

SUSTAINABLE

Making a connected
world more efficient

DigiPlex — Oslo, Norway

Learn how this leading Nordic data center deploys
the Galaxy VX UPS to meet its sustainability goals.

se.com/colo

Life Is On

Schneider
Electric



EcoStruxure™ for Data Centers offers Connected Products, Edge Control, and Apps, Analytics, and Services from Schneider Electric's IoT-enabled architecture. Together, these innovations help data centers thrive at every level.

An unexpected source of power consumption

Checking your account balance on your app. Watching the latest viral video. Uploading a selfie to social media. We take these actions for granted, but there's a lot going on behind the scenes. Very little of what we do on our devices actually happens in them; data centers are the nerve centers of our connected world.

In a society that grows more connected every day, data centers are sources of enormous power consumption. This presents a formidable challenge for colocation providers like DigiPlex in Norway, which seeks to grow in a competitive business environment while being a responsible corporate citizen.

"Sharing a short video seems like it doesn't do anything to the environment. But when a popular video gets shared over a year it could easily use tens to hundreds of terawatt-hours," explained Pål Rune Viken, Site Manager at DigiPlex's Oslo Ulven facility.

Sustainable data centers will have a huge strategic advantage when consumers realize the environmental impact of growing connectivity. DigiPlex wants to be in a competitive position when that happens.

"The key change will come when the end users start to explore how their digital usage affects the environment around them," said Viken. "I don't think they are fully aware yet, but they will be, and that will drive a revolution."

Operating green data centers goes beyond idealism. DigiPlex views it as a crucial to business growth and survival. "We will simply not produce enough power to continue the digital revolution unless we find better ways to utilize all the data from our systems, and better ways to operate our data centers," cautioned Viken. "Ten years from now, if you don't operate a completely renewable, sustainable data center, you won't be here."

DigiPlex (Ulven colocation facility) at a glance:

- Norway's most connected site, with hundreds of customers.
- Over 10 megawatts capacity.
- 5,000 square meters of white space.
- Serves high-profile customers.
- Powered by 100% renewable energy sources.

Goal

DigiPlex is a leading data center operator in the Nordics, dedicated to responsible, sustainable growth. Innovative products that push efficiency benchmarks were needed in order to achieve ambitious goals in a power-intensive industry.

Story

Schneider provides the connected products and expertise for DigiPlex to maximize efficiency at its Oslo Ulven data center. Energy efficiency improved by 4%, reducing the data center's overall OpEx.

Solutions

Connected products like Galaxy™ VX UPS, Uniflair™ chillers, and Masterpact™ MTZ breakers maximize efficiency, helping DigiPlex achieve its ambitious vision.

Results

- Modular UPS provides flexibility for future growth.
- 98% efficient EConversion™ mode reduces energy consumption.
- 4% improvement in overall energy efficiency.

Considering what's at stake, how much power data centers consume, and how rapidly the industry is growing, this seems like a monumental task. DigiPlex turned to a trusted partner to meet this crucial challenge.

Zero tolerance for downtime

Data centers are expected to deliver 100% uptime. There isn't any tolerance for unexpected downtime. "We try to make everything as boring as possible in everyday life — everything should happen exactly as we plan it," insisted Viken.

As the world becomes more dependent on connectivity, unexpected downtime can create serious problems for a company. For example, if doctors can't access digital medical records in an emergency, the ramifications could be disastrous.

"It'll be hugely expensive to just try to restore your reputation," Viken said of companies that are stricken by unexpected downtime. "Some companies will probably never come back from the damage of downtime — that's one of the biggest risks in the digital age."

Compatible partners

Choosing partners who align with its corporate goals and ideals is important to DigiPlex. "We need to continue to innovate, we need to continue to find partners with the same set of values as we do, and we need to continue delivering on promises to our stakeholders," explained Viken.

"Schneider is a company with the same values as DigiPlex," said Viken. "Higher focus on customer service, higher focus on being sustainable, higher focus on finding solutions that are innovative — to actually help the whole society to move in a more sustainable direction."

In Schneider, DigiPlex found a willing partner to push the boundaries of efficiency. The two companies work together to create sustainable data center solutions.

"Schneider equipment has never caused a loss of client services," said Viken.

"We're investing to be at the forefront, being innovative, being sustainable — we have



done that for nearly 20 years," explained Viken. "This isn't just hype for us, it's something we live and breathe. And being at the forefront, promoting these things, gives us an impact on the whole business we are in. That's exciting."

Building a greener data center

Maximizing efficiency is key for power-hungry environments like data centers. The right technology drives efficiency and provides digital opportunities to enhance progress in a globally responsible manner.

"Connected products — they're the only way to be very efficient," insisted Viken.

That's where EcoStruxure comes into the picture. "I like the way Schneider makes the EcoStruxure interface open, that makes it flexible for the future," said Viken. "We want to make sure we're future-ready. It's not enough to just do what everybody else does, so we're constantly trying to find a new way — a better way."

EcoStruxure-connected products like the Galaxy VX UPS have delivered real results for DigiPlex. Its innovative EConversion mode delivers 2% greater efficiency than the closest competitor, and the modular design gives DigiPlex the flexibility to adapt its infrastructure to accommodate future needs.

EConversion "gives us Class 1 performance but still 98% efficiency, so it helps us lower the energy consumption," said Viken. "It's

"Ten years from now, if you don't operate a completely renewable, sustainable data center, you won't be here."

— Pål Rune Viken,
Site Manager, DigiPlex

extremely important to the business case that you lower the overall energy usage.”

The Galaxy VX UPS features long-lasting lithium-ion batteries that result in less waste than traditional lead-acid batteries that need to be replaced more frequently, and also have a smaller footprint. This space-saving feature enabled DigiPlex to renovate an existing facility instead of absorbing the cost of building a new, larger one. “The lithium ion batteries gave us the opportunity to get a lot more into that same smaller footprint, where we’re limited on space,” said Viken.

The Nordic region is committed to capitalize on its natural resources to generate an abundance of clean energy from sources like hydroelectricity and wind power. “Recently, many of the biggest players have been moving to the Nordics — it’s a very attractive part of the globe to put data centers,” said Viken.

DigiPlex takes its Nordic heritage as an inspiration to grow business in a responsible and sustainable manner, proving that nature and technology don’t have to be mutually exclusive.

“People in the Nordics are used to living very close to nature,” Viken explained. “It’s normal for us to reuse and recycle, and to live in cooperation with nature rather than exploiting it. It feels very natural for us to



Powered by
100%
renewable energy sources

“Digitization is the key to going into the future in a sustainable way.”

— Pål Rune Viken,
Site Manager, DigiPlex

go that route, and that gives us an advantage as a region.”

We embrace new technology very open-heartedly, making the Nordics a very digitally advanced part of the world,” said Viken.

EcoStruxure Data Center
Innovation At Every Level



EcoStruxure
Architecture

It's no surprise that a company that takes on big challenges — successfully — has gained wide acclaim for its excellence.

- Renewable Energy Technology of the Year, The Energy Awards 2018
- Best Data Centre Energy Solution Award, 2018 Datacloud Awards
- Data Center Operations Team of the Year – Colo+Cloud, DCD Awards 2017

The sustainable future

Equipped with innovative efficiency solutions, DigiPlex is positioned to deliver on its pledge to drive environmentally friendly data center practices. A promising project involves repurposing waste heat from the data center to heat nearby apartments.

“We estimate that we can heat somewhere around five to ten thousand homes,” said Viken. “Whenever people are sitting in their flats, streaming a video, checking their email, or doing other online services, that heat from the data center is actually reused and pumped back into the district heating system.”

DigiPlex is dedicated to pushing the boundaries of innovation when it comes to operating better data centers. The company realizes the importance of this goal — for sustainability concerns as well as motivations for business growth.

“We're a small company, but we can share our ideas with big companies that see the world in the same way,” said Viken. “The only way to get big companies to help us drive the ideas is if you share values with us, and Schneider Electric does. That's a great way into the future.”



“One of the biggest risks in the digital age is downtime.”

— Pål Rune Viken, Site Manager, DigiPlex

EcoStruxure™

Innovation At Every Level

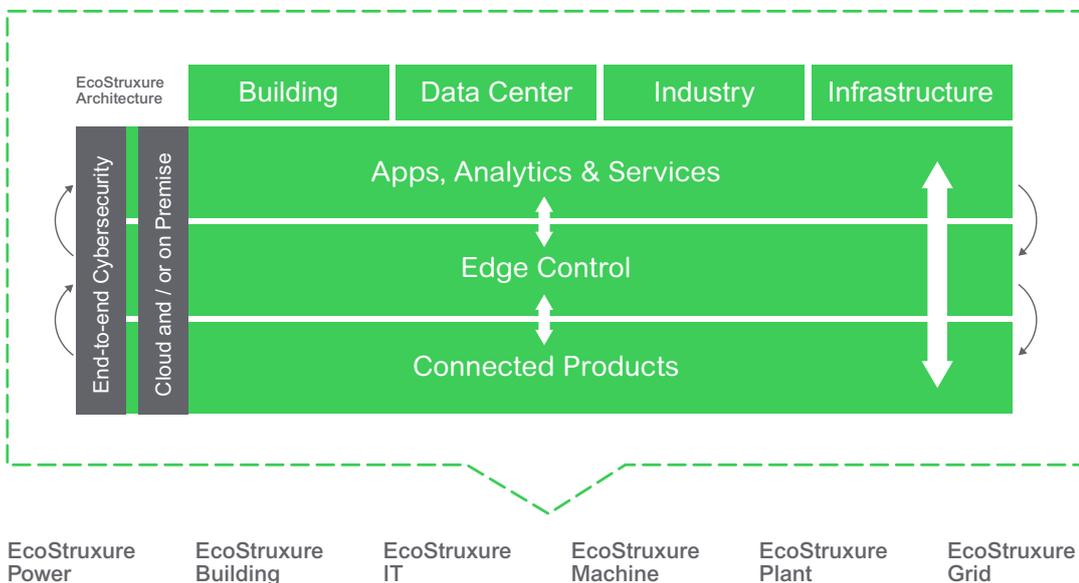
IoT-enabled solutions that drive operational and energy efficiency

EcoStruxure is Schneider Electric's open, interoperable, IoT-enabled system architecture and platform.

EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers.

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics, and Services. EcoStruxure has been deployed in 480,000+ sites, with the support of 20,000+ system integrators and developers, connecting over 1.6 million assets under management through 40+ digital services.

One EcoStruxure architecture, serving 4 end markets with 6 domains of expertise



Connected Products

The Internet of Things starts with the best things. Our IoT-enabled best-in-class connected products include breakers, drives, UPSs, relays, sensors, and more. Devices with embedded intelligence drive better decision-making throughout operations.

Edge Control

Mission-critical scenarios can be unpredictable, so control of devices at the edge of the IoT network is a must. This essential capability provides real-time solutions that enable local control at the edge, protecting safety and uptime.

Apps, Analytics, and Services

Interoperability is imperative to supporting the diverse hardware and systems in building, data center, industry, and grid environments. EcoStruxure enables a breadth of agnostic Applications, Analytics, and Services for seamless enterprise integration.

Find out more about EcoStruxure

se.com/ecostruxure

Learn More



Solutions for Colocation Providers



Software and Services



Galaxy VX UPS



MasterPact™ MTZ



Uniflair Chillers



Stay Up-to-Date

Schneider Electric

Boston ONE Campus
800 Federal Street
Andover, MA 01810 USA
Phone: + 1 978 794 0800

www.se.com

August 2019

©2019 Schneider Electric. All Rights Reserved. Life Is On Schneider Electric is a trademark and the property of Schneider Electric SE, its subsidiaries and affiliated companies. All other trademarks are the property of their respective owners.

998-20539894_GMA-US

Life Is On

