



Draka

A Brand of Prysmian Group

DIGITAL BUILDING SOLUTIONS



Smart. Transformative. Intuitive.

WELCOME TO



PRYSMIAN GROUP'S DIGITAL BUILDING SOLUTIONS

Prysmian Group's Digital Building Solutions; OpenArch, is offering a portfolio of smart building technologies & applications to create intuitive and secure facilities that help enhance health, safety and efficiencies.

It starts with choosing an intelligent infrastructure and the best technology to ensure the building performs optimally over its entire life-cycle.

High performance buildings are realized through an integrated approach towards achieving energy efficiency, limited environmental impact and lowest life-cycle costs. Leveraging on an intelligent infrastructure, digital applications can be implemented to turn data into actionable insights and address specific business challenges - from energy conservation to space and asset optimization.

With technology always evolving, it is essential that the platforms, data and infrastructure being used today are designed with future possibilities in mind. Future-proofing buildings by integrating an open architecture with interoperable IoT platforms helps the easy adaptation to technological, social, environmental, regulatory and economic changes throughout their lifetime.

The smart building solutions offered by OpenArch combined with Prysmian Group's industry-leading cabling collaborates with an ecosystem of partners to deliver future-proof end-to-end facility solutions through Power Over Ethernet (PoE). With limitless potential applications, office buildings, healthcare facilities, commercial & industrial buildings and smart homes are served.



Health and wellness



Sustainable operations



Energy cost savings



Better experiences

SOLUTION PORTFOLIO OVERVIEW

MANAGEMENT LAYER



Control Software

INFRASTRUCTURE



Power Over Ethernet
Cable technology



Connectivity

FIELD LAYER



PoE Lighting



PoE Emergency
Lighting



IoT Devices

PoE LIGHTING

For buildings of all sizes, PoE Lighting can be used as a flexible and sustainable solution. Compared to conventional lighting systems, this smart concept offers easier installation, maintenance and operation, as well as reduced energy consumption and CO₂ emissions. The interaction of sensors, LED luminaires and an intelligent control system offers users an attractive and optimised solution.

PoE EMERGENCY LIGHTING

We encounter independent power sourced or mains-independent emergency lighting every day in ceilings, on walls or above doors in various locations including public buildings, factories or commercial offices. PoE Emergency Lighting is highly cost effective to install than traditional solutions and offers fully auditable maintenance and compliance data. In emergency situations when the power fails, PoE Emergency Lighting provides sufficient orientation for building evacuation and escape routes are reliably marked.

IoT DEVICES

Increasing the number of data points within IoT-enabled buildings (BIoT) enhances the variety and volume of information that can be collected and communicated by leveraging on the number of sensors and components.

With that, a data fabric is generated everywhere in the environment, where an ecosystem of sensory components in the building become part of the base infrastructure. However unified the whole may appear, the parts each component play are discrete and necessary. Considering the possibilities and flexibility of a digital building with a PoE infrastructure, the more connected a building's systems are, the greater the variety, volume, and velocity of data generation, and then subsequently there is greater potential for intelligent decision-making.

VERTICAL SEGMENTS



Office



Health Care



Hospitality



Industrial & Warehouse Buildings



Education



Smart Home



Control Software

OpenArch enables smart buildings with sophisticated control software and creates interoperable solutions that connect building services. Interoperable solutions turn buildings into intelligent spaces, integrating with multiple building protocols allowing connectivity with Building Management Systems (BMS) and IoT devices.

The vendor-agnostic software allows for compatibility with many types of products control, system integration and insight. It also enables cloud connectivity and interoperability with other devices and systems.

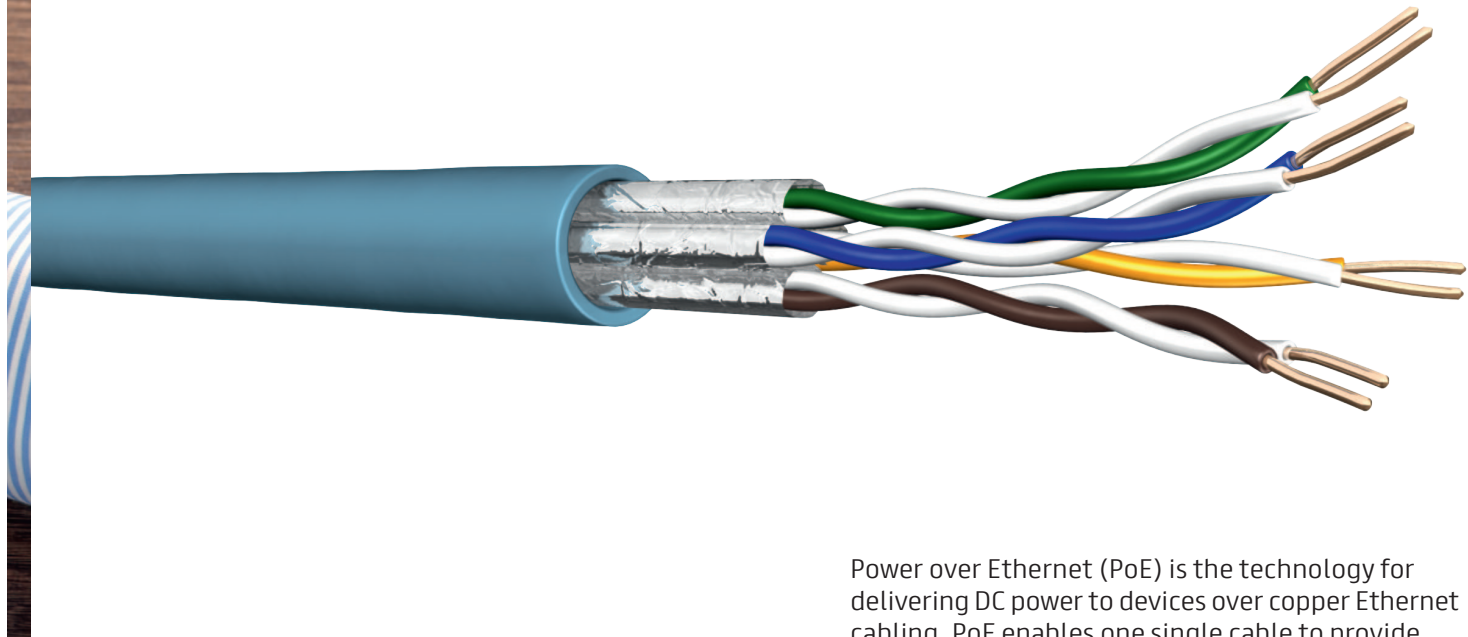
The solution is very flexible so it can be applied to wider smart building solutions. Various systems and devices can be connected within buildings, collecting and aggregating data and creating custom dashboards, allowing data to be utilised in real-time either in the building or via the cloud.

The system improves safety and security, detects its own maintenance, analyses occupancy and space, and delivers advanced health and comfort for its occupants. The software is IP based and is available as both an on and off-premise solution.

The advanced analytics platform analyzes the data to deliver actionable insights. It is user-friendly, with easy-to-use dashboards and common-sense commands to link a wide range of systems and devices in one unifying platform. It also retains compatibility with other protocols such as BACNet, MODBUS, KNX and LONWorks. By uniting devices with a standard and the structured cable backbone of Power over Ethernet (PoE) network, OpenArch provides superior bandwidth, reliability, security, and scalability.

POWERING SMART BUILDINGS WITH POWER OVER ETHERNET (PoE)

A cost-effective end-to-end technology



Power over Ethernet (PoE) is the technology for delivering DC power to devices over copper Ethernet cabling. PoE enables one single cable to provide both electrical power and data connection to many different devices along twisted-pair ethernet cables. It makes it possible to supply power to devices such as access points, IP cameras, VoIP phones, LED lighting, Emergency Lighting, IoT Gateways and Wellbeing Sensors.

Power over Ethernet is the backbone technology and ideal infrastructure to enable digital building solutions to come to life. An intelligent infrastructure facilitates data collection and analysis, enabling digital services and applications to turn data into actionable insights.

PoE is brand agnostic and ready for use in all kinds of industries and applications e.g. commercial, industrial, retail and residential. PoE infrastructures communicate in a common language. Therefore, different types of systems and devices can be easily connected, configured, and integrated. Open protocols are easier to work with in terms of master system integration and scalability in smart buildings.

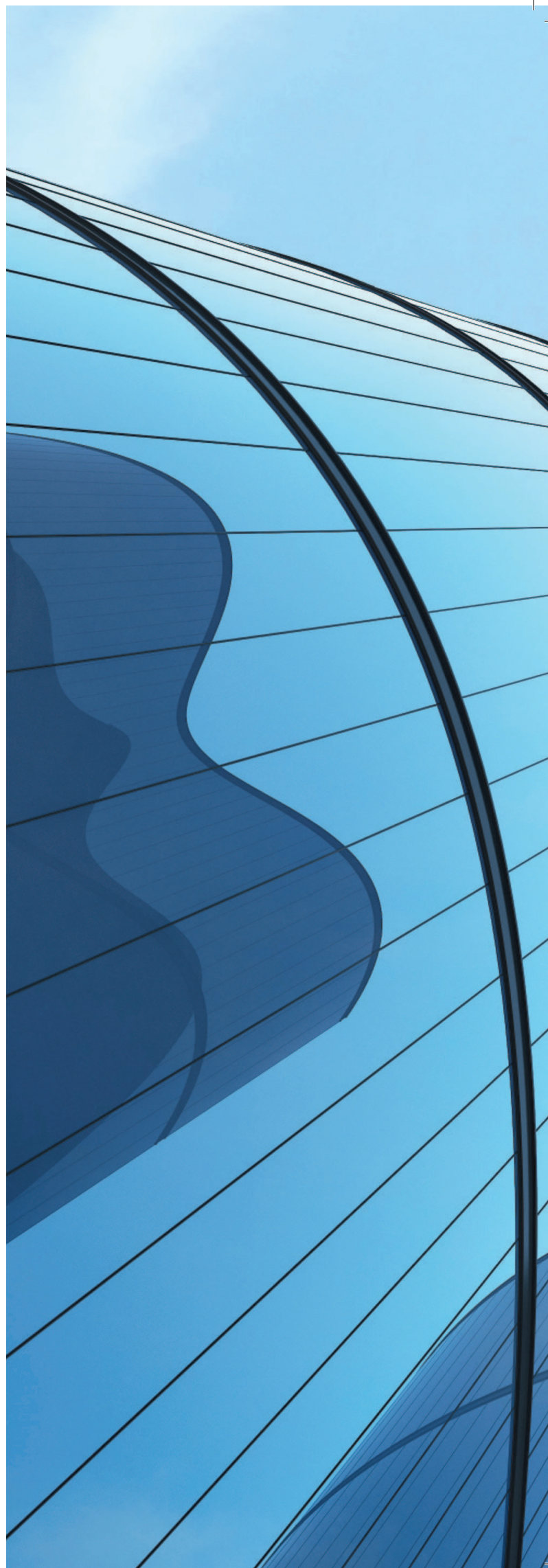
PoE standards provide backward compatibility with all previous standards. The installation of the network is highly standardized and verifiable in accordance with application and installation requirements. Since both power and communication are in one cable, there is less congestion in the installation space because of fewer cables required.

INTELLIGENT BUILDING MANAGEMENT APPLICATIONS SUPPORTED BY PoE

PoE technology is capable of supporting all kinds of processes and being the backbone of complete building services. The range of applications is broad, for example predictive heating-ventilation-air conditioning, personalised lighting control, indoor way-finding, asset tracking to identify hardware and support areas, centrally managed security, dynamic personalised signage, real-time conference room availability and flexible workspace allocation. High reliability, ease of use and maintenance fulfill PoE by centralising the infrastructure.

CONVERGENCE

Increasing convergence of classic Information Technology and Operational Technology, is brought about by digitalization and combined networks. The convergence of IT and OT via PoE enables power supply, communication, and data transmission via a single cable network. The convergence enables central management of all building systems and thus efficient operational management. The number of devices and services integrated into network infrastructures continues to increase. This is accompanied by the demand for standardization of the cabling infrastructure. The demand for intelligently networked buildings based on PoE has increased continuously over the last few years - both in the area of commercial and industrial end users.



EASE OF INSTALLATION & MAINTENANCE

PoE-compatible devices can be connected to the network without much effort and are self-configuring. They are easy to implement via plug-and-play and since only low voltage is used, no electricians are required for both implementation and maintenance. The installation of the network is highly standardized and verifiable according to the applicable installation standards.

GENERAL BENEFITS OF PoE INFRASTRUCTURES

- Cost-effective
- Ease of Installation
- Operational flexibility
- Material ongoing energy savings
- Enhanced health and wellness for employees
- Sustainable future proofing for the OT environment



DECARBONIZING BUILDINGS FOR A GREENER FUTURE

Sustainability & Energy Efficiency

Buildings are responsible for about 36% of global energy consumption and almost 40% of global greenhouse gas emissions over their lifecycle. Decarbonization includes energy efficiency in both existing buildings and new construction.

PoE via structured cabling systems with centralized management makes a valuable contribution to improving the energy efficiency of buildings, thereby reducing CO₂ emissions.

Energy management includes planning and operation of energy production and energy consumption units as well as storage and energy distribution. The objectives are resource conservation, climate protection and cost savings, while the users have permanent access to the energy they need.

Through a comprehensive portfolio of innovative digital building products and solutions, emissions can be reduced to optimize energy consumption and control supply in a way that conserves resources.



CREATING ENVIRONMENTS THAT CARE

Safety and Wellbeing

Environmental conditions such as temperature, lighting conditions, flicker and air quality influence performance, productivity and ultimately the health of the occupants inside buildings. PoE can be used to set up and operate a sensor network that

ensures optimal working conditions, for example, by regulating lighting, ventilation and air-conditioning technology through environmental monitoring. This improves employee satisfaction, wellness and work performance.

OpenArch's Environmental Sensor enables any intelligent building to precisely measure a variety of essential environmental parameters including:



Occupancy



VOC gases



Temperature



Flicker



CO₂ control



Occupation noise



Humidity





THE REDUCED TOTAL COST OF OWNERSHIP

Optimizing operational & maintenance costs

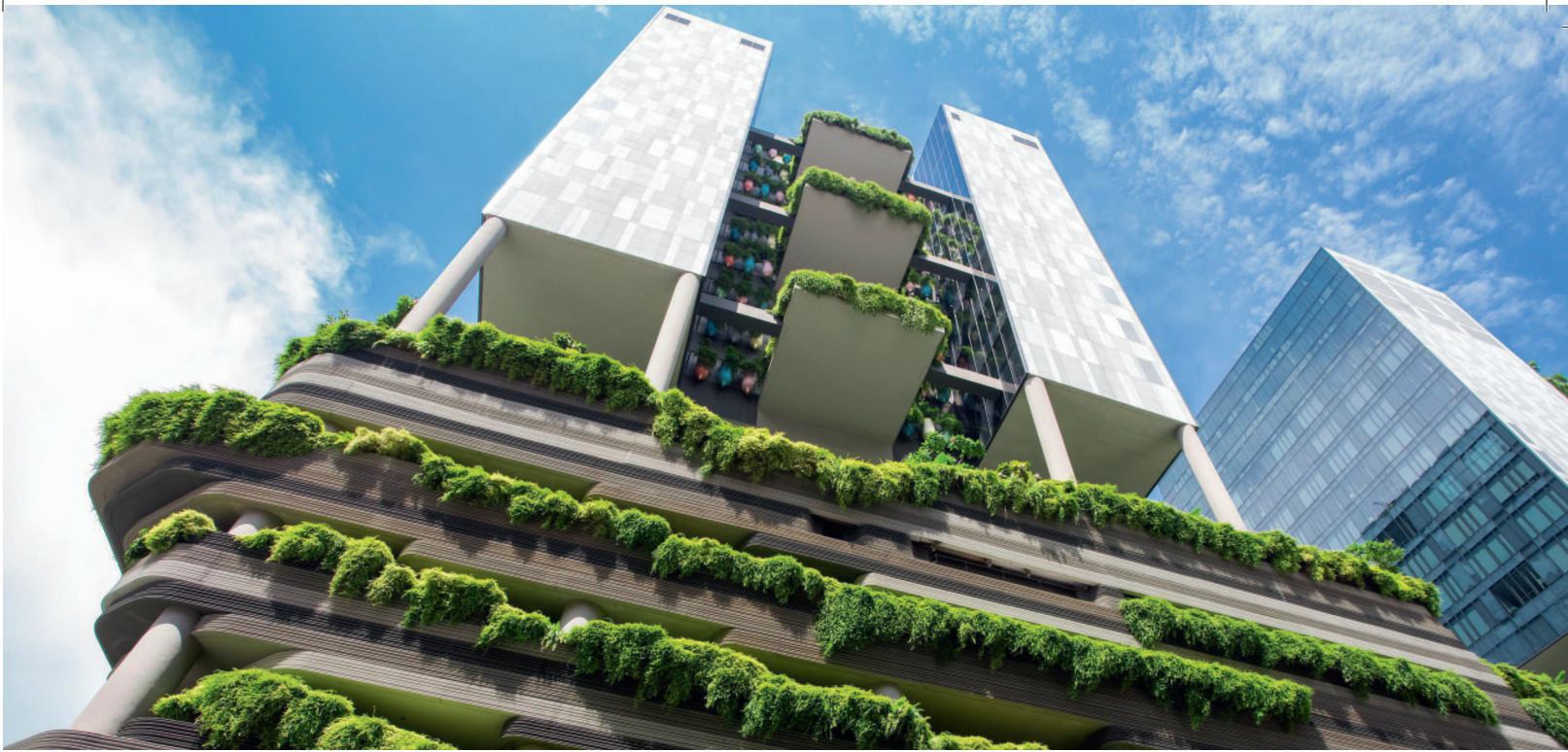
Fully integrated buildings with effective management systems provide easy visualization of energy consumption trends and mitigate costly problems. Starting from removing the excess expense of managing multiple, disparate systems to saving costs while increasing building efficiency, operational performance and overall comfort.

The supervision and control systems allow the monitoring of all the vital parameters of buildings, facilitates ordinary and extraordinary maintenance

and optimizes the archiving of all data with connection to the management software. The transparency of the operational costs allows building operators to measure and track the benefits in outcome of any change.

The energy management monitoring and targeting helps drive down energy cost as well as fault detection and diagnoses to reduce maintenance cost. Preventive building maintenance can also help to keep cost under control.





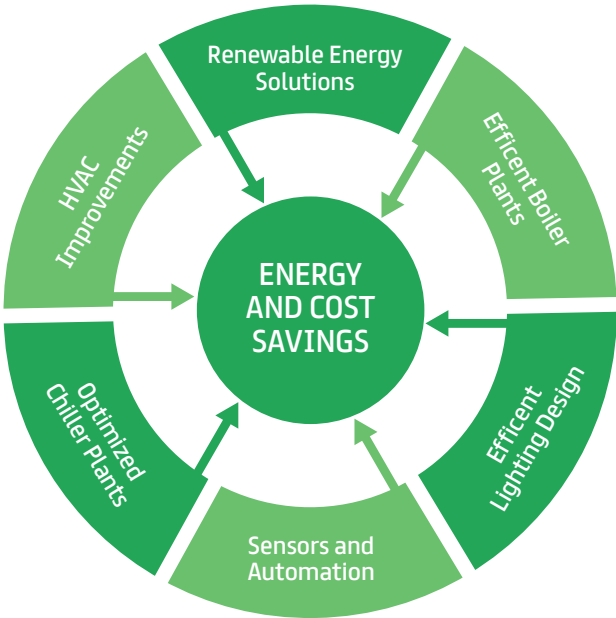
FACILITY UPGRADE WITH OpenArch

Retrofitting older buildings with smart technology

Existing buildings comprise the largest segment of the built environment. It is important to initiate energy conservation retrofits to reduce energy consumption and the cost of heating, cooling, and lighting. However, conserving energy is not the only reason for retrofitting existing buildings. Retrofitting can often be more cost-effective than building a new facility.

Retrofits are an option in all types of buildings including commercial, residential, industrial and data centers. They can be designed around sustainability initiatives to reduce operation costs and environmental impacts, and can increase building adaptability, durability, and resilience.

Facility modernization solutions and services. Customized and combined, the OpenArch suite of solutions improves building performance, lowers costs and reduces exposure to risk with guaranteed results.





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