated look-and-feel.

VARICONTROL-L RACK SECURITY

"Growing demand for rack security solutions is fuelled by the recently adopted onion model within the European data centre standard, EN 50600. To address customer demand, Minkels has a comprehensive portfolio of rack security solutions available. These rack security solutions allow for seamless integration with Building Management Systems (BMS) and access control management systems," says Jules Sommer, Senior Product Manager, Minkels. The rack security products from Minkels include:

- VariControl-L Basic – Electromechanical swivel handles with control management through simple-to-use relay port.
- VariControl-L HID – Full-featured access control system on rack level with swivel handles, software and HID-cards included.

VariControl-L Integration box

Recently, Minkels has re-designed the VariControl-L system and therefore integrated all components into a 19" housing. This housing will improve protection of the components and guarantee a clean install. Moreover, the system now also supports a redundant power feed, so in case of a power failure, access to the rack is still secured.

Communication and authorisation takes place through the use of RFID technology and Ethernet connectivity.

■ VariControl-L HID Direct and HID-485 – The first type mentioned has a direct Ethernet connection while HID-485 is designed to allow locks and devices to communicate through a serial RS-485 bus and a Gateway with Ethernet connection.

BUSBAR SYSTEMS & SMART TAP-OFF BOXES

As with the rest of the Minkels portfolio, Minkels Busbar Systems are highly modular thus flexible solutions providing users with a pay-as-you-grow busbar system anticipating future power scenarios. The additional use of Smart Tap-Off Boxes not only enhances the flexibility and scalability of the busbar system but also contributes to the safety of the solution.

Smart Tap-Off Boxes are being positioned on top of the racks. The modular characteristics and close alignment with common data centre width sizes allow for exact positioning of tap-off boxes right above the racks, resulting in easy setups and also safety by reducing human error.

Minkels has been listening carefully to global customer requirements. The expanded and improved Minkels portfolio focused on security and safety is reflecting these efforts. ■



"To meet customer insurance needs, we added the Drop Away Panels to the Minkels roof portfolio," says Bas Jacobs, Product Manager, Minkels.



"Minkels rack security solutions allow for seamless integration with Building Management Systems (BMS) and Access Control Management Systems," says Jules Sommer, Senior Product Manager, Minkels.

Minkels unveils ROI Calculation Tool

for well-founded Cold Corridor investment from Minkels to address market demand

As part of its knowledge-sharing efforts, Minkels has released a new white paper on ROI calculation for aisle containment investments. In this white paper, Minkels' Lead Data Centre Expert, Niek van der Pas, shares his vision on the parameters determining an aisle containment cost and revenue evaluation - helping customers take well-founded investment decisions with regards to Minkels Cold Corridors.

The use of aisle containment infrastructure provides an estimated energy saving of 30-40%. Although the associated cost savings are significant, the exact savings and ROI will depend on a variety of data centre parameters and setup details. To help customers assess their very own situation, Minkels has produced a white paper featuring their recently developed ROI Calculation Tool for aisle containment investments. The new white paper, 'ROI Calculation Tool – Evaluate the return on investment (ROI) of aisle containment,' is available on request through the Minkels website: www.minkels.com/whitepaper.

Next to some generally interesting information on tax incentives to foster investments in energy efficient data centre infrastructure, this white paper contains a description of all parameters determining the ROI of an aisle containment investment. Minkels' Lead Data Centre Expert, Niek van der Pas, elaborates on these parameters, providing customers with professional guidance on their individual ROI calculation. These parameters include:

- Aisle containment costs
- Expected rack load
- Cooling system + fan speeds
- Climate conditions
- Airflow optimisation
- Delta T value
- Server set point + inlet temperatures

In the Minkels ROI Calculation Tool, great emphasis is placed on the cooling segment. The cooling segment of the Calculation Tool takes into account all details of the main energy users in the data centre cooling chain, being the fans of the outside dry cooler, the pump feeding the dry cooler, the compressor and the indoor HVAC fans. Also the type of cooling is important for determining the ROI.

Although the use of free cooling combined with aisle containment infrastructure probably provides the most significant positive energy saving results, other types of cooling systems may be implemented in a certain situation. The ROI Calculation Tool takes this into account while also providing the opportunity to enter a variety of mode settings for a free cooling system in use. Airflow optimisation figures, Delta T values, server set points and inlet temperatures will make the ROI data insight needed complete. Exact savings and ROI for an aisle containment investment also depend on the climate conditions applicable.

As some very seasoned data centre expertise is needed for a proper use of the Minkels ROI Calculation Tool, this ROI instrument is only available in combination with Minkels' engineering consultancy. To learn more about the options, please send an email to: info@minkels.com.



Download white paper

The white paper 'ROI Calculation Tool – Evaluate the return on investment (ROI) of aisle containment,' written by Minkels member Niek van der Pas, is available on request:

www.minkels.com/whitepaper

CASE STUDY ATOS

To illustrate how a targeted analysis of the appropriate parameters can lead to a clearly substantiated ROI Calculation, Minkels has included a customer case study of Atos validating the usefulness of this tool. The case study includes a test set-up in one of Atos' main data centres in The Netherlands. In this data centre, Atos has deployed (part of) its globally available Canopy Cloud among other IT infrastructure. Both Minkels Next Generation Cold Corridors as well as Minkels Free Standing Cold Corridors are utilised for housing the Atos IT infrastructure.

“With Minkels Cold Corridors, Atos succeeded in lowering their PUE from 1.4 to 1,21!”

As this test set-up was conducted in an already energy efficient data centre environment, with highly energy efficient cooling systems and power supplies already being deployed, it shows

that Minkels' aisle containment solutions are also a perfect fit for 'the last mile' within data centre energy efficiency efforts. In this aisle containment set-up example, Atos succeeded in lowering their Power Usage Effectiveness (PUE)

from 1.4 to a figure as low as 1,21. These PUE improvements can be attributed entirely to the implementation of Minkels Cold Corridors, with only some additional adjustments to the set points of the cooling system. ■



About the author, Niek van der Pas

The editor of this white paper, Niek van der Pas, is one of the contributors to the EU Code of Conduct for Data Centres – a Europe-wide best practices guide on energy efficient data centre development. Since its inception, Minkels has been an endorser to this scheme while contributing to its practice guide. Recently, further effort has been put in the transition of this guide into a status-enhancing Technical Report (TR) as part of the European standardisation series, EN 50600. Niek van der Pas is also a contributor to this new Technical Report (TR).



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