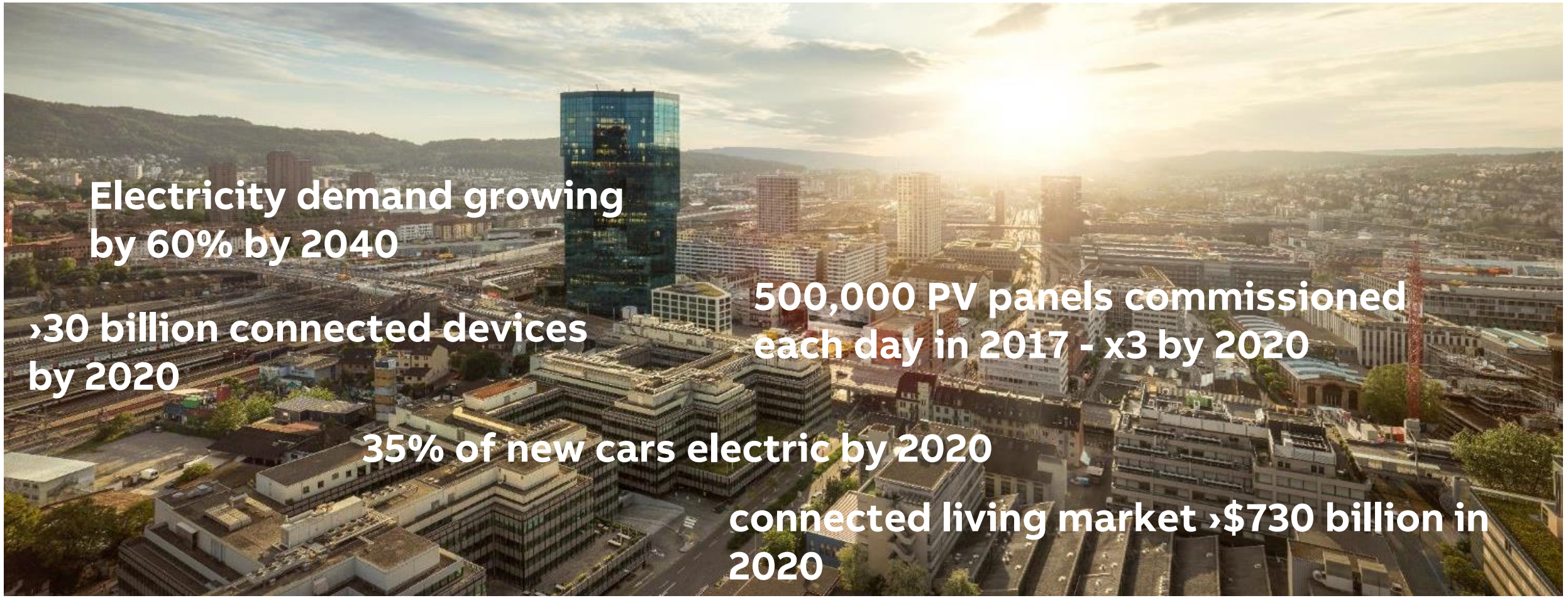
ABB Ability™ Electrical Distribution Control System

Understanding Power

Responding to a changing world



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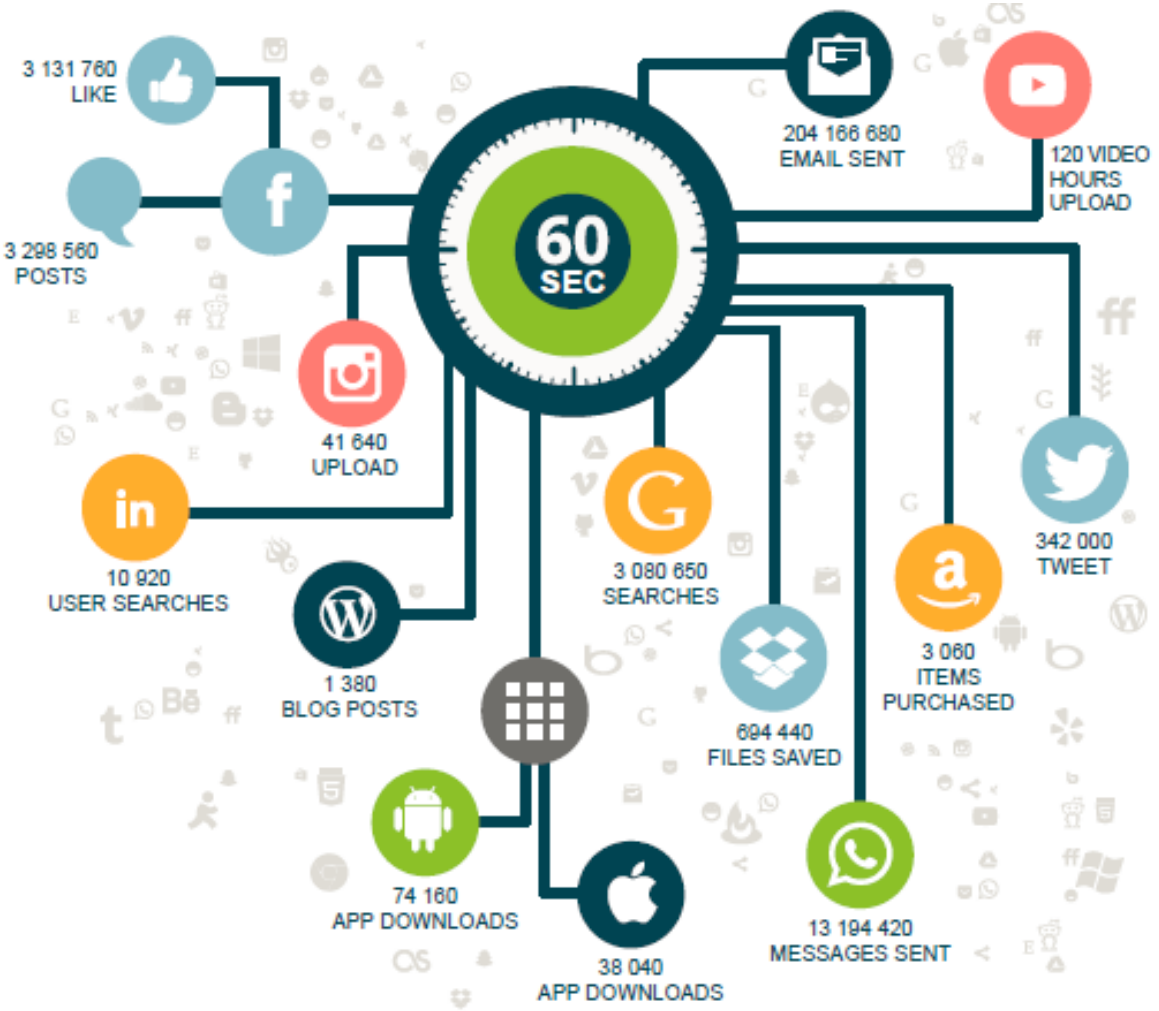
A digital transformation
Expanding horizons



How ABB Ability™ solutions deliver value

Digitally connected products and services providing expertise

Together

Do better

Do more

Know more

Analyze

Sense

Act

Collaborate

Optimize

Automate

Assess

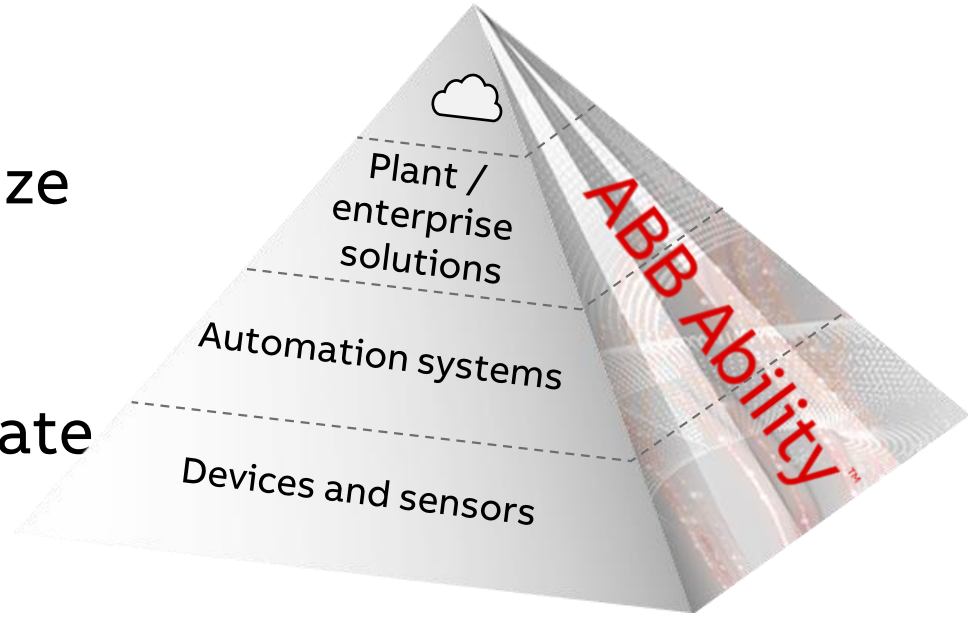


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ABB in Digital

Uniquely qualified

Information

$400 bn installed base
125 year history
Context

ABB EXPERTISE

Technology

Electrical
Material
Mechanical
Digital

Know-how

Industry
Geography
Automation
Process

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Data & Connectivity

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Why?

Customers want to increase awareness on owned resources, improve performance and optimize their assets **to reduce total operating costs**

What?

ABB Ability™ Electrical Distribution Control System is a **cloud-based energy management and asset supervision solution** for buildings and industrial sites.

How?

It helps simplify facilities management, and **reduce energy and maintenance bills, enabling a 30% reduction on operating costs**

The power of understanding at your fingertips

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Features and Benefits

Cloud-based Energy and Asset Management

Monitor

Discover plant performance, supervise the electrical system and allocate costs

Optimize

Analyze the relevant information, improve the use of your assets and take the right business decision

Control

Remotely implement an effective power management strategy to simply achieve energy savings

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How it works

Plug & Play Architecture

Leveraging the connectivity and sensing of ABB devices, we can model new outlines for innovation in the **low-voltage power distribution** business.

Emax 2 air circuit breaker, now becomes the smart hub by managing both **power and data flows**.

A **simple** and **integrated architecture** enabling truly plug & play approach.

The evolution continues

ABB Ability™ Electrical Distribution Control System

Case study

Italian water utility

ABB Ability™ Electrical Distribution Control System helps the **Consorzio di Bonifica Veronese** to remotely monitor and optimize two pumping stations and a hydroelectric power plant.

- **24’000 €** grants (Energy Efficiency Certificates)
- **30%** savings on operating costs
  - Optimization of personnel’s tasks and costs
  - Downtime prevention
  - Removal of power quality penalties

Read the press release

Watch the video

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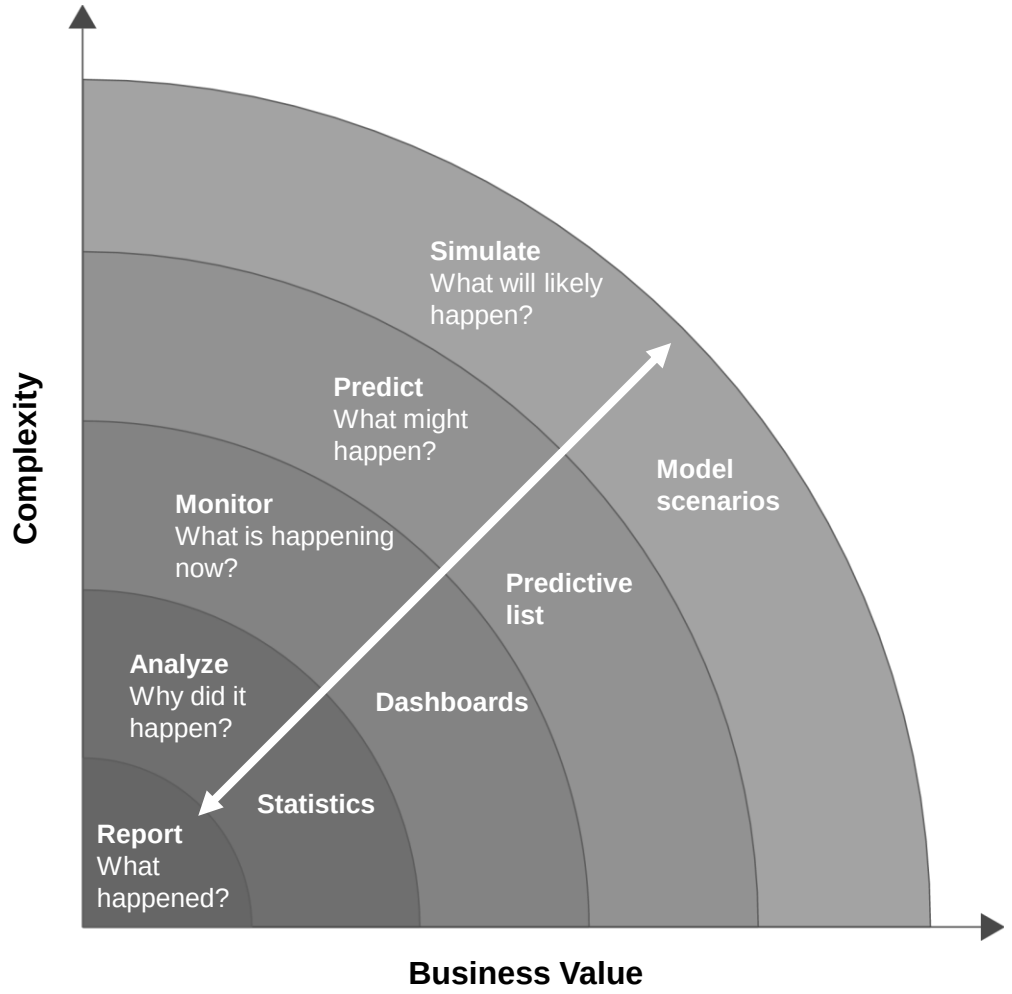
The journey has just started

- **Broaden** the application range and features
- Expanding our capabilities around **advanced analytics** and simulation
- Lead operational efficiency to **reduce footprint** and **costs**
- Achieving risk-based **predictive maintenance** maturity to drive better resource optimization, reliability, safety and compliance
- **Big data** leading to better products



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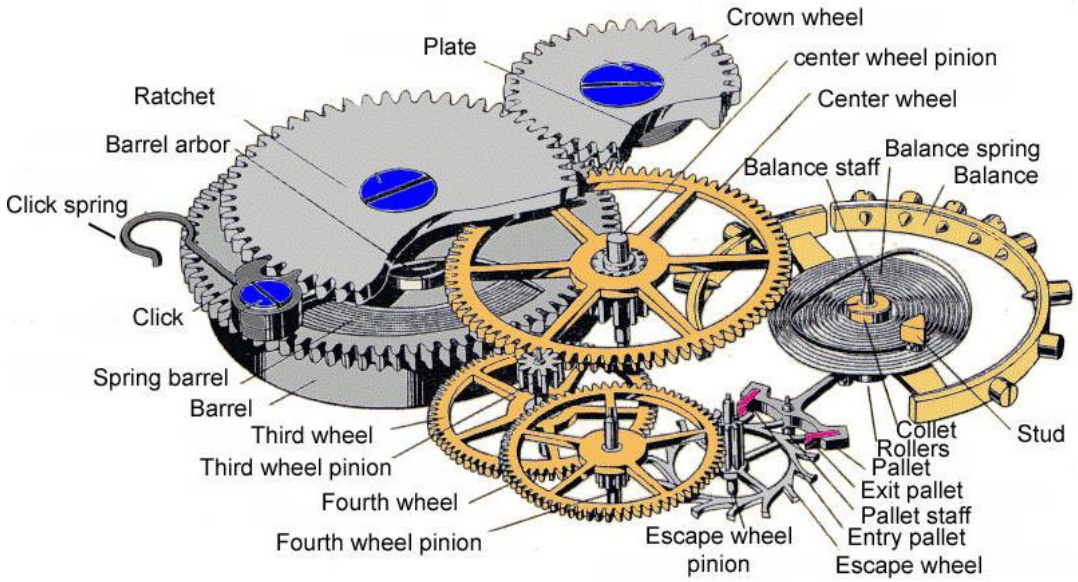
Manage complexity



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How it works

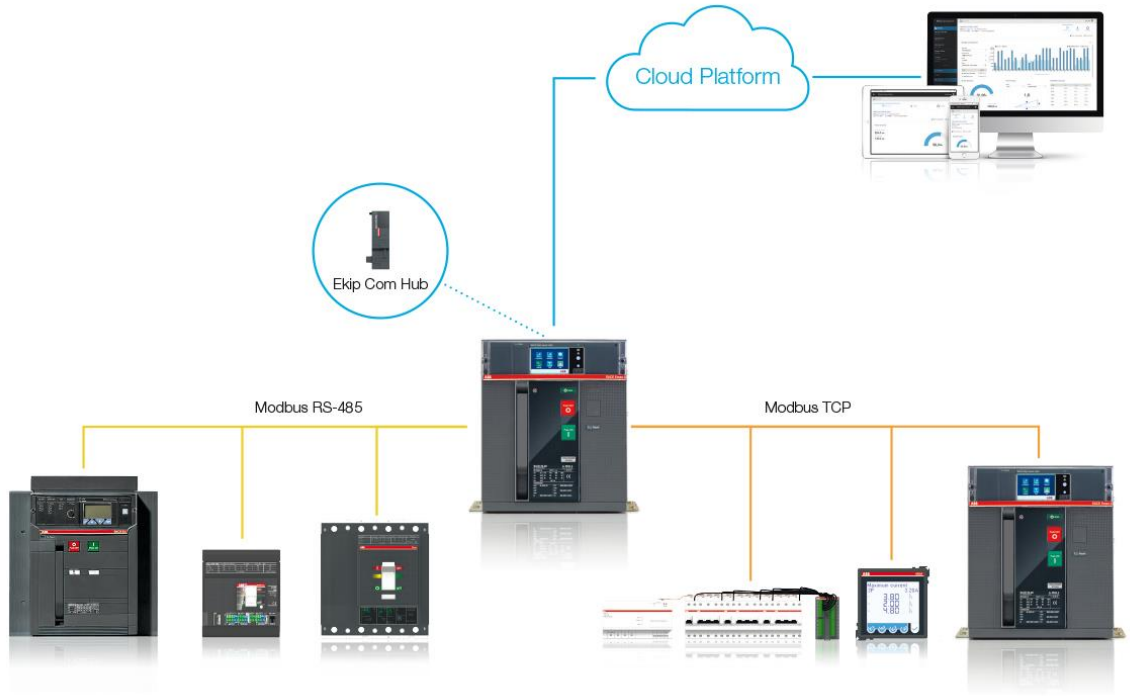
Embedded solution

Plug-in the **Ekip Com Hub** module on Emax 2 or Ekip UP and start Ekip Connect wizard.

In **less than 10 minutes** the panel is connected to the cloud.

Plug & play:

- ACBs
- MCCBs
- MCBs
- Energy and Power meters



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How it works

External solution

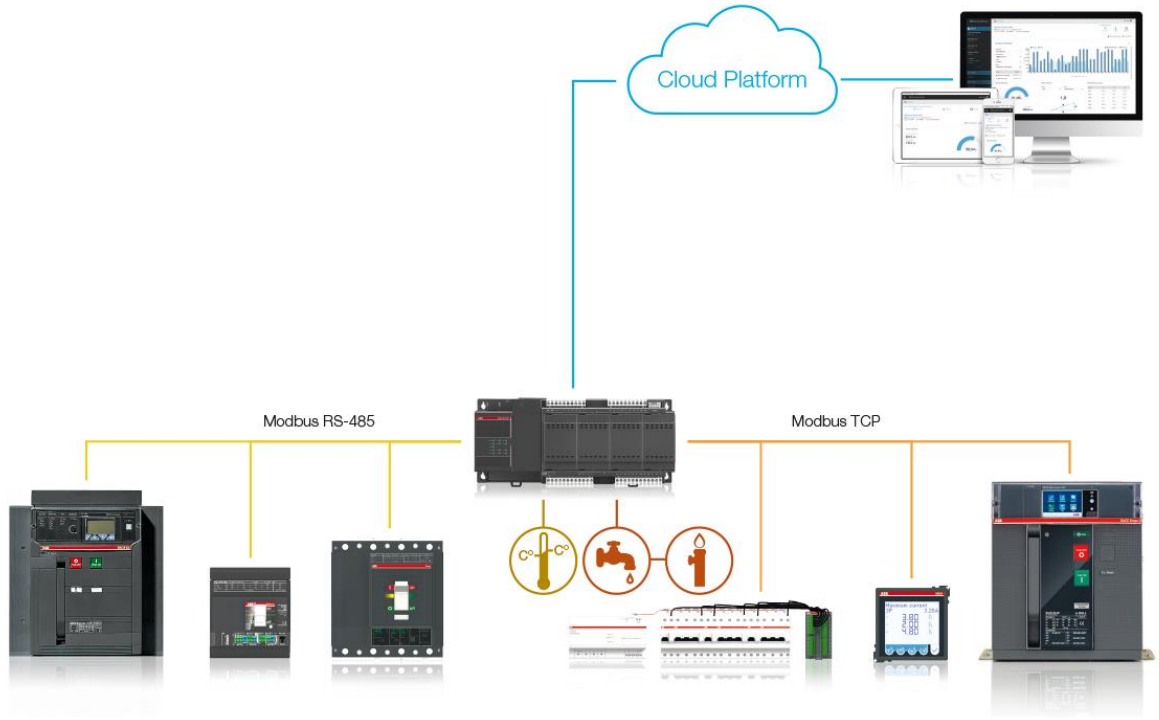
Connect devices to **Ekip E-Hub** DIN rail module.

High flexibility and **extended retrofitting**.

Easy and fast configuration via Ekip Connect wizard.

Plug & play:

- ACBs
- MCCBs
- MCBs
- Energy and Power meters
- Analog and Digital meters



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How it works

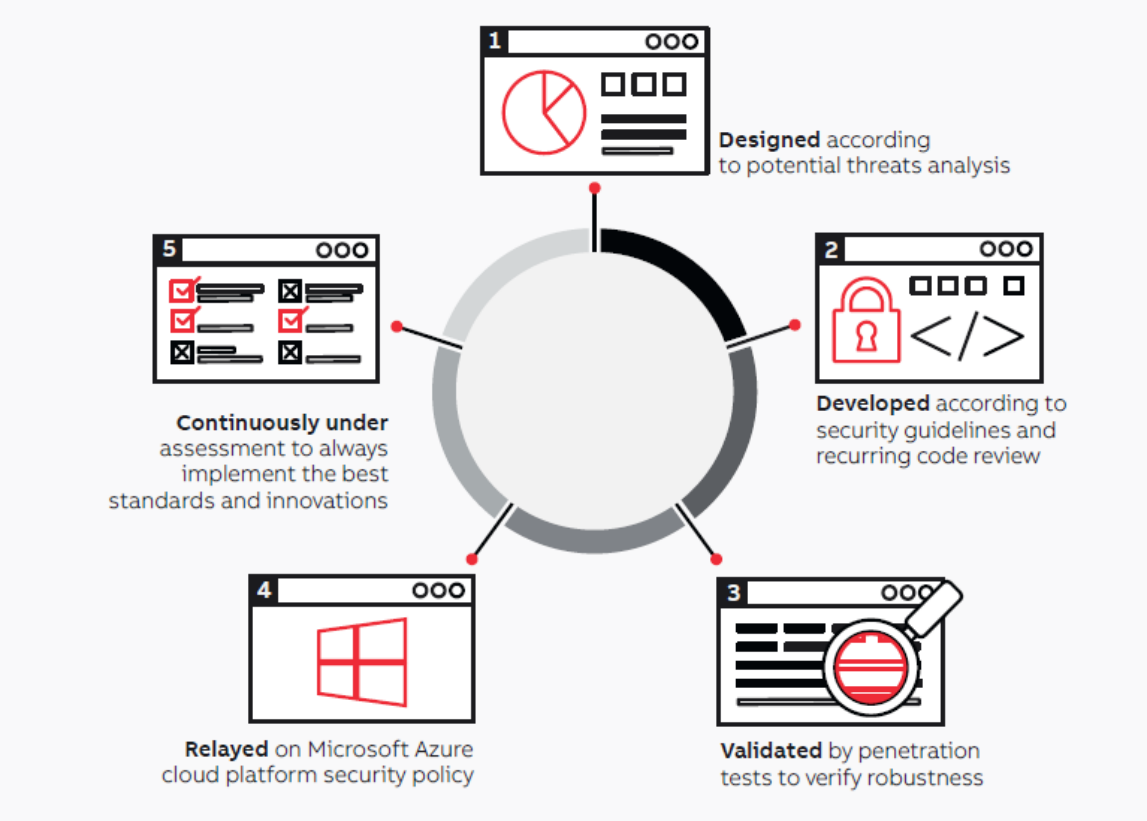
Cloud & Cybersecurity

Why cloud-computing

- **Innovation** and **security** as a standard
- **Scalability** as a drive for business advantage

Cybersecurity

- **Design and development:**
  collaboration between ABB and Microsoft
- **Test, assessment and validation:**
  ABB corporate research center and global IS, and specialized partner on IT security



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Typical market

Building

Commercial Building, e.g. hotels, shopping malls, retailers and chain stores

Public facility

Public or institutional buildings related to the tertiary section, e.g. medical facility, sport and convention center, school

Industrial

Small-Mid size Industrial plant and Infrastructure

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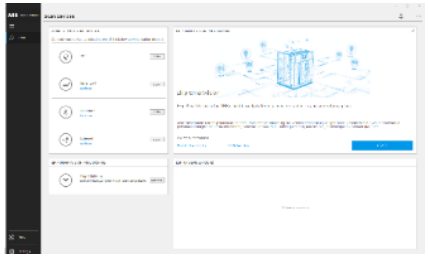
A simple shopping list

Hardware

- Ekip Com Hub
  - Emax 2 or Ekip UP embedded communication module for cloud-connectivity
- Ekip E-Hub
  - DIN-rail mounted communication module for cloud-connectivity

Commissioning tool



- Ekip Connect 3 Software available via free download

Services

- ABB Ability™ EDCS
  - subscription to monitor, optimize and control your systems
  - Each subscription is valid for one site, up to 15 users' access