



Antonio Gordillo / 17 Agosto 2021 / IMA Marketing

Welcome

Presentación

CLOUD's tipos y proficloud.io con orientación a Servicios SMART



News 2021

Agenda

- CLOUD's tips
 - PROFICLOUD and SMART Platform
 - PROFICLOUD.IO
 - Servicios SMART
-

CLOUD's Tipos



CLOUD's Nubes Definiciones **What is cloud or cloud computing ?| on-premises and cloud explained |**
Free CCNA 200-301

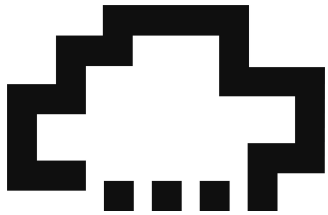
Oferta

CLOUD's



Cloud Strategy for Intelligent Networking

Proficloud, Public Cloud, Private Cloud, any Cloud



PROFICLOUD



Alibaba Cloud



Google Cloud



Azure

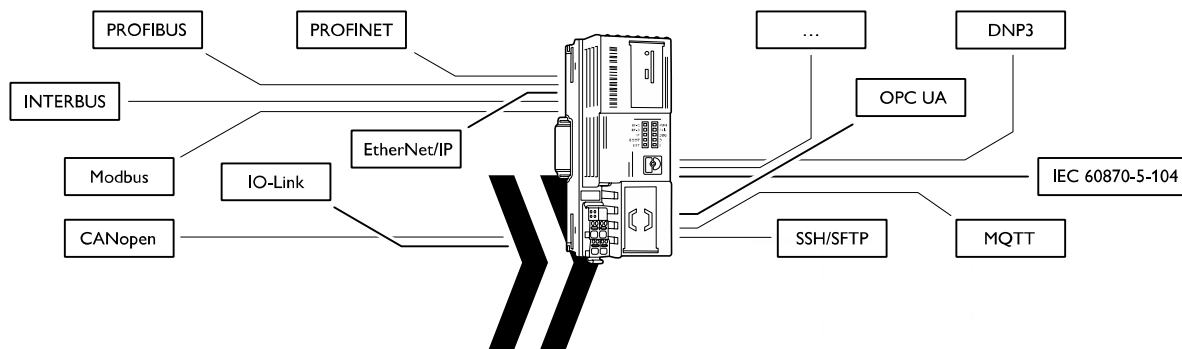


IBM Cloud

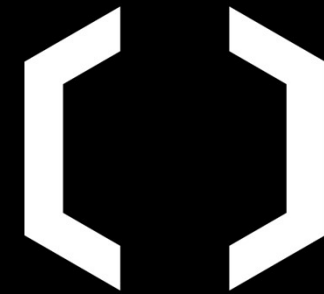
Implement new IoT-based business models through direct connection to cloud-based services and databases. With the cloud agnostic strategy, a cloud connector to any cloud can be downloaded via PLCnext Store and a fully integrated Proficloud connectivity, PLCnext Technology provides full support for any cloud strategy - public, private, hybrid - including AWS, IBM, Azure, Alibaba and MindSphere.

enhanced connectivity – Intelligent Networking

Future-proof Connectivity



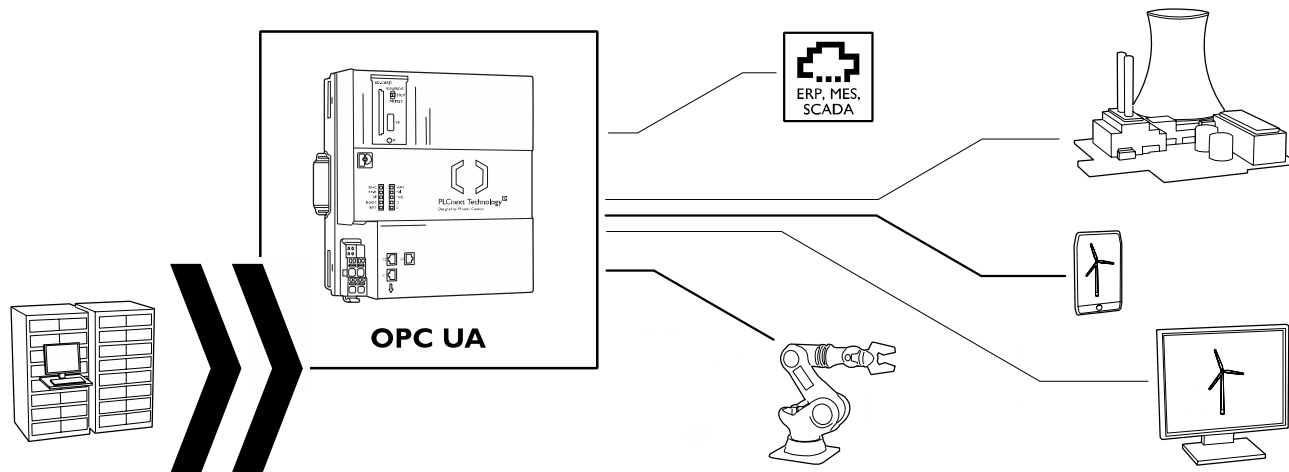
PLCnext Technology 
Designed by PHOENIX CONTACT



PLCnext Technology enables the integration of current and future interfaces and protocols for open communication in highly networked automation systems.

enhanced connectivity – Intelligent Networking

Integrated OPC UA Server



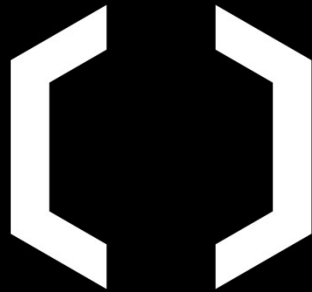
PLCnext Technology 
Designed by PHOENIX CONTACT

**Data Access, Alarms and
Conditions, Programs, Historical
Access, Global Discovery Server**

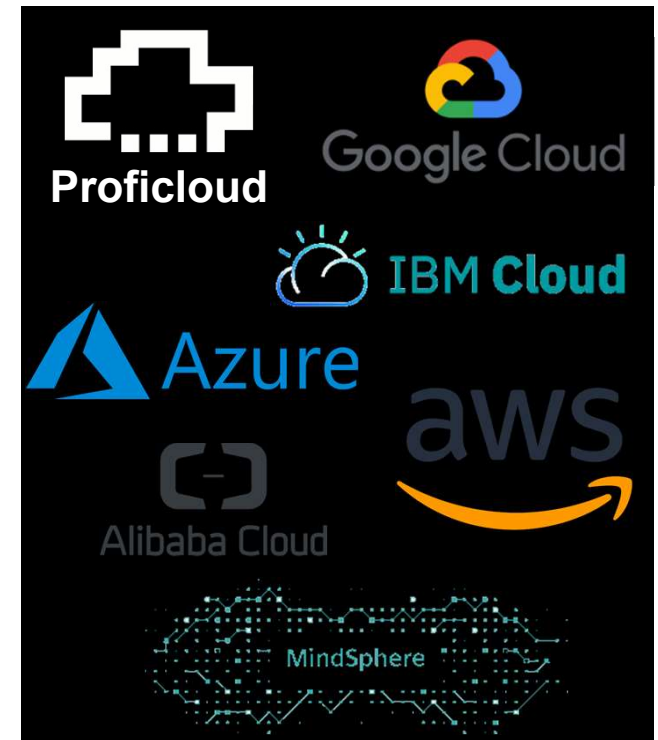
enhanced connectivity – Intelligent Networking

PROFICLOUD, Public Cloud, Private Cloud – any Cloud!

Implement new IoT-based business models through direct connection to cloud-based services and databases.

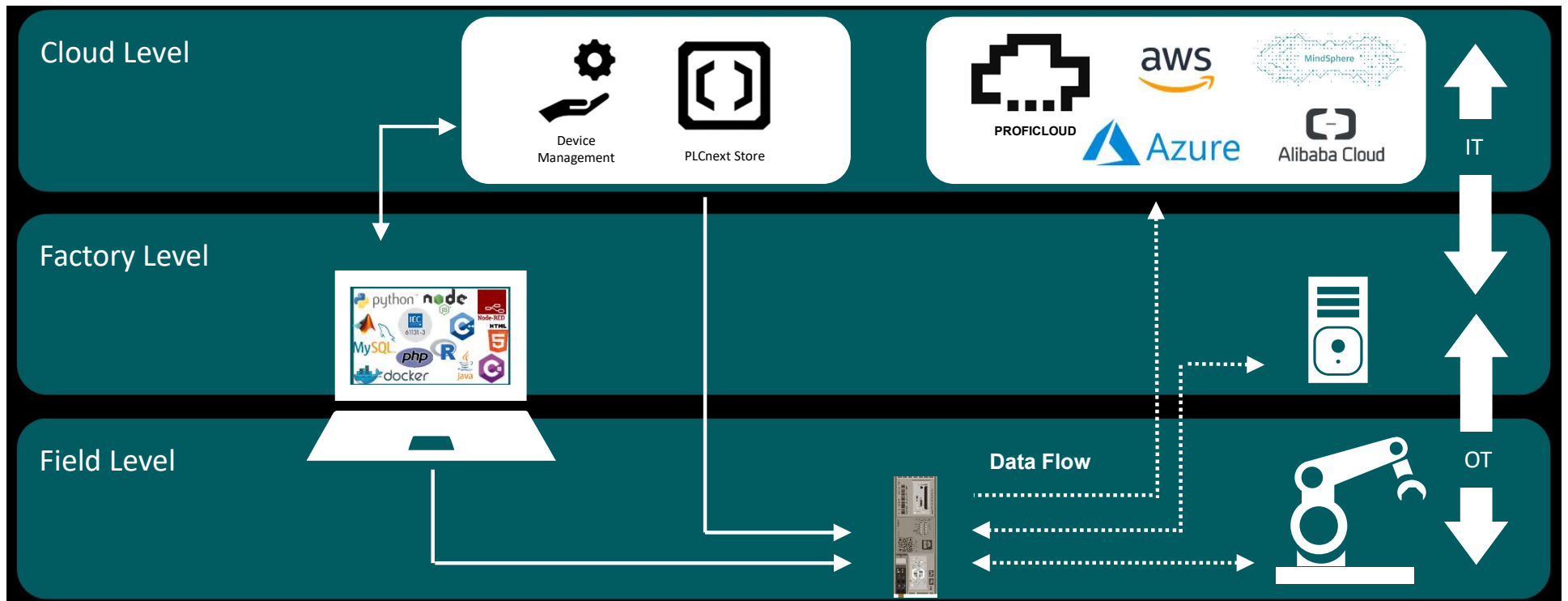


Benefit from the seamless integration of Phoenix Contact's PROFICLOUD and a cloud-agnostic strategy where the PLCnext Store delivers cloud connectors for every cloud. PLCnext Technology supports any customer cloud implementation – public, private, hybrid - including AWS, IBM, Azure, Alibaba, and MindSphere.



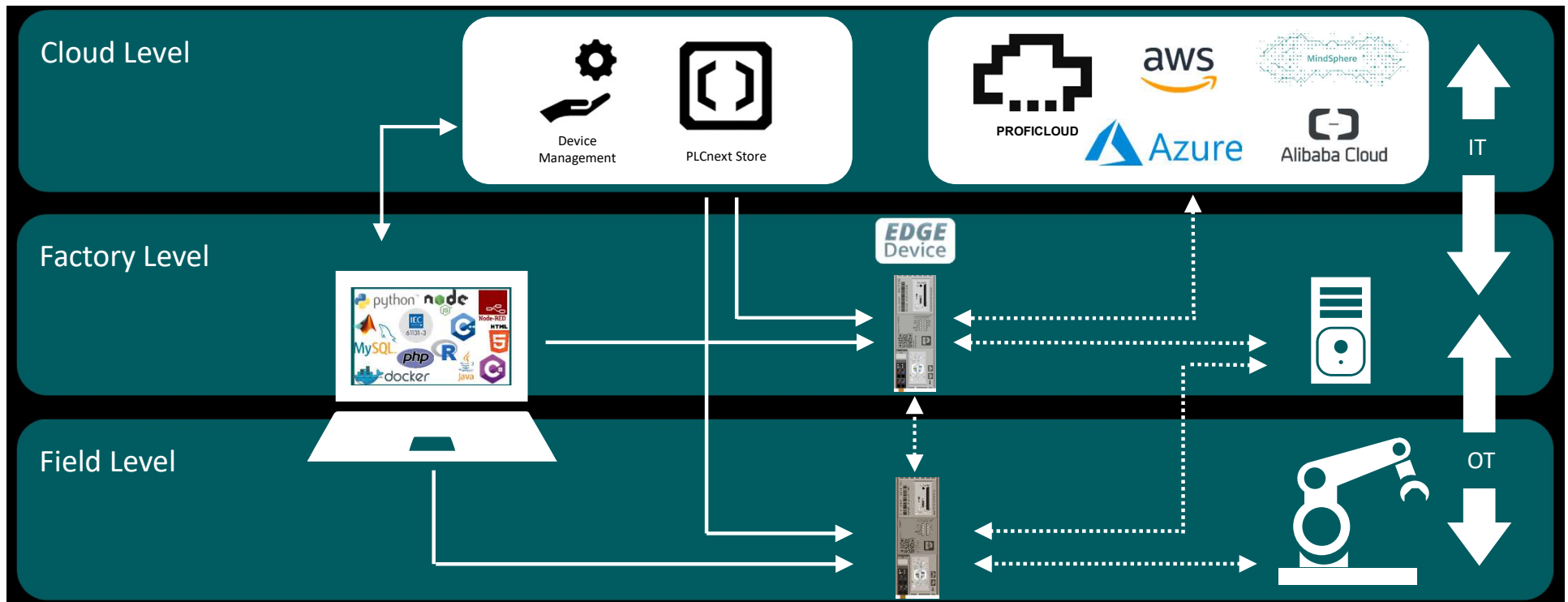
enhanced connectivity – Edge Device or PLC connecting all Levels

PLCnext Control as PLC



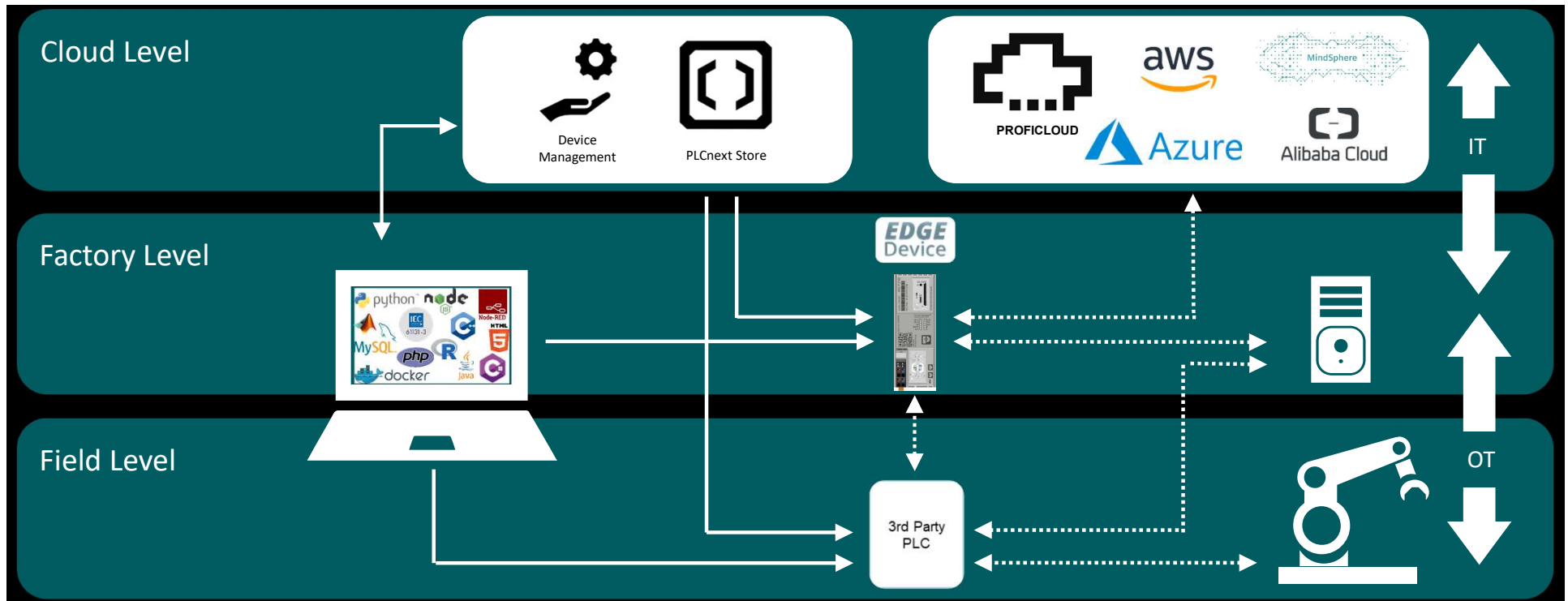
enhanced connectivity – Edge Device or PLC connecting all Levels

PLCnext Control as PLC and Edge Device



enhanced connectivity – Edge Device or PLC connecting all Levels

PLCnext Control as Edge Device





PROFICLOUD and SMART Platform

Definition

PROFICLOUD



PROFICLOUD

Elements

PROFICLOUD

Our cloud solutions

With the PROFINET and Time Series Data cloud solutions, Phoenix Contact offers you cloud-based automation solutions that are perfectly tuned to your company's requirements and needs. This lets you benefit from fast value creation and full cost transparency, thanks to the pay-per-use model.

Cloud gateway for PROFINET

The Cloud gateway is the secure connection between your local PROFINET network and Proficloud, and makes it possible to use the cloud services.

PROFINET cloud solutions

Thanks to PROFINET cloud solutions, you can make your existing PROFINET network cloud-capable and add cloud services. This lets you directly see the benefits of Proficloud, e.g. for remote applications or when using services such as monitoring, reporting, or calculation.



Cloud controller for PROFINET

The modular Axiocontrol controller makes communicating with Proficloud possible.

Elements

PROFICLOUD

Time Series Data cloud solutions

The Time Series Data cloud solutions allow you to capture, evaluate, and visualize the process data from your machines and systems. This forms the basis for predictive maintenance and other big data applications. Thanks to web-based dashboards, you have access to your data anywhere and at any time.

Cloud controller with PLCnext Technology

With PLCnext Control based on PLCnext Technology, you connect directly with Proficloud and individually integrate cloud services.




PLCnext TechnologyTM
Designed by PHOENIX CONTACT

Cloud IoT Gateway

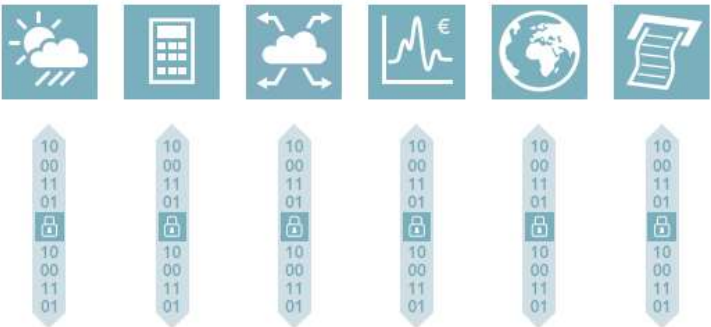
With our Cloud IoT Gateway, you integrate new and existing systems into Proficloud without the need for additional engineering effort. Thanks to its support of various protocols, it enables tailored and fast process integration.

Further information on the
Cloud IoT Gateway:
Simply type the web code into the
search field on our website.

 Web code: #1810



Elements



PROFICLOUD



Cloud services


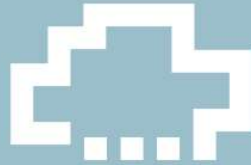
Benefit from the almost unlimited possibilities that cloud services or the software development kit offer for your automation.

PROFINET cloud solutions	
	
Software Development Kit CLOUD SDK4J	Cloud services: weather, calculation, system couplers
Order no. 2404475	Order no. 2403325
Download free of charge	Order no. 2403326
	Order no. 2404449

Time Series Data cloud solutions	
	
Software Development Kit CLOUD SDK4J	Grafana dashboard
Order no. 2404475	Free of charge
Download free of charge	Access via www.proficloud.net

Elements

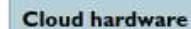
PROFICLOUD



Cloud Credits
Simple, transparent pricing models enable you to operate flexibly.

Your currency in the Proficloud			
			
Cloud Credit 1 Credit: 8,760 units	Cloud Credit 2 Credit: 17,520 units	Cloud Credit 5 Credit: 43,800 units	Cloud Credit 10 Credit: 87,600 units
Order no. 2402989	Order no. 2402988	Order no. 2402987	Order no. 2402986

PROFICLOUD



Cloud hardware enables you to easily connect to new and existing machines, systems, and processes.

PROFINET cloud solutions



Cloud gateway for PROFINET Cloud Coupler-Pro

Order no. 2402990



**Cloud controller for PROFINET
AXC Cloud-Pro**

Order no. 240298

Time Series Data cloud solutions



**AXC F 2152 cloud controller
with PLCnext Technology**

Order no. 2404267



Cloud IoT Gateway

Order no. 1031235



AXC F 1152



AXC F 2152



AXC F 3152



RFC 4072S




EEM-SB370-C EEM-SB371-C IPCH-4X-PCL-TCP-24DC-UT

Cloud based Smart Services

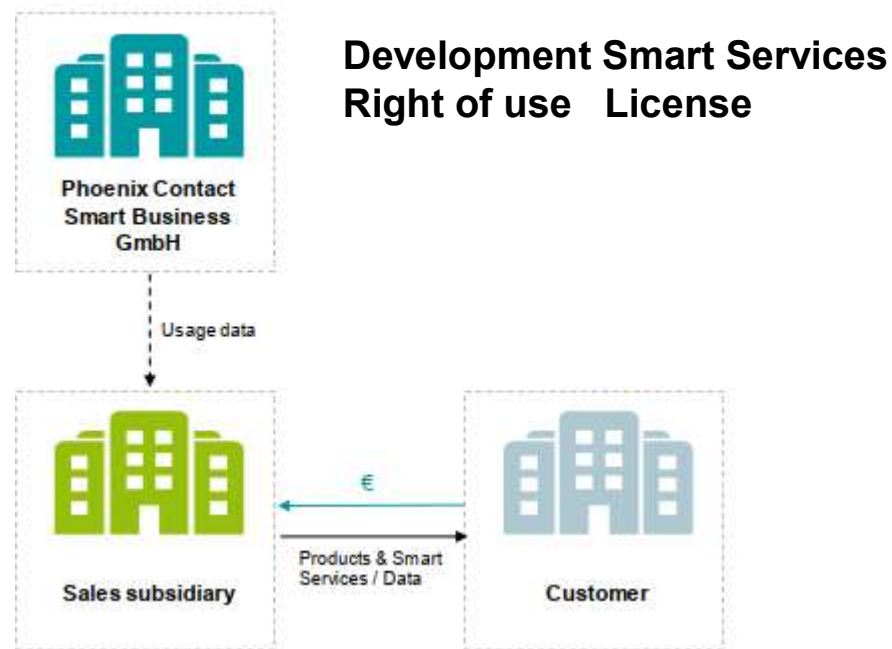
Phoenix Contact Smart Business GmbH



 Location	 Competence	 Task	 Management
21 Employees in Bad Pymont & Berlin	Frontend & Backend Development, UX/UI Design, Machine Learning, Software Architecture	Become the Smart Service and Data Science Competence Center for the Phoenix Contact Group	M. Weßelmann (GM) Dr. T. Schlichting (CDNB)

Phoenix Contact Smart Business GmbH

Business Model



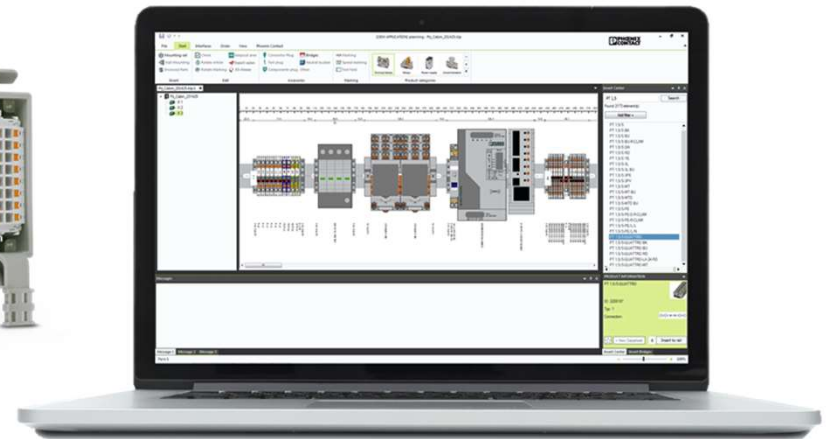
Smart Services

Smart Business

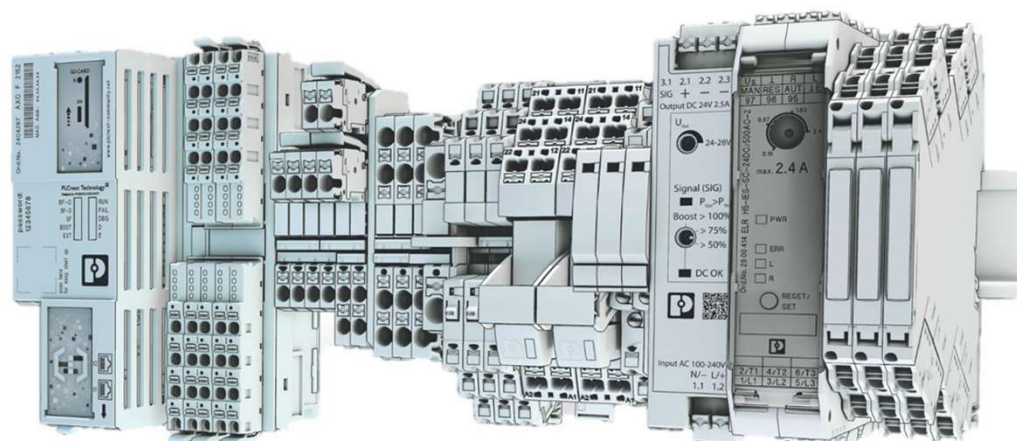


All Smart COMPLETE Line products

COMPLETE line



COMPLETE line



COMPLETE line

Cloud based solution

All Smart COMPLETE line Products

Objective: All smart COMPLETEline products support Proficloud by 2023

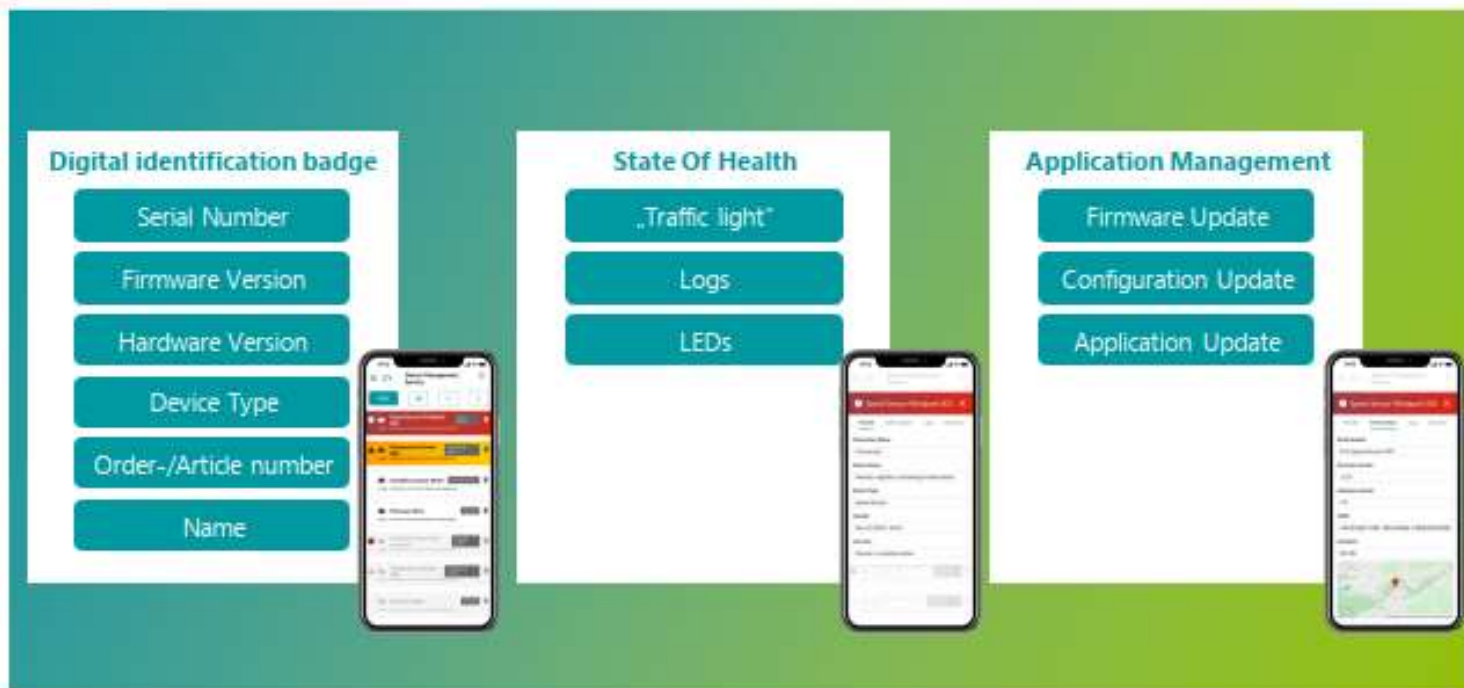


Smart Services

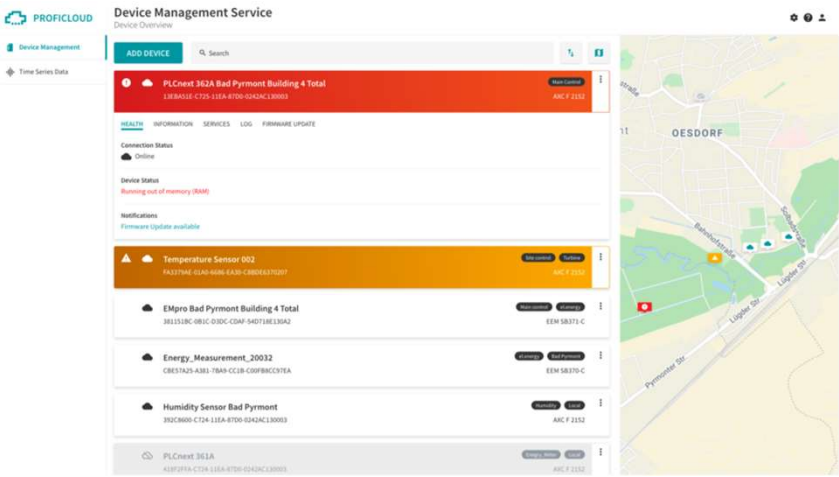
Types of Smart Services

DEFINITION	DEVICE MANAGEMENT SERVICE	SMART DEVICE SERVICES	SMART SOLUTION SERVICES
	Minimal standard for all PROFICLOUD-compatible products	Standardized value-added service for different industries / applications	Industry or application-specific value-added service
	Standardized, application-independent device information in real time	Direct linkage to one or more PROFICLOUD-capable products	Combination of Smart Device Services
	Fulfillment of minimum requirements for industrial products in the digital age	High data value added and additional customer willingness to pay	
			Value add

Device Management Service

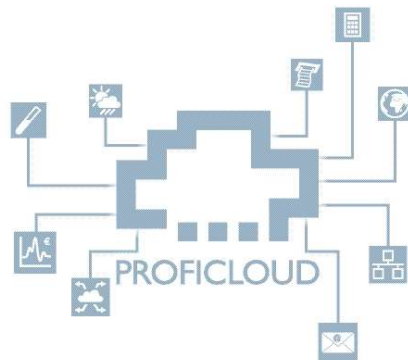


Device Management Services



Video Device Management Services

PROFICLOUD Generation 2 enables state of the art Smart Services



Secure

- From the cloud to the device
- Hosting (IaaS) at the market leader with server location in Frankfurt

Powerful

- Unlimited memory and computing power
- Access and user management
- Build-In Visualization
- Easy integration of ML algorithms

Extendable

- Multi-Cloud ready
- Connectivity to AWS, AZURE, Alibaba, ...

Connective

- SDK for PHOENIX- and 3rd party devices
- Data normalization for common protocols

Intuitive

- Easy user interface
- User centric dashboard
- Single-Sign-On for all Services related to Software at PHOENIX CONTACT

Flexible

- Different IaaS applicable e.g. AWS, Alibaba, ... (later relocation possible)
- Comprehensive support of recurring revenue streams, e.g. subscription fees

Smart Services
by
PHOENIX CONTACT

PROFICLOUD

[PROFICLOUD 2](https://proficloud.io) <https://proficloud.io>

PROFICLOUD

IaaS

PaaS SaaS

IaaS, PaaS, SaaS and the PROFICLOUD

PROFICLOUD

IaaS (Infrastructure as a Service)

- Storage, networks, fundamental computing resources ...
- Consumer does not manage or control the underlying cloud infrastructure



PaaS (Platform as a Service)

- Consumer created applications, created using programming language, libraries ...
- Consumer does not manage or control the underlying cloud infrastructure (e.g. network, computer resources)



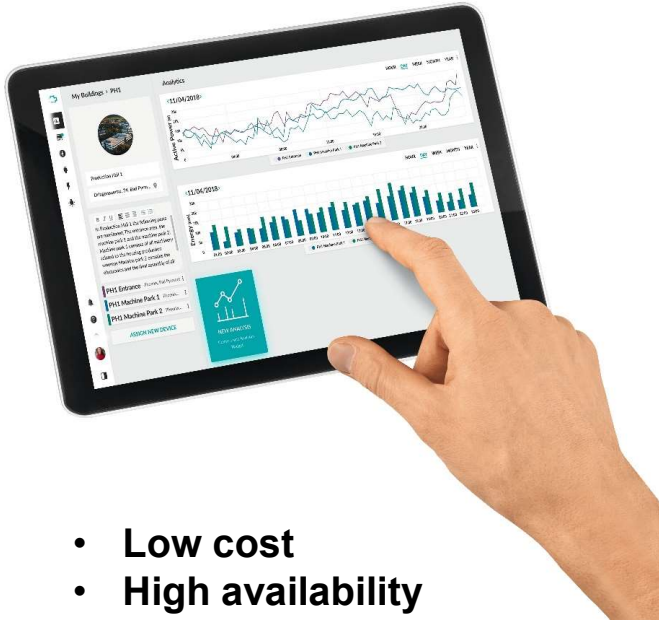
SaaS (Software as a Service)

- Consumer uses provider's applications, accessible from client interface ...
- Consumer does not manage or control the underlying cloud infrastructure or platform



CLOUD

Advantages



- Low cost
- High availability

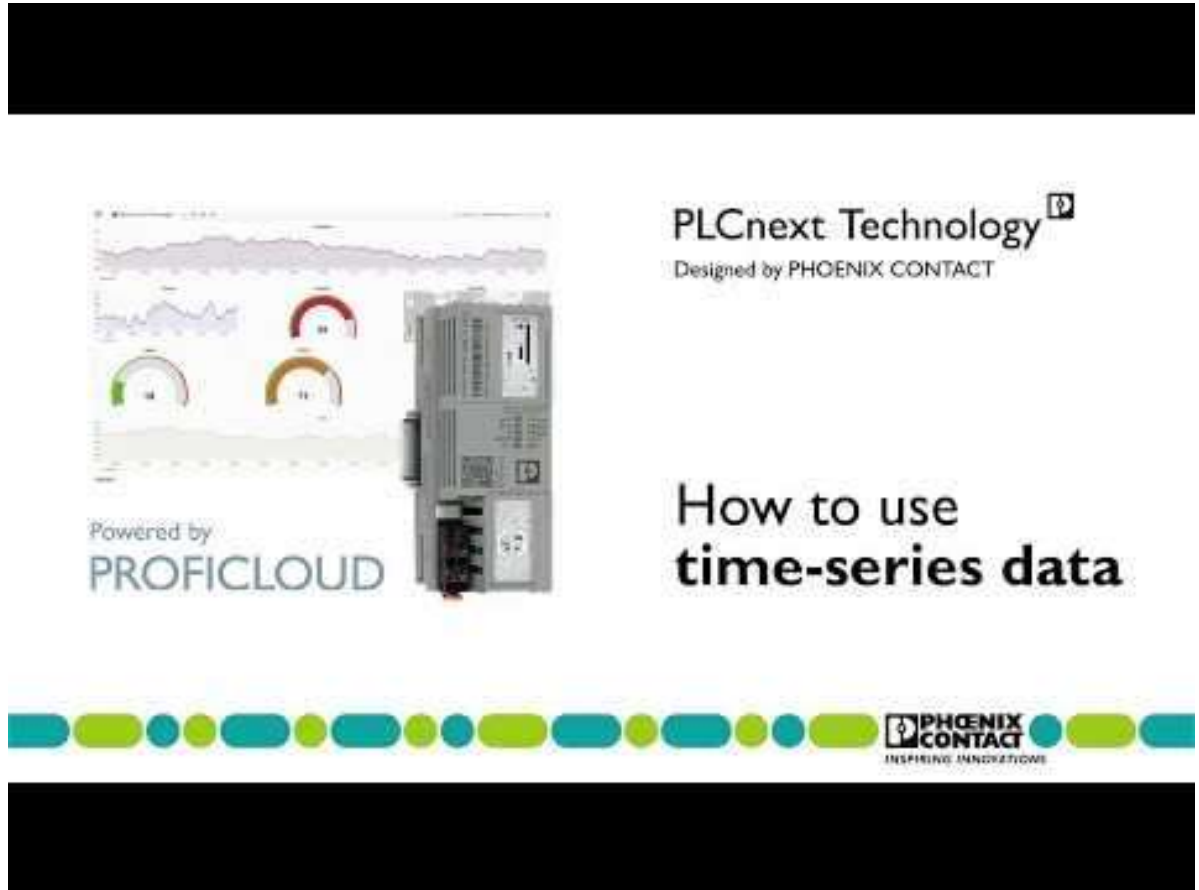


TSD Time Series Data

PROFICLOUD

TSD is a series of data indexed in time order.

The proficloud TSD Service allows customers to send data from their devices into Proficloud and have it visualized on our own dashboarding solution



PLCnext Technology[®]
Designed by PHOENIX CONTACT

How to use
time-series data

Powered by
PROFICLOUD

PHOENIX
CONTACT
INSPIRING INNOVATIONS

Energy Management Service

Dashboards on Proficloud



AXC F 2152 and PROFICLOUD Tutorial

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AXC F 2152 Setup Cloud Variables

- This guide shows how to setup a Proficloud Dashboard using an AXC F 2152 controller with the following variables configured

	Name	Type	Usage	Comment	Init	Ret...	OPC	HMI	Proficloud
▼	Default								
	xEnable	BOOL	External						
	analogIN	INT	Local		INT#0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	threshold	INT	Local		INT#15000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	xOutput	BOOL	External						
	Channel1	WORD	External						
	xEnable_cloud	BOOL	OUT Port		FALSE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	xOutput_cloud	BOOL	OUT Port		FALSE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	analogIN_cloud	INT	OUT Port		INT#0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Enter variable name here					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AXC F 2152 Setup Source Code

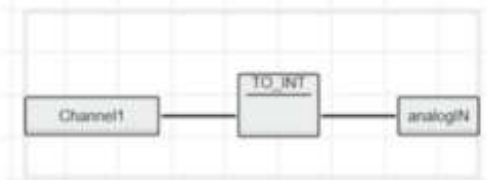
- > xEnable = DI1
- > xOutput = DO1
- > analogIN = AI1
- > Threshold = 15000

ST Code

```
IF xEnable = TRUE THEN
  IF analogIN > threshold THEN
    xOutput := TRUE;
  ELSE
    xOutput := FALSE;
  END_IF
ELSE
  xOutput := FALSE;
END_IF

//Proficloud Data
xEnable_cloud := xEnable;
xOutput_cloud := xOutput;
analogIN_cloud := analogIN;
```

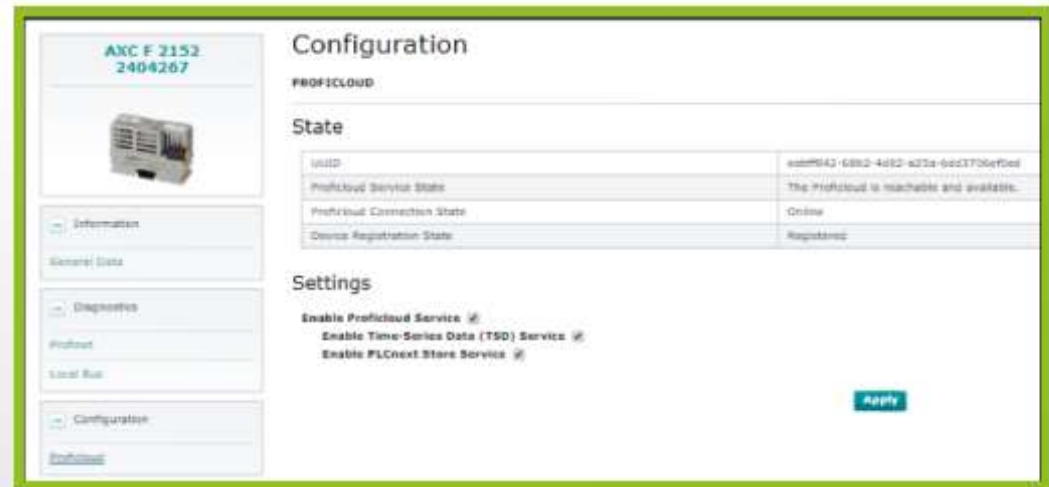
LD Code



AXC F 2152 Setup

Web-based management configuration

- Enable the Proficloud, TSD, and PLCnext store services
- Verify the Proficloud service state is “reachable and available”
- Verify Proficloud Connection State is “Online”
- Verify Device registration state is “Registered”
(The device will need to be added to proficloud first)



TSD Device Manager

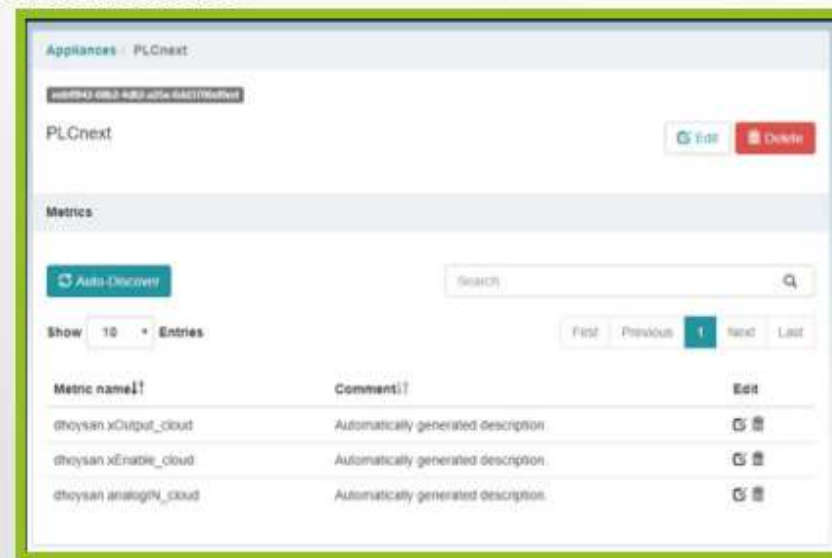
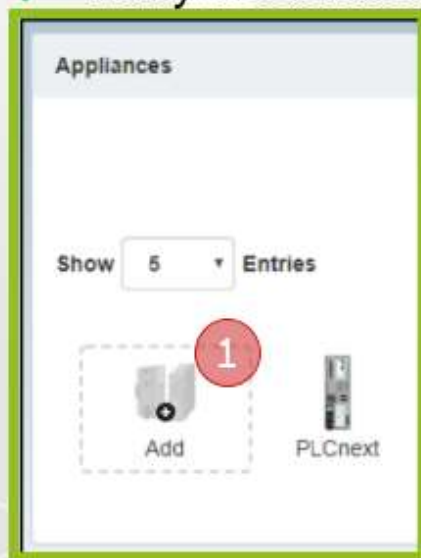
TSD Device Manager

- Choose TSD Device Manager from the Proficloud home screen



TSD Device Manager Device Registration

- Register the AXC F 2152 controller on the Proficloud by creating an “appliance” and adding the device UUID (1).
- Verify the device is online and can “auto-discover” all cloud variables



TSD Device Manager

Creating multiple accounts (nice to know, not required)

- Create a second account **(1)** and add a new user to the account **(2)** (use a secondary email)

The screenshot displays the Phoenix Contact TSD Device Manager interface. On the left sidebar, the 'Add Account' button is highlighted with a red circle and the number 1. The main content area shows the 'Members Customer 1' page. The 'Add user' button is highlighted with a red circle and the number 2. Below this, there is a table with two columns: 'Username' and 'User role'. The table contains two entries: 'Admin' and 'User'. The 'Admin' entry has a role of 'Admin' and the 'User' entry has a role of 'User'. The 'Edit' column shows icons for editing and deleting each user.

PHOENIX CONTACT

< Back to Appliances

Manage Account

Settings

Members

+ Add Account **1**





Members Customer 1

Add user **2**

Search

Show 5 Entries

First Previous **1** Next Last

Username	User role	Edit
Admin	Admin	 
User	User	 

TSD Analytics - General

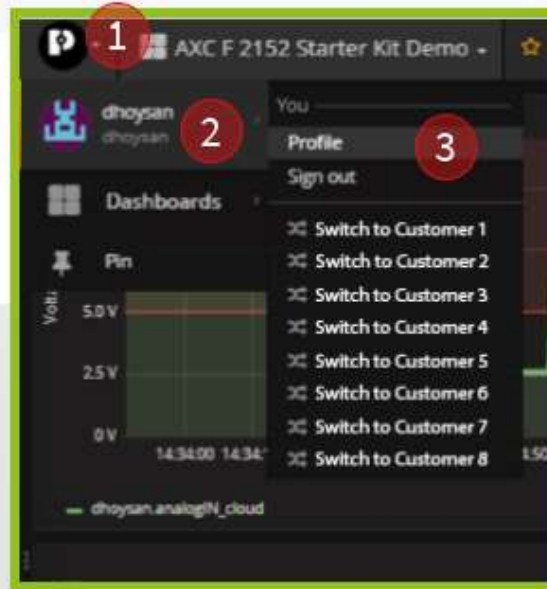
Application Access

- Go to TSD analytics from the Proficloud home page (1)
- Go to TSD analytics from the TSD Device Manager (Look out for how the dashboard changes based on which account you are on) (2)



TSD Analytics - General Dark Mode

- Change TSD analytics to dark mode
 - Click on PxC-Logo (1)
 - Click on User (2)
 - Click on Profile (3)
 - Click on UI Theme (4)



TSD Analytics - General

Rename, save, and tag a dashboard

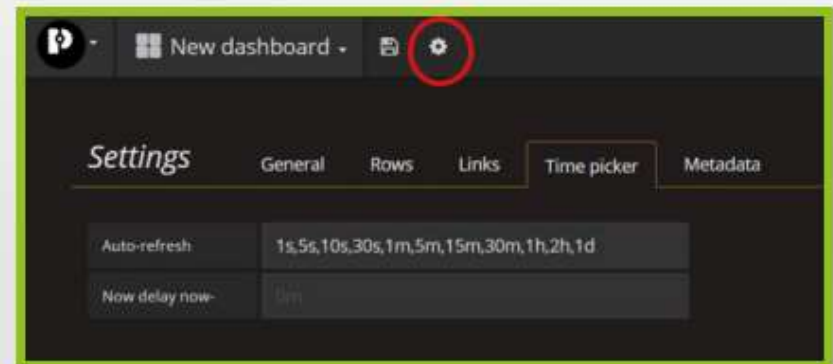
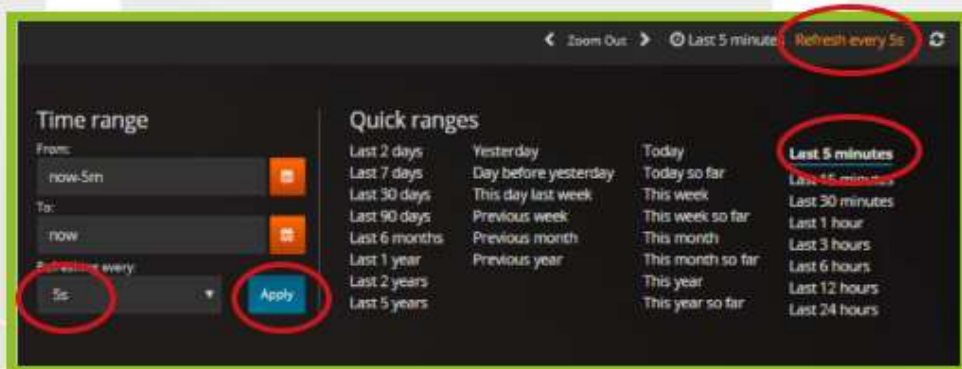
- Click on Gear (1)
- Rename the dashboard (2)
- Tag the dashboard (3)
- Save your dashboard (4)



TSD Analytics - General

Time Range & Refresh Rate

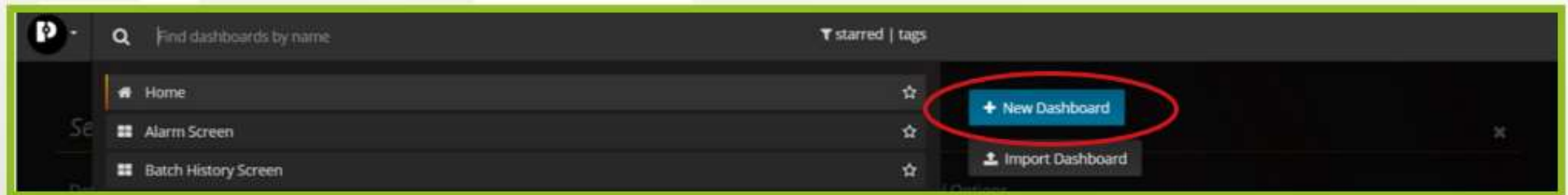
- Configure Proficloud to refresh every 5s
- Change the data range to Last 5 minutes
- Edit the Time picker settings to enable Proficloud to refresh every 1s



TSD Analytics - General

New Dashboard

➤ Create a new dashboard



TSD Analytics - Graphs

Dashboard Setup

- Create a new dashboard and add a graph (drag and drop)



- Add a single stat next to the graph (expand the menu in the upper left to find the add panel option)



TSD Analytics - Graphs

Dashboard Setup

- Add a second row with 1 graph and 2 single stats



- Add a third row with a table



TSD Analytics - Graphs

Graph Settings

➤ Click “panel title” above the first graph to edit



TSD Analytics - Graphs

General Settings

➤ Change the title to Analog Input

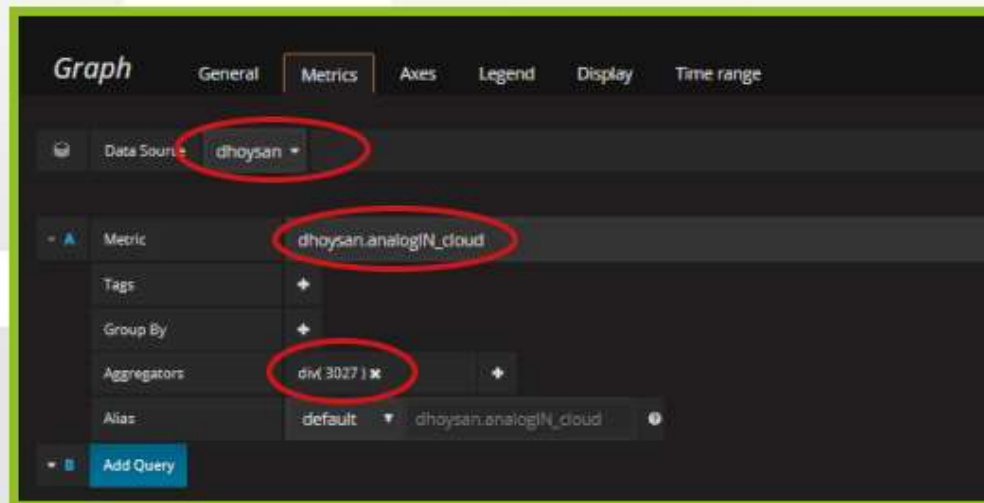
The screenshot shows the 'General' settings tab for a graph in TSD Analytics. The interface is dark-themed with a light green border. The 'Title' field is highlighted with a red circle and contains the text 'Analog Input'. The 'Description' field contains the text 'Panel description, supports markdown & links'. The 'Dimensions' section includes 'Span' (8), 'Height' (100px), and 'Transparent' (checkbox). The 'Templating' section includes 'Repeat Panel' and 'Min span' dropdowns. The 'Drilldown / detail link' section has a '+ Add link' button.

Graph		General	Metrics	Axes	Legend	Display	Time range
Info							
Title	Analog Input						
Description	Panel description, supports markdown & links						
Dimensions							
Span	8						
Height	100px						
Transparent	<input type="checkbox"/>						
Templating							
Repeat Panel							
Min span							
Drilldown / detail link							
+ Add link							

TSD Analytics - Graphs

Metric Settings

- Change the data source and add the analogIN_cloud metric (hint: just start typing and Proficloud will help you find it)
- Add an aggregator to scale the analog input values from 0-30270 to 0-10



TSD Analytics - Graphs

Axes Settings

- Set the units to Volts.
- Fix the Y Axis from 0-12
- Add a voltage label

Graph General Metrics **Axes** Legend Display Time range

Left Y		Right Y		X-Axis	
Show	<input checked="" type="checkbox"/>	Show	<input checked="" type="checkbox"/>	Show	<input checked="" type="checkbox"/>
Unit	Volt (V)	Unit	short	Mode	Time
Scale	linear	Scale	linear		
Y-Min	0	Y-Min	auto		
Y-Max	12	Y-Max	auto		
Decimals	auto	Decimals	auto		
Label	Voltage	Label			

TSD Analytics - Graphs

Legend Settings

- Configure the Legend to display as table
- Configure the legend to display min, max, average, and current values

Graph General Metrics Axes **Legend** Display Time range

Options		Values		Hide series			
Show	<input checked="" type="checkbox"/>	Min	<input checked="" type="checkbox"/>	Max	<input checked="" type="checkbox"/>	With only nulls	<input type="checkbox"/>
As Table	<input checked="" type="checkbox"/>	Avg	<input checked="" type="checkbox"/>	Current	<input checked="" type="checkbox"/>	With only zeros	<input type="checkbox"/>
To the right	<input type="checkbox"/>	Total	<input type="checkbox"/>	Decimals	auto		

TSD Analytics - Graphs

Display Settings

- Change the Fill to 2 and Line Width to 5



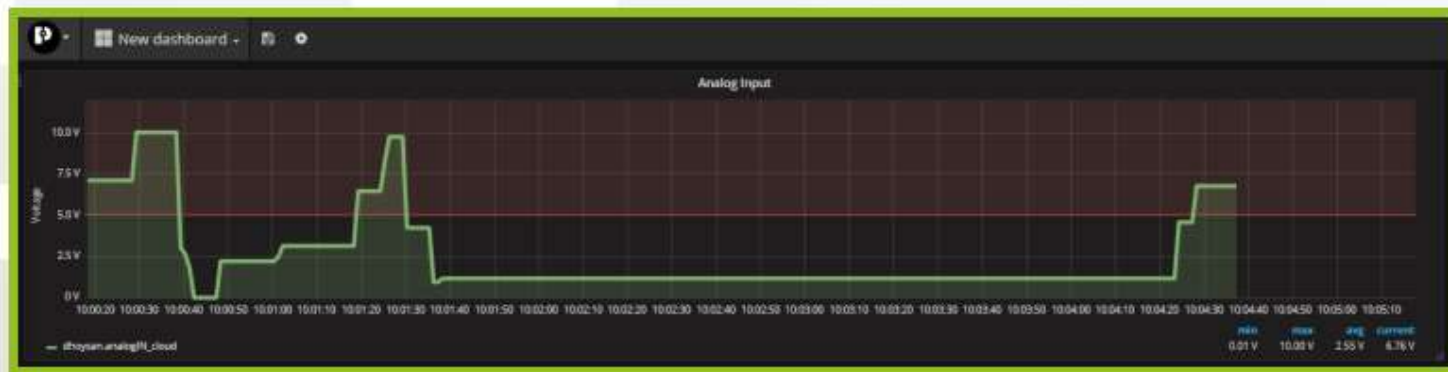
- Add a critical threshold at 5



TSD Analytics - Graphs

Analog Input Graph Check

- Your graph should now be formatted to look like this
- Change the analog input on the AXC F 2152 and watch the value change



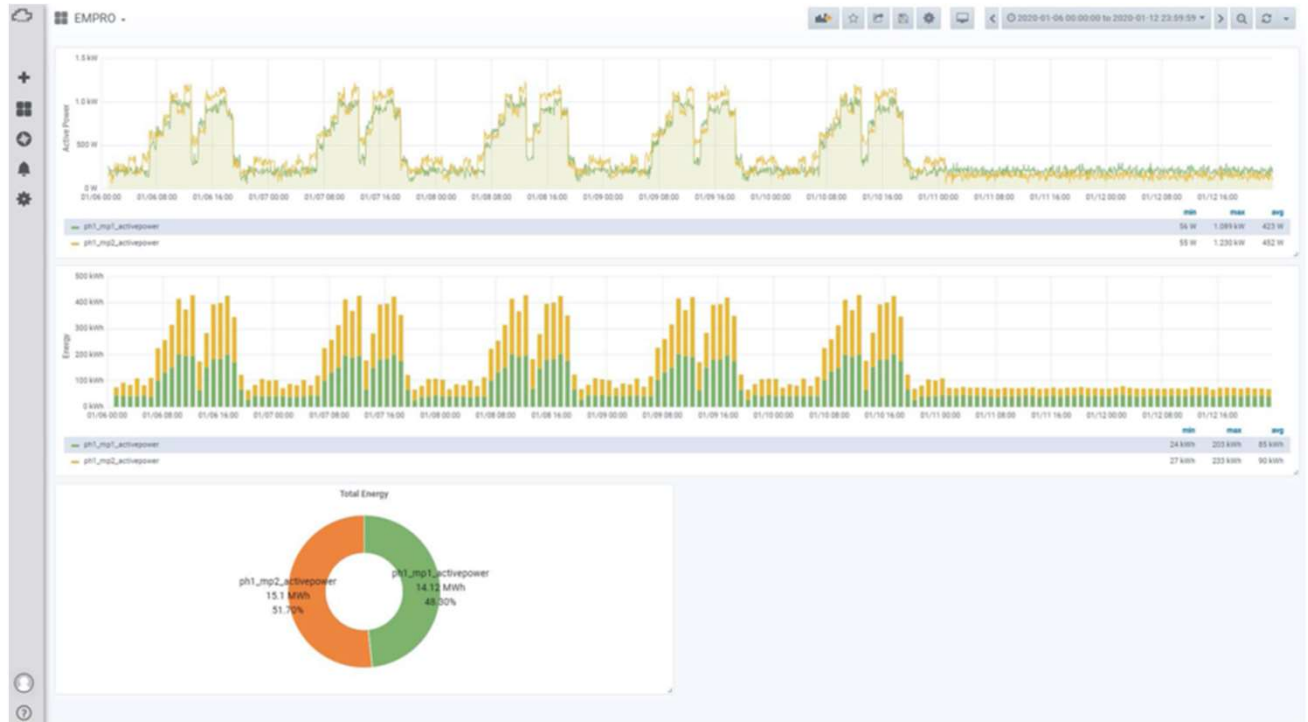
TSD Analytics – Single Stats Verification

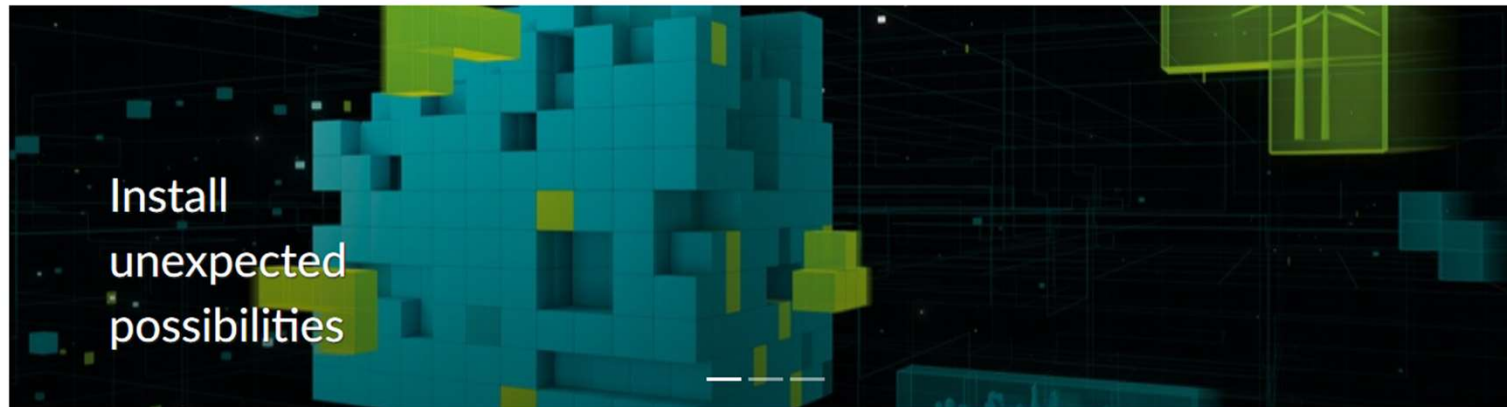
- Verify that the panel changes from OFF and Grey to ON and Green whenever the digital input tied to xEnable is toggled



Example

TSD Time Series Data





Filter

Reset all

Promoted Best Rated Top Downloads Most Recent All

Hardware

- AXC F 2152
- AXC F 1152
- AXC F 3152
- RFC 40725



easymon AXC F 2152

in-tech GmbH

Remote Monitoring of PLCnext controllers - It's that easy! With easymon you can easily view any data values from your controller live & remotely and monitor thresholds. Temperature too high, quantiti...

Get it

NEW | Function Extension

Support

Free

PLCnext Store

New Apps

PLCnext Store

0€

Type

All

Function Extension

Runtime

Library

Solution App

Rating



balenaEngine-Docker ForIOT-ARM

Phoenix Contact Deutschland GmbH

NEW | Function Extension

BalenaEngine is an OCI (including Docker) compatible container runtime for embedded systems and is based on the Moby project. Known issues: Will be found in our GitHub Project. Support: You can get ...

Free

Get it



straton Runtime for AXC F 2152

Straton Automation

NEW | Runtime

The straton Runtime is a softPLC engine allowing to develop IEC61131-3 applications for the PLCnext Controller AXC F 2152. It supports many protocols: IEC61850, IEC60870, OPC UA, Modbus... The install...

Free

Get it



DataMux

Phoenix Contact SAS

NEW | Library

This library handles communication between 2 PLCs. It permits to exchange a complete data structure, no matter the size, by the use of a multiplexed communication using the PN I/Os.

Free

Get it



Reisenbauer Solutions Runtime

Reisenbauer Solutions GmbH

NEW | Runtime

Reisenbauer Solutions stands for easy and rapid automation. The Runtime process the Logic which is programmed with our Engineering-Software Assemble. Additionally you can monitor, receive alarms and r...

Free

Get it

Library

PLCnext Store



Alarms Lib

Phoenix Contact SAS

Get it

Downloads: 26 | Library

This library handles alarms. It can use 100 different alarms, and archive them in an historic array of 1000 items. The text of each alarm has to be set by programming. The function bloc archives the a...

Free



AnalogTechnology

Phoenix Contact GmbH & Co. KG

Get it

Downloads: 665 | Library

The AnalogTechnology library offers function blocks for acquisition and evaluation of analog signals.

Free



AsynCom

Phoenix Contact GmbH & Co. KG

Get it

Downloads: 145 | Library

The function blocks of the AsynCom library are working as an interface between function blocks which are intended to communicate acyclically and bus system dependent firmware function blocks (PCP_CONN...

Free



AXL_Analog

Phoenix Contact GmbH & Co. KG

Get it

NEW | Library

Function blocks for acquisition and evaluation of analog signals for the Axioline system.

Free



AXL_ComSerial

Phoenix Contact GmbH & Co. KG

Get it

Downloads: 166 | Library

The AXL_RSUNI_PD block provides the user with a convenient option for configuring a serial connection when using the AXL F RS UNI 1H module.

Free



AXL_PDI

Phoenix Contact GmbH & Co. KG

Get it

Downloads: 85 | Library

Function blocks for asynchronous communication with Axioline modules.

Free

Solution App

PLCnext Store



Proficloud Writer

Phoenix Contact GmbH & Co. KG

Get it

NEW | Solution App

Easily automate and optimize your processes by analyzing your operational data out of the cloud. Start to log your data in the Proficloud and make it accessible no matter where you are. PHOENIX CONT...

Free



Pump Station Control

Phoenix Contact GmbH & Co. KG

Get it

NEW | Solution App

Save time and money by continuous monitoring and controlling of your pumping stations. Easily transform your controller into a pumping station without any engineering or programming effort! Pump Sta...

Free



SBT_Gateway

Phoenix Contact SAS

Get it

NEW | Solution App

This application is designed to control up to 16 InLine or AxioLine Safety Bridge devices. Both can be mixed, using the appropriate bus coupler. ----- In the technical details, y...

Free



seepex MTP

Phoenix Contact GmbH & Co. KG

Get it

NEW | Solution App

MTP interface for Seepex pump A Seepex pump can be driven using two MTP compatible services: - "Portioning": You can pump a specified amount of fluid for batch operations. - "Dosing": You can dose ...

Free



Starter Kit Demo

Phoenix Contact GmbH & Co. KG

Get it

NEW | Solution App

Use this solution app to test the AXC F 2152 Starter Kit. It is possible to test the digital inputs and outputs and to display and scale the analog input. A visualization is included. The app was deve...

Free



Tank and Well Control

Phoenix Contact GmbH & Co. KG

Get it

NEW | Solution App

Simplify and ensure your reliable drinking-water supply. Easily control your tank and wells without any engineering or programming effort! The Tank and Well Control from PHOENIX CONTACT takes on all...

Free

Function extensions

PLCnext Store



Alibaba Cloud Connector

Phoenix Contact GmbH & Co. KG

NEW | Function Extension

The Alibaba Cloud Connector can connect a PLCnext controller to the Alibaba Cloud via internet directly. By using this app, data can be transmitted bidirectionally between a PLCnext controller and the...

Free

Get it



balenaEngine-DockerForIoT-ARM

Phoenix Contact Deutschland GmbH

NEW | Function Extension

BalenaEngine is an OCI (including Docker) compatible container runtime for embedded systems and is based on the Moby project. Known issues: Will be found in our GitHub Project. Support: You can get ...

Free

Get it



balenaEngine-DockerForIoT-x86

Phoenix Contact Deutschland GmbH

NEW | Function Extension

BalenaEngine is an OCI (including Docker) compatible container runtime for embedded systems and is based on the Moby project. Known issues: Will be found in our GitHub Project. Support: You can get ...

Free

Get it



CDPIO for PLCnext

CDP Technologies AS

NEW | Function Extension

CDP Studio is a comprehensive software development tool to build industrial control, automation and edge systems. The CDPIO app enables CDP Studio applications to use the analog and digital I/O modu...

Free

Get it



connect-Gateway HTTP Trial

verlinked GmbH

NEW | Function Extension

An HTTP client and server for your PLCnext. Collect data from variables of your PLCnext project and send them via HTTP to any Web server. Or provide a RESTful Web interface to the realtime data of you...

Free

Get it



connect-Gateway MQTT Trial

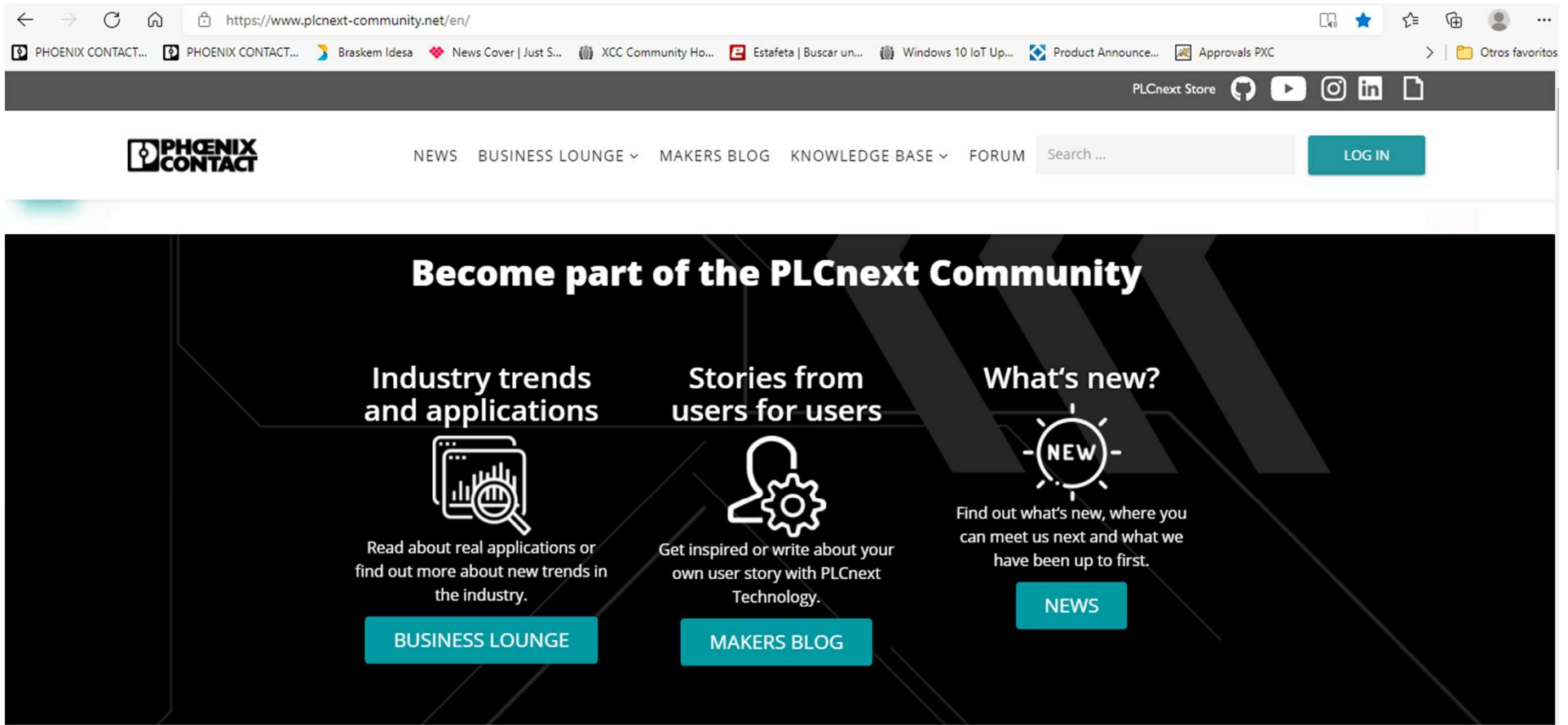
verlinked GmbH

NEW | Function Extension

An MQTT client and Broker for your PLCnext. Collect data from variables of your PLCnext project and send them via MQTT to any MQTT Broker. Or provide a MQTT Broker with realtime data of your PLCnext p...

Free

Get it



PLCnext Community

MQTT examples

PLCnext Store > IIoT Library



IIoT_Library

Phoenix Contact GmbH & Co. KG



Download

NEW | Library

This software library contains libraries and function blocks for "IIoT communication". With this library, PLCnext controllers can establish direct communication with cloud service providers. (Azure, A...

Free

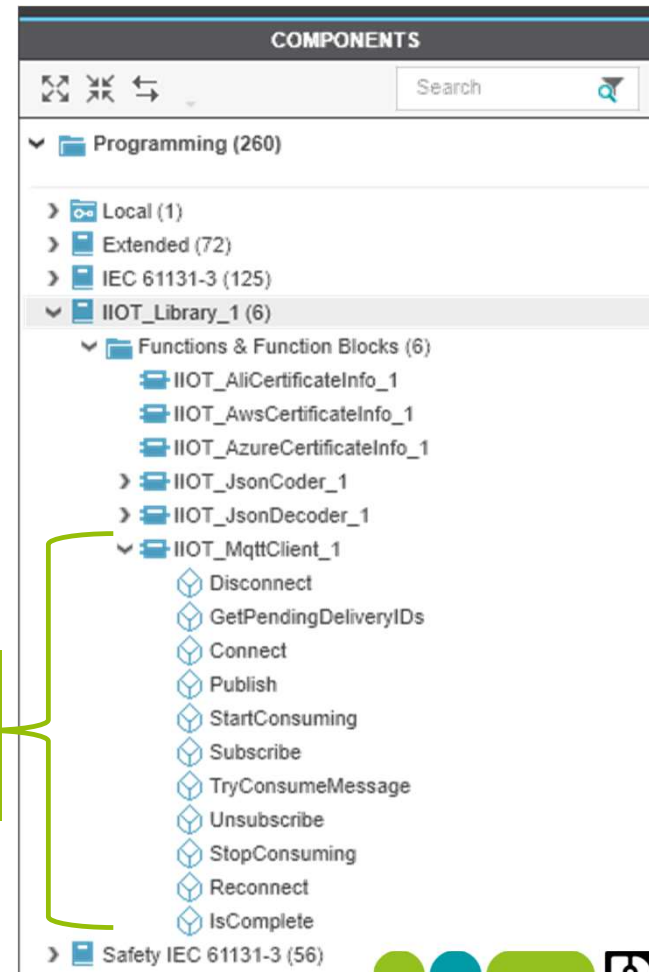


<https://www.plcnextstore.com/#/878>

MQTT examples


IEC61131 MQTT library

**MQTT function block
with different methods**



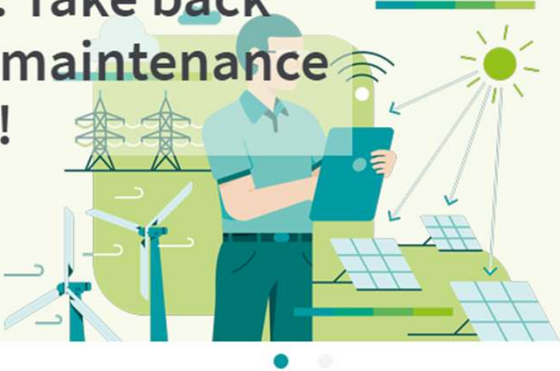
← → ↻ 🏠 <https://proficloud.io> ☆ ⚙️ 👤 ...

🔍 PHOENIX CONTACT... 🔍 PHOENIX CONTACT... 🌐 Braskem Idesa 📰 News Cover | Just S... 🏭 XCC Community Ho... 📄 Estafeta | Buscar un... 🖱️ Windows 10 IoT Up... 📄 Product Announce... 📄 Approvals PXC > 📁 Otros favoritos

 **Proficloud.io** Proficloud.io Platform Smart Services ▼ Service Store FAQs News Getting Started E-Learnings ▼ About us 🔍 [LOGIN](#)
[Register now](#)

Smart Services: Take back control of your maintenance and operations!

[LEARN MORE](#)



Proficloud.io: Your ticket to Industrial IoT

PROFICLOUD.IO

- What should I know? WrapUp - Smart Services on Proficloud.io
- Use cases for our Smart Services
- How to book a Smart Service
- Closing

Get to know Proficloud.io

Every Smart Service starts with a Smart Device



Smart Networking

- Smart Devices are ready for sending data to Proficloud.io – safely and easily.
- Smart Services from Phoenix Contact are simple and standardized Software-as-a-Service solutions.



Smart Management

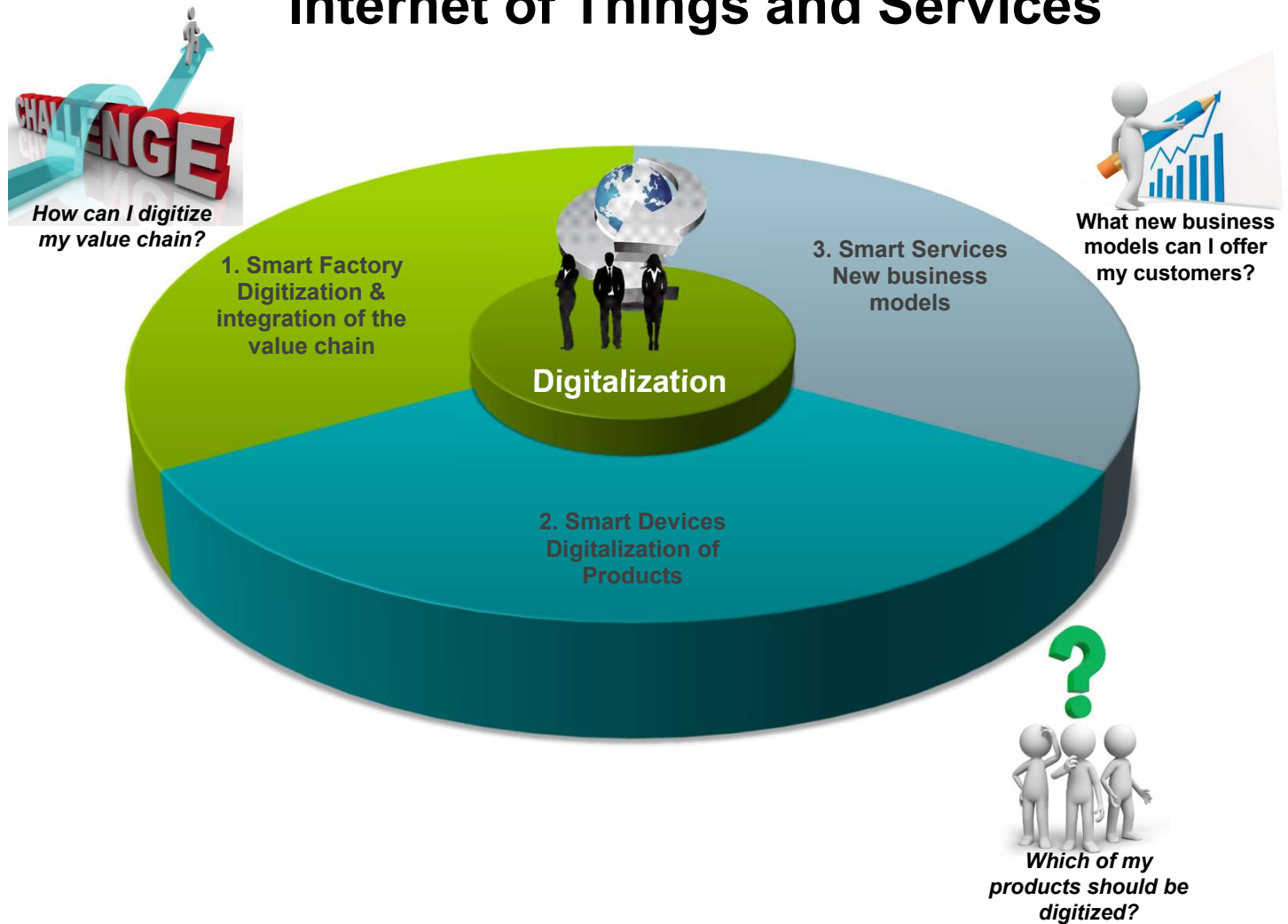
The Smart Service portfolio on Proficloud.io comprises for example

- | | |
|----------------------------|--------------------------|
| ▪ Secure device management | ▪ State of health |
| ▪ Real-time measurement | ▪ Predictive maintenance |
| ▪ Cloud-based analysis | ▪ Energy management |

**Digitalization
affects the entire
economy:**

**Every company
should ask itself
3 questions**

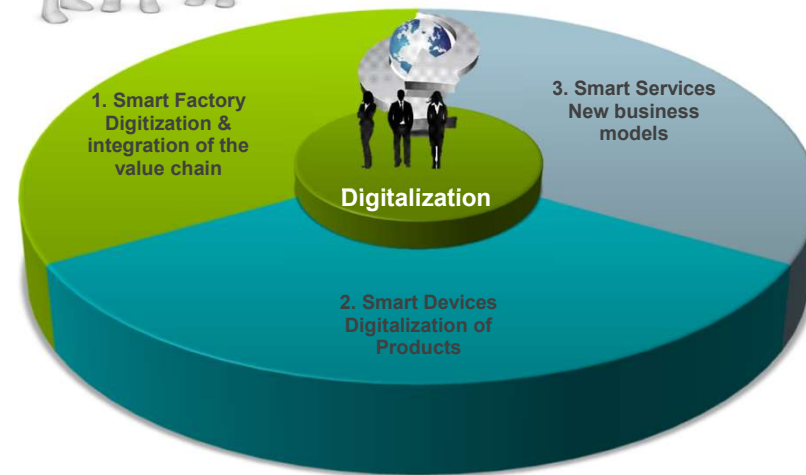
Internet of Things and Services



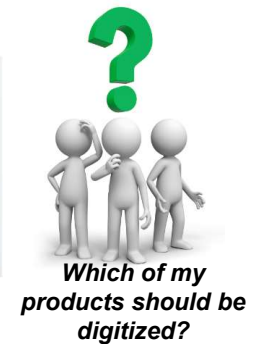
**Digitalization
affects the entire
economy:**

**Every company
should ask itself
3 questions**

Internet of Things and Services



Device Management Service	Time Series Data Service	Insights/Analytics Service
Free of Charge	Starts at € 100	Starts at € 2500
✓ Monitoring of systems and their status	✓ 24/7 online data	✓ Assistance system for troubleshooting and maintenance
✓ Location of devices and their status	✓ Data for predictive maintenance and other applications	✓ Comprehensive analysis of the plant data
✓ State of health of every device from anywhere	✓ Highly customizable web-based dashboards	✓ Time series detection of anomalies and trends
		✓ Real-time dashboards



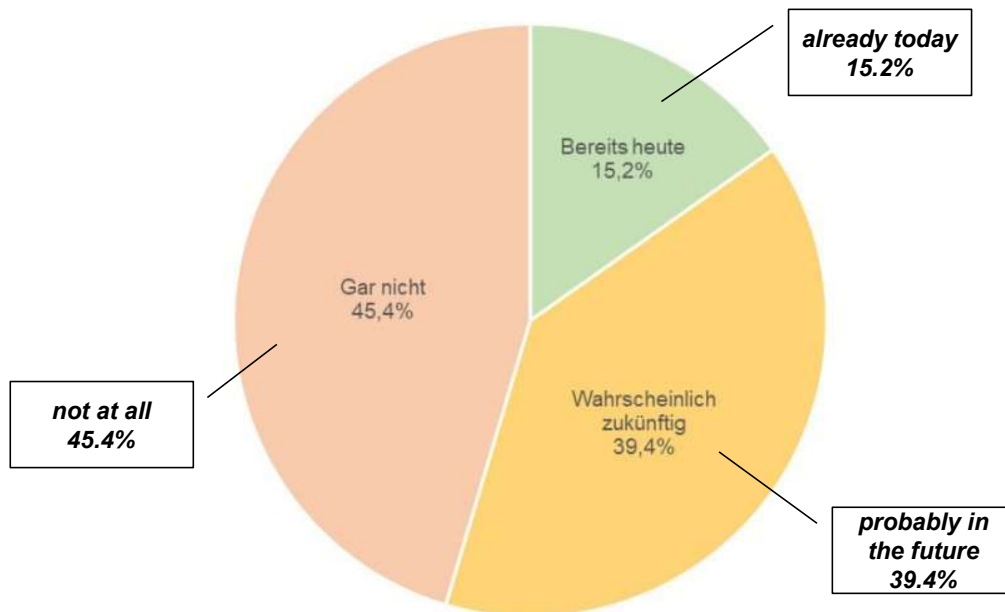
**Digitalization
affects the entire
economy:**

**Machine Builders
in Germany**

Internet of Things and Services

MICHAELA
ROTHHOFT
Marktstudie
Industrielle
Kommunikation

Inwieweit sind Ihre Maschinen/Anlagen an eine Cloud
angebunden?



To what extent are your machines / systems connected to a cloud?

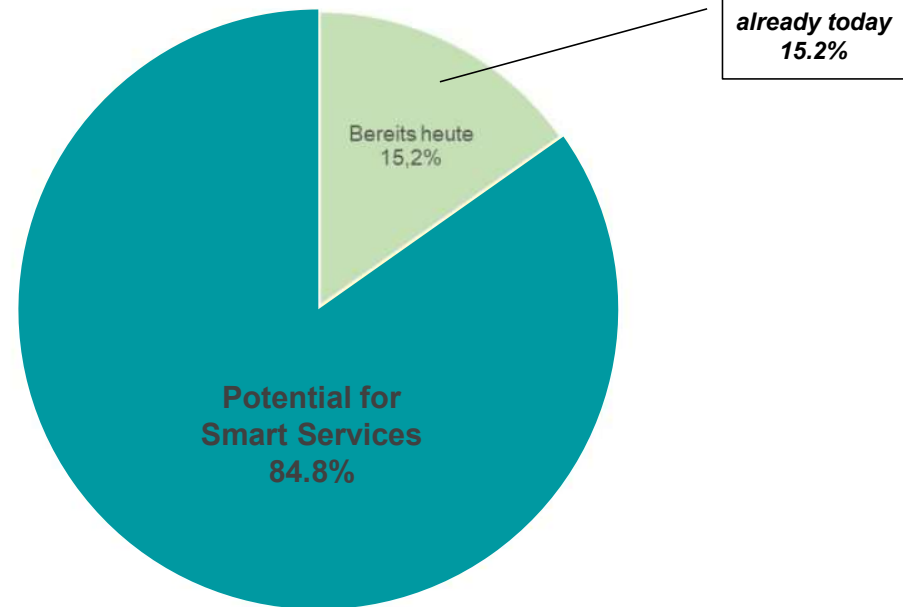
**Digitalization
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Internet of Things and Services

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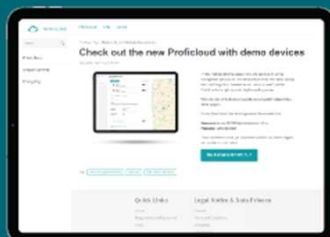
**Digitalization
affects the entire
economy:**

Think about

Internet of Things and Services

- **Cloud Technology:** Hardware and software resources and services are made available over the Internet.
- **Digitization is more than the application of technologies:** ... business models, cultures, people, ...
- **Internet of Things:** Products that are made smarter through sensors and network technology. They lead to the Internet of Things.
- **Automation of IT:** Intelligent systems that can perform tasks - also based on artificial intelligence (AI).
- **Robotics:** More powerful robots that drive automation thanks to AI and improved dexterity.
- **Mobile Internet:** Expansion of structures in order to increase networking and reduce prices.

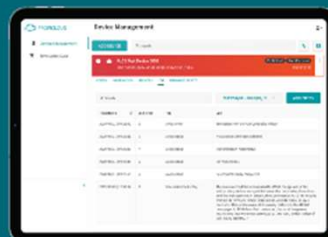
The introduction to Proficloud.io



Proficloud.io stands for a simple, usable possibility to realise industrial applications in the cloud. For us and our customers, data security and high usability are in the focus.

[ACCESS FREE COURSES](#)

Core functionality within Proficloud.io



The Device Management Service is one of the linchpins of Proficloud.io – so of course you will find some lessons for this service as well.

[ACCESS FREE COURSES](#)

The Time Series Data Service



Visualising incoming data points, setting up customised dashboards and setting up alerts – you will learn all this in the Time Series Data Service lessons.

[ACCESS FREE COURSES](#)

Agenda

- Welcome and Introduction
- What should I know? WrapUp - Smart Services on Proficloud.io
- **Use cases for our Smart Services**
- How to book a Smart Service
- Closing

E-PMM 2021 | Get to know Proficloud.io

Use cases for our Smart Services



Stefan Jörres, Christian Sander
E-PMM 2021 | Use Case:
Telefonica and the Smart Service "ImpulseAnalytics"



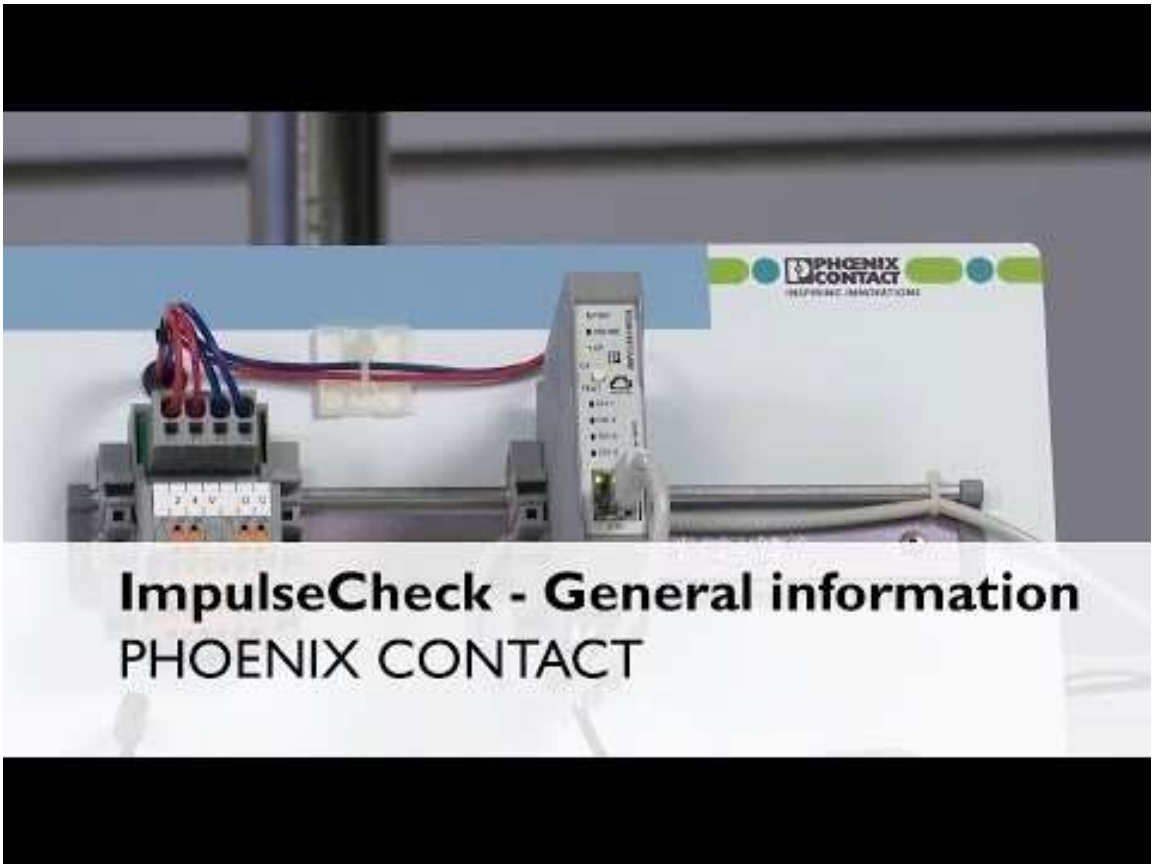
PHOENIX CONTACT Smart Business GmbH

Robert Bieber, Merryl DMello, Florian Jacob
E-PMM 2021 | Use Case: Machine Manager and the Smart Service "Time Series Data Service"



PHOENIX CONTACT Smart Business GmbH

Impulse Check



Digital Solutions

EMpro



Digital Solutions

EMpro



Digital Solutions

EMpro

- Equipos EMpro



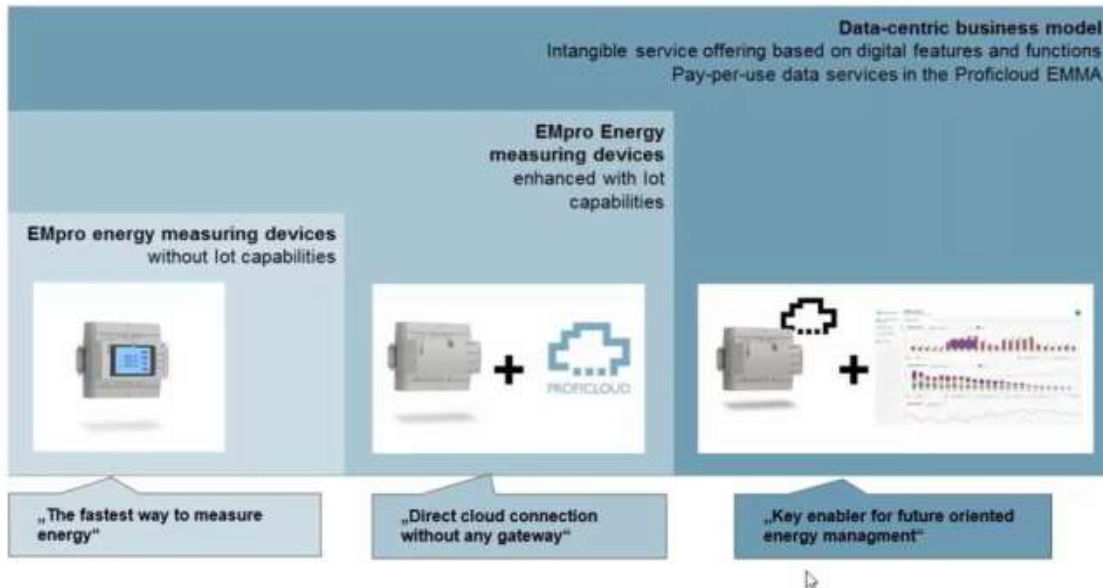
Digital Solutions

EMpro



EMpro PROFICLOUD

The EMpro Evolution



EMMA Energy Monitoring Management Analytics



PROFICLOUD

Proficloud

Service Store

FAQ

News



The cloud solution for industrial purposes: Proficloud.io

Use the many advantages of the Proficloud, whether for your automation solutions or to monitor your machinery. Get an individual notification or simply check the health status of your Phoenix Contact hardware.

SIGN UP

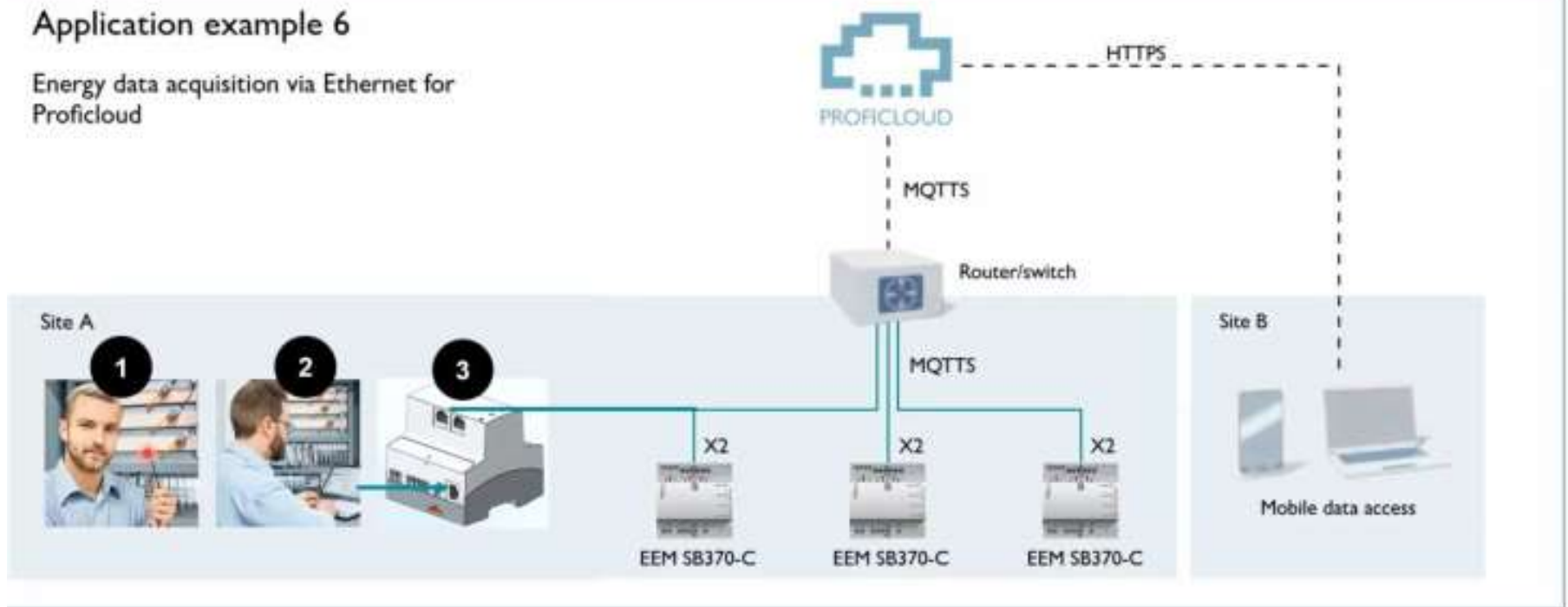
Welcome back!

LOG IN

Emprow in PROFICLOUD

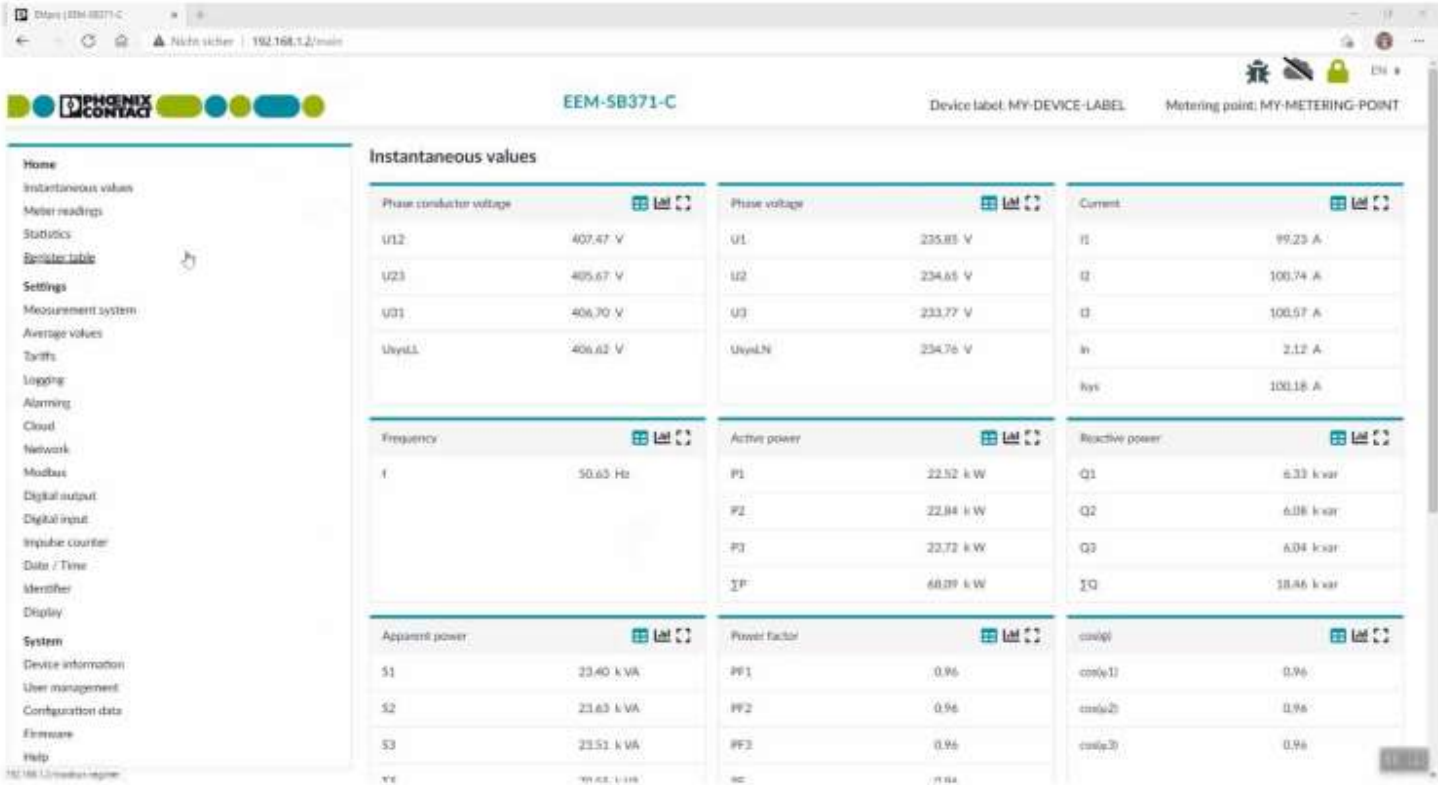
Application example 6


Energy data acquisition via Ethernet for Proficloud



Proficloud

Empro EEM SB371-C





Device Management Service

Device Overview

ADD DEVICE

STATUS

PH 1 Machine Park 1


Online77c8f486-eded-4581-b928-9f76730b6526EEM-SB370-C

Device 3

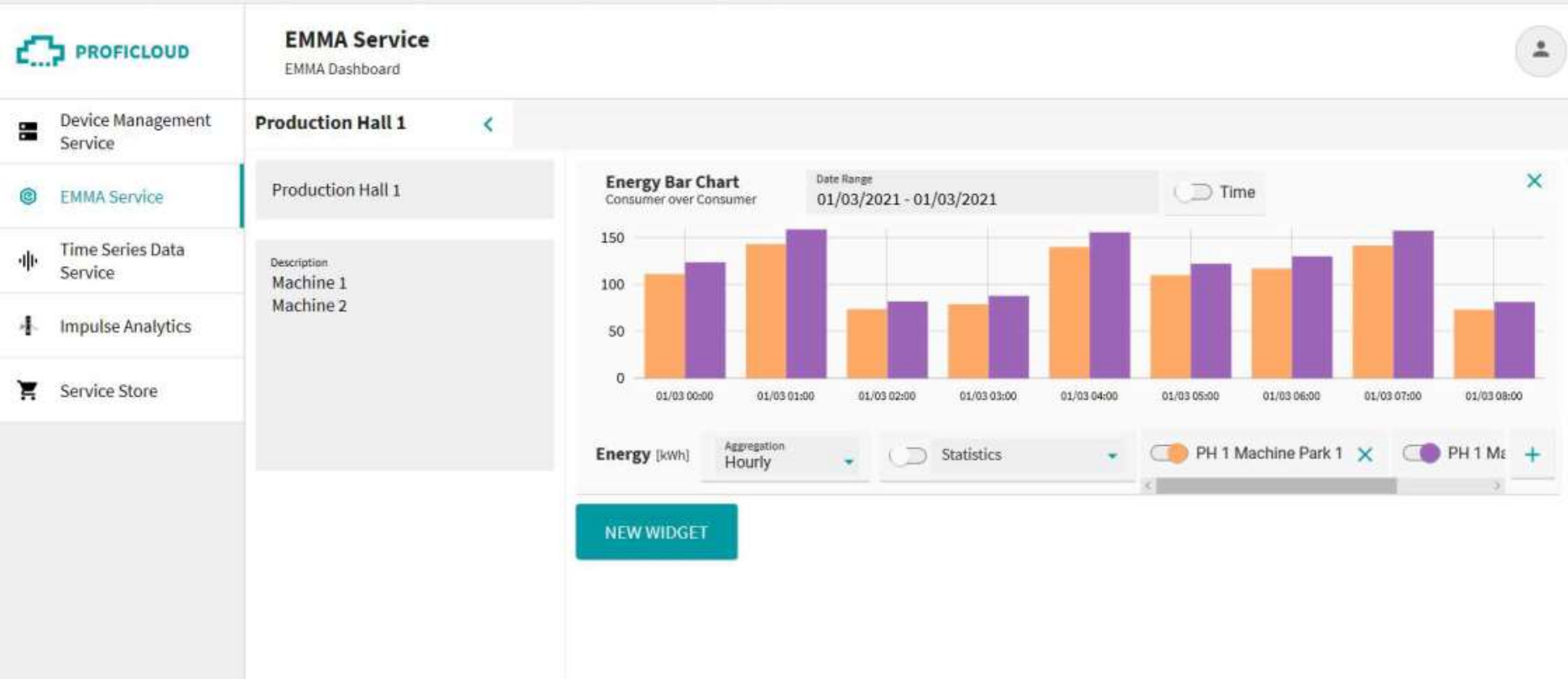
Online2ae5e0d6-8bc7-4398-80be-f97bf1be0a27EEM-SB370-C

PH 1 Machine Park 2

Online690a6911-30f9-4def-98a0-d7b1a0e96f3bEEM-SB370-C



EMMA Service



EMMA Service



EMMA Service

EMMA Dashboard

Production Hall 1



Active power (kW)

Statistics

PH 1 Machine Park 1

PH 1 Machine Park 2

Consumer

PH 1 Machine Pa...

PH 1 Machine Pa...

min (kW)

0,00349

0,00336

all time max (kW)

0,22

0,22

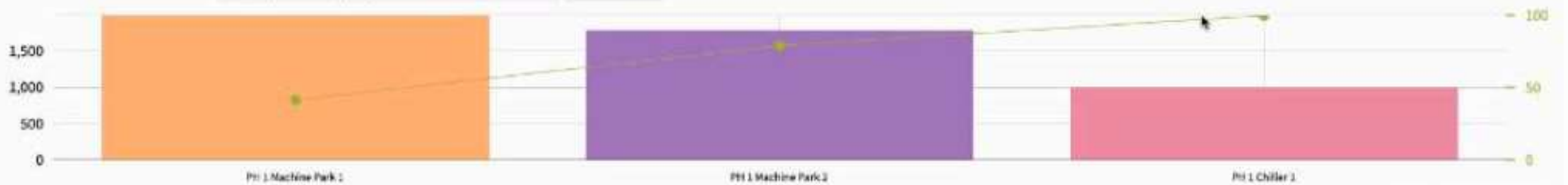
Energy Pareto Chart

Ranked by Consumer

Date Range

01/03/2021 - 01/03/2021

Time



Energy Daily (kWh)

PH 1 Machine Park 1

PH 1 Machine Park 2

PH 1 Chiller 1

Cumulative Percentage [%]
100% = 4.762 kWh

NEW WIDGET

Get to know Proficloud.io

- Welcome and Introduction
- What should I know? WrapUp - Smart Services on Proficloud.io
- Use cases for our Smart Services
- **How to book a Smart Service**
- Closing

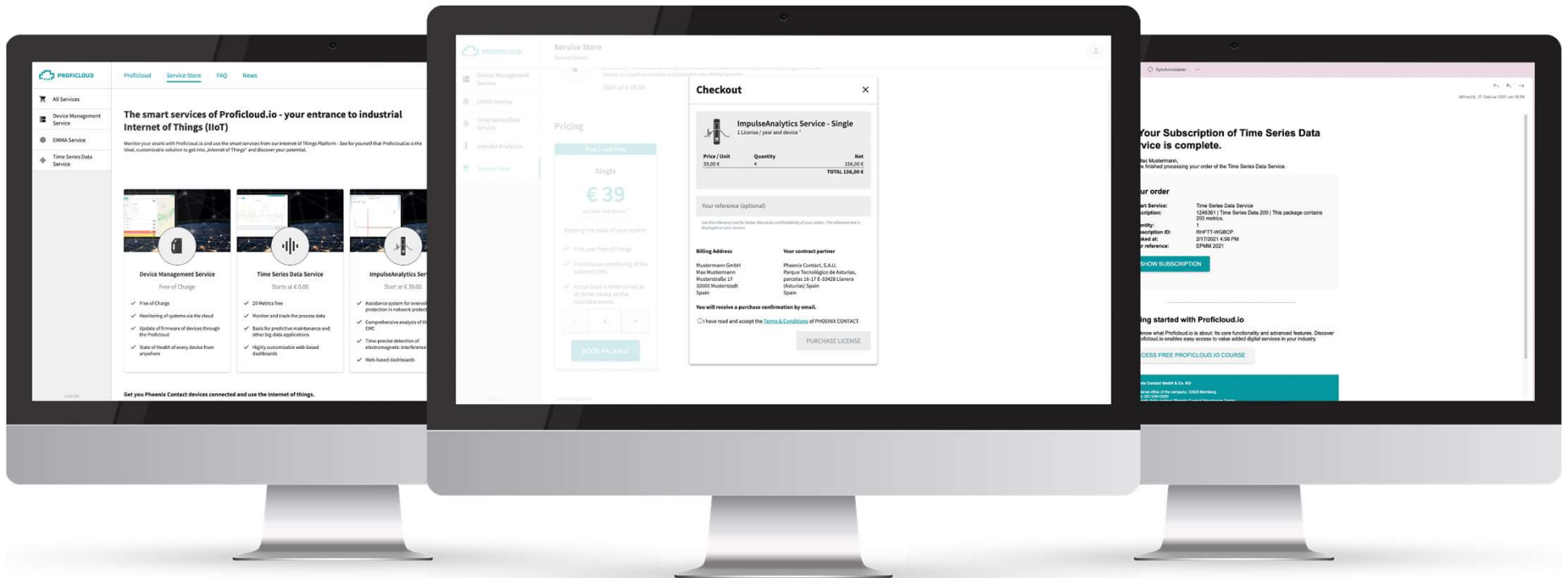
E-PMM 2021 | Get to know Proficloud.io

How to book a Smart Services?



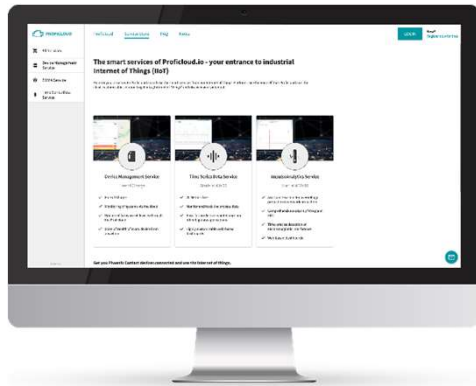
Get to know Proficloud.io

View into the Smart Service Store at Proficloud.io



Get to know Proficloud.io

From booking to the invoice



Customer



PxC Smart Business



PxC Sales Subsidiary



Successful Pilot-
Testing in Q4/2020
with 4 Countries

Get to know Proficloud.io

- Welcome and Introduction
- What should I know? WrapUp - Smart Services on Proficloud.io
- Use cases for our Smart Services
- How to book a Smart Service
- **Closing**

**Smart Services
affect the entire
company –
Phoenix Contact!**

Let's SumUp!

Workshop SB | Get to know Proficloud.io



- Welcome and Introduction
- What should I know? WrapUp - Smart Services on Proficloud.io
- Use cases for our Smart Services – Breakout Session
- How to book a Smart Service

Workshop IF-1 | Smart Service EMMA

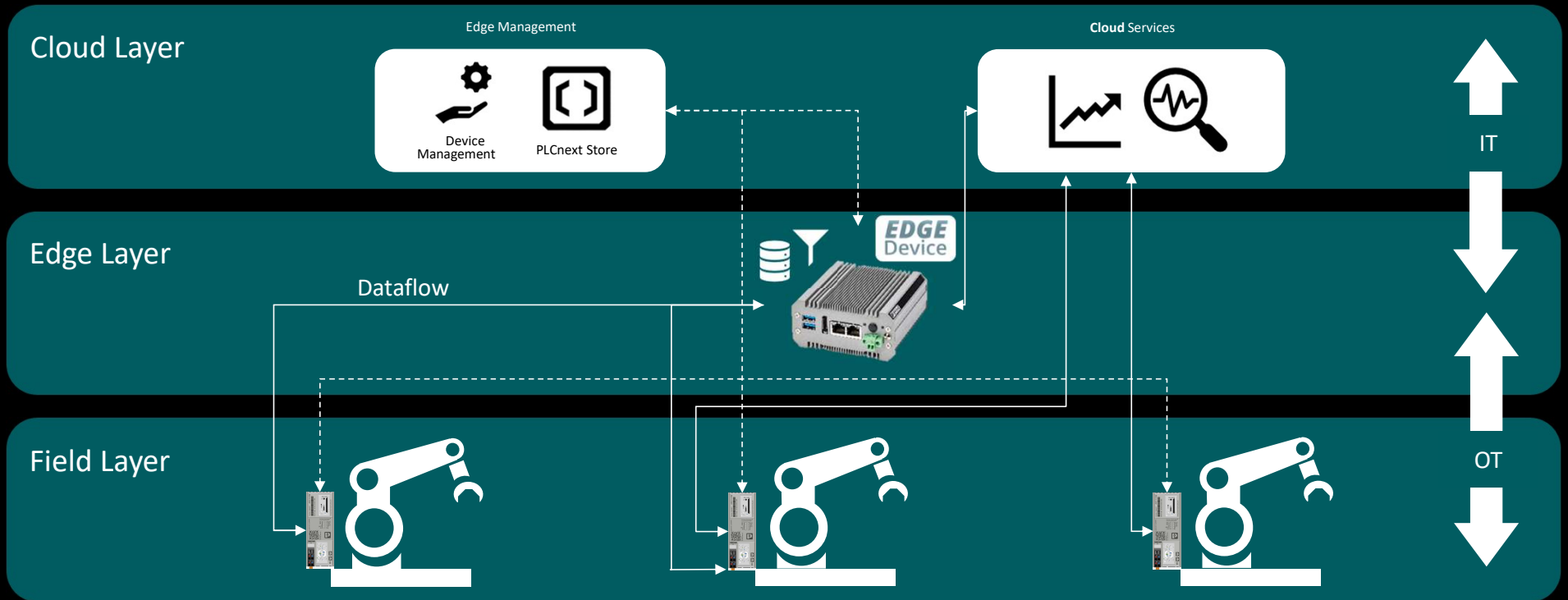


Workshop BDM-1 | Machine Building



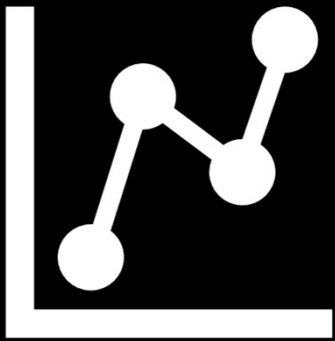
PLCnext Control

PLCnext Control for Edge Computing

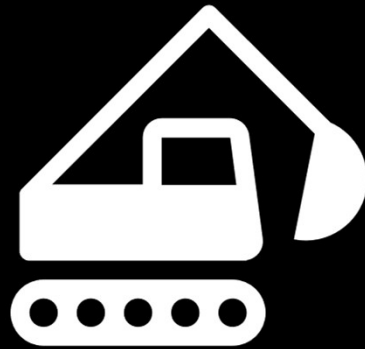


Application Example

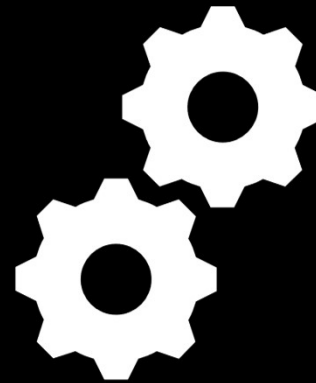
USE CASES



Downsampling data to
reduce network traffic.
Local processing of data
(mathematical functions)



Autonomous driving
or autonomous
transport systems

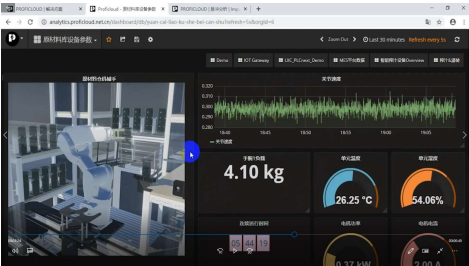


Predictive
maintenance of
machines



Quality assurance in
production

Smart Services



Video ALIBABA Cloud PXC China



Re-Lanzamiento Sistema Cloud Industrial: PROFICLOUD.IO