

17-MAY-2022

Connecting to Your Data

More Data from More Sources

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AVEVA

Role of Data in Your Workplace?

No matter where your operational data resides,
AVEVA has the technologies available to collect
and store that data

Harnessing the power of information, AI and human insight

Delivering world-class, end-to-end industrial software

AVEVA's portfolio of industrial software to optimize engineering and operations



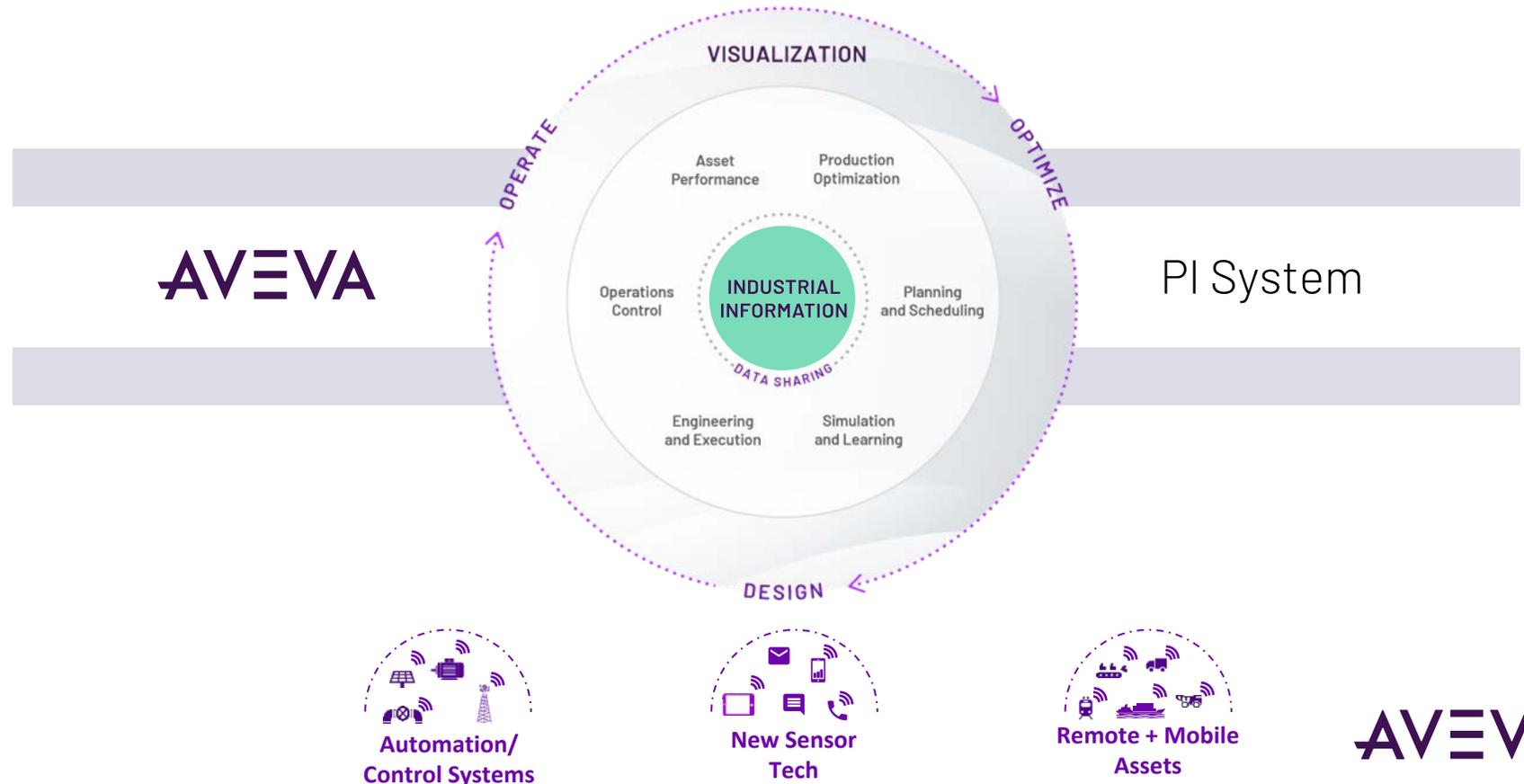
Industry-standard PI System for industrial information management

1 Run **agile, continuously optimized** operations

2 Increase **asset reliability and safety**

3 Provide **rich data and decision support**

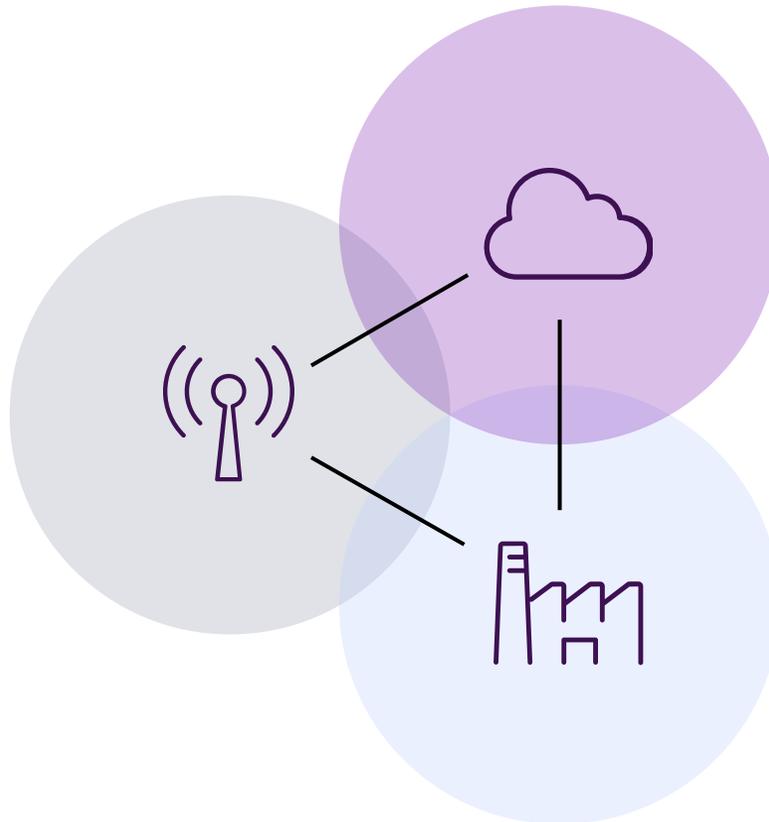
4 Drive the highest levels of **engineering efficiency**



An architecture that supports OT, IT and IIoT use cases

AVEVA PI System spans from edge to plant to cloud

At the edge
Pervasive, real-time data collection from sensors, IIoT devices and remote assets



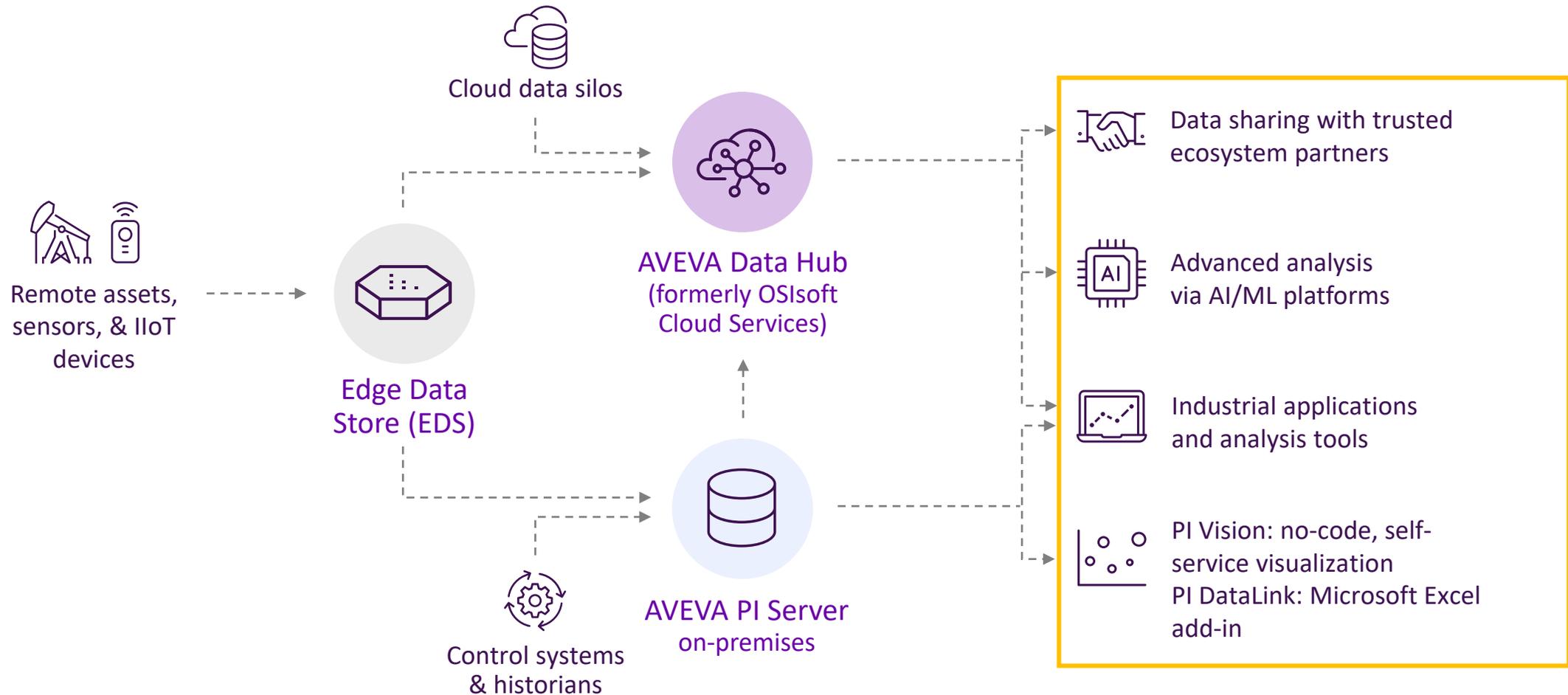
In the cloud

Scalable data services available for a wider array of users, tools and applications

On-premises

Enriched industrial data available 24/7 for critical operations

Data collection enables visibility and informed decision making



The scenario determines your data collection needs



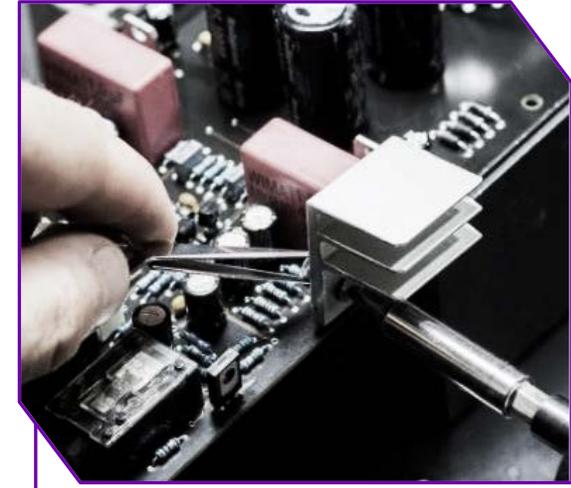
24/7 operations

- Massive volumes of data and high frequency measurements
- Numerous industrial protocols



Remote assets

- Assets prone to losing power or connectivity, or moving out of range
- No local IT support



Custom connectivity

- OS and language independence
- Free from backend implementation



Providing the Backbone for a Stable Data Infrastructure

Empowerment through extensive data collection

Various Protocols

Robust Connectivity

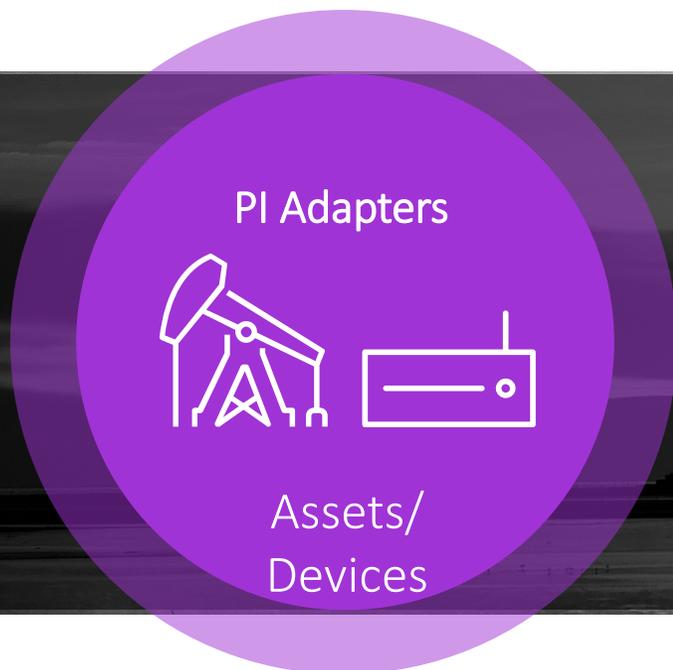
Edge-to-Cloud Coverage

Scenario Dependent

Expanding Feature Set

Data Collection on the Edge and Beyond

PI Adapters



Cross Platform



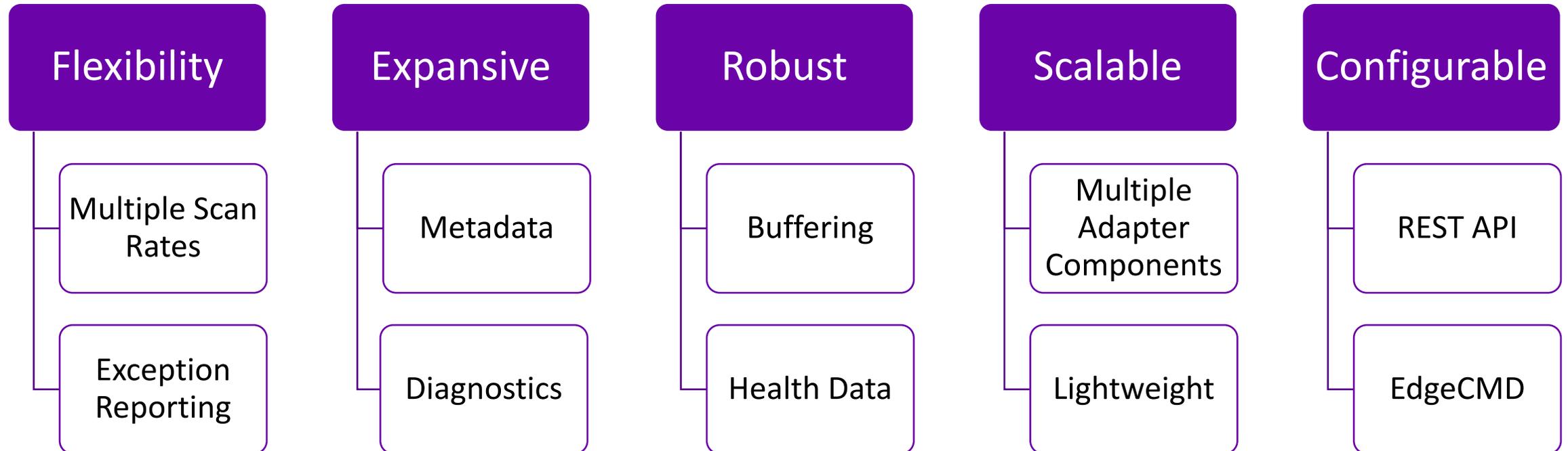
Lightweight Footprint



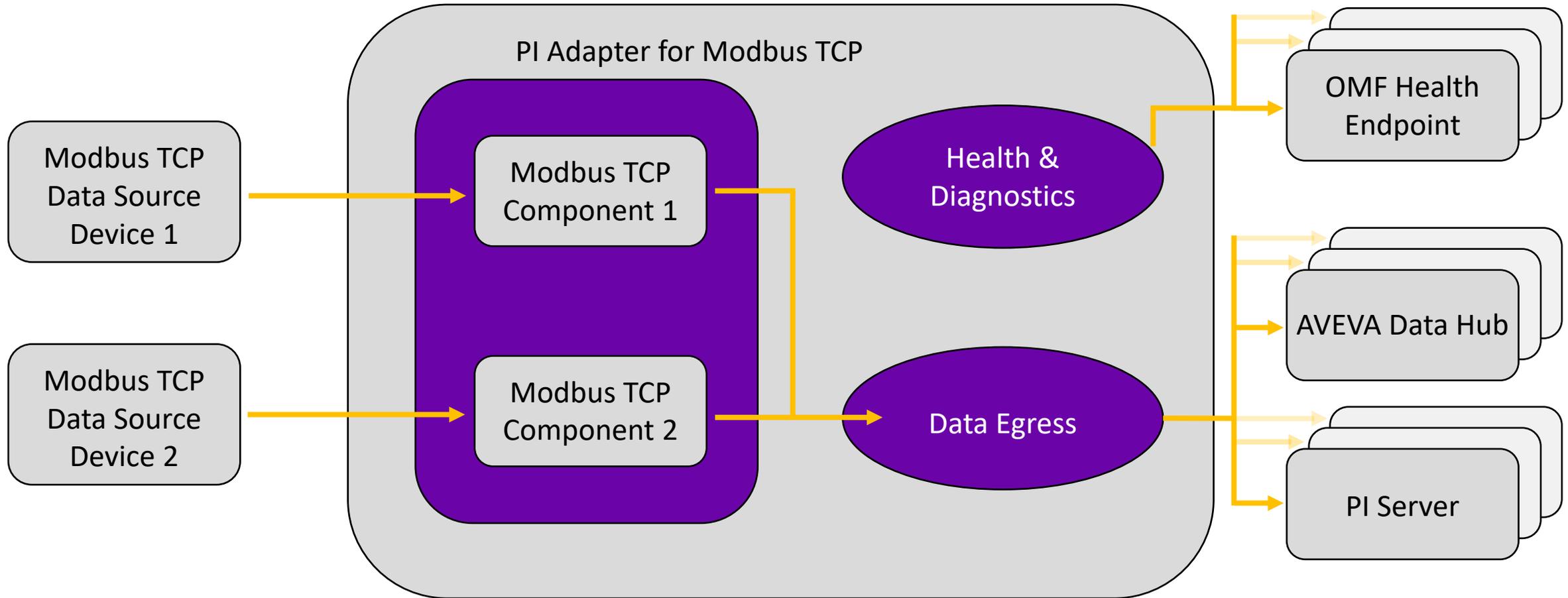
Ready Off-The-Shelf

- Windows and Linux device interoperability
- Scalable architecture
- Connectivity to:
 - Edge Data Store
 - PI Server
 - AVEVA Data Hub

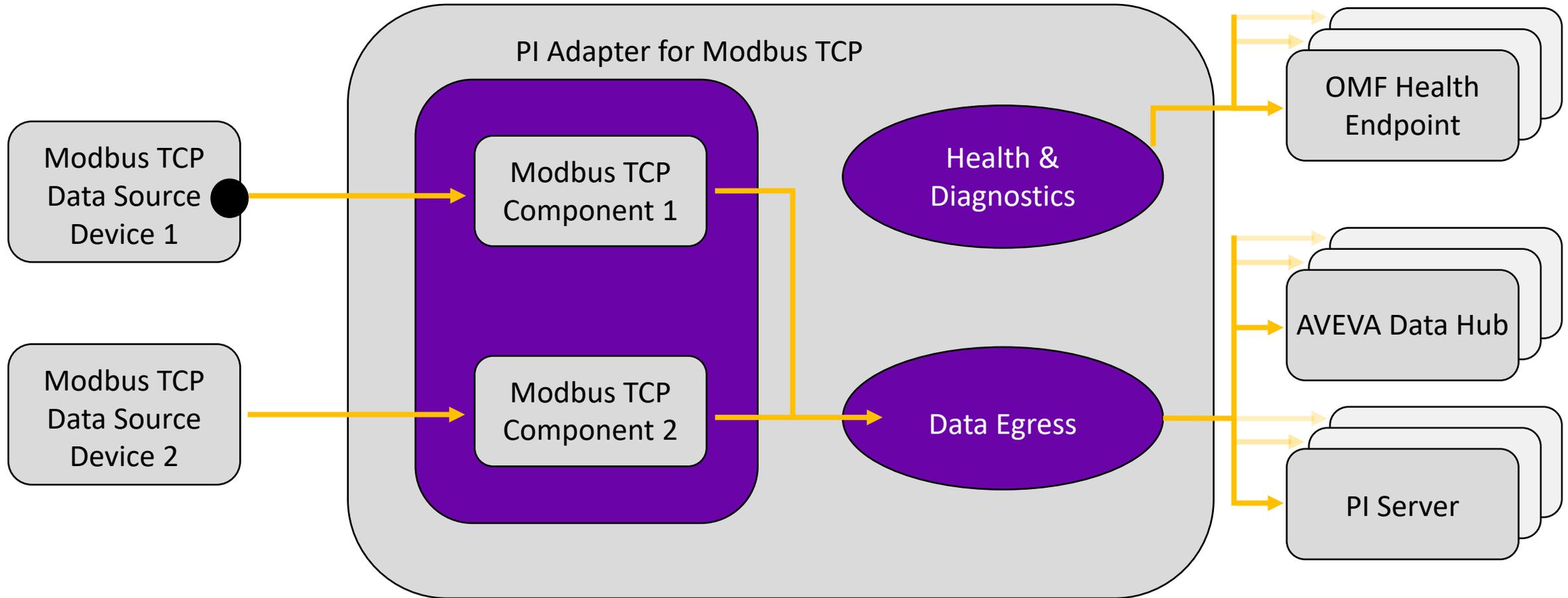
Robust Features that enable consistent data collection



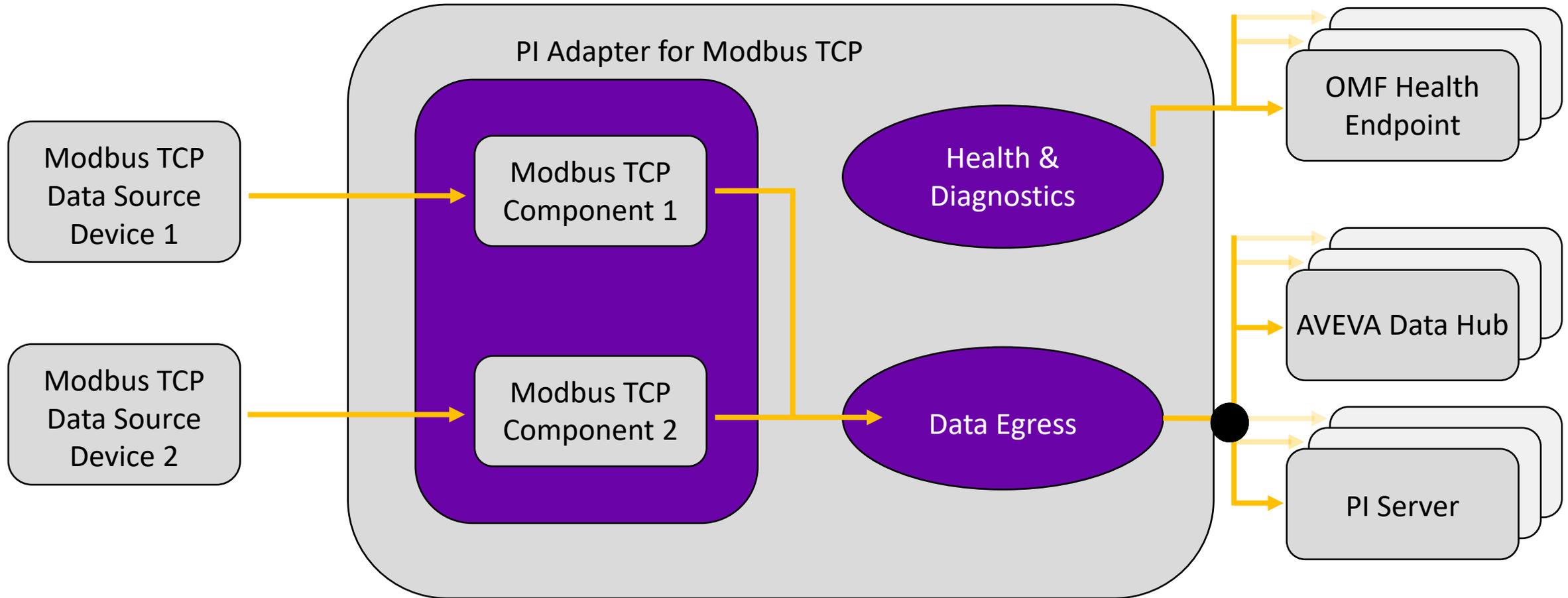
Example Architecture of an Adapter for Modbus TCP



Example Architecture of an Adapter for Modbus TCP



Example Architecture of an Adapter for Modbus TCP



Available PI Adapters

OPC UA

Modbus TCP

DNP3

Azure Event
Hubs

MQTT

Structured
Data Files

BACnet

RDBMS

AVEVA
Historian
2023*

Edge Data Store



Persistent Storage



Self-Healing Capabilities



Application Platform

- Windows and Linux device interoperability
- Intermittent data storage option on remote sites
- Connectivity to:
 - PI Server
 - AVEVA Data Hub

OSIsoft Message Format (OMF)

Develop data acquisition applications

	Contract based message format for data ingress		Connectivity to PI Servers, OSIsoft Cloud Services and Edge Data Store
	Written specification and sample code		Enables app development by end customers, partners, and 3 rd parties
	Supports streaming data & metadata		Independent of operating system & programming language

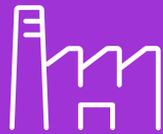
OMF is not:

	A replacement for PI Web API, PI AF SDK or other OSIsoft API		An application development framework
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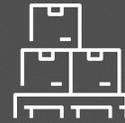
Data Collection for Enterprise Systems

PI Interfaces and PI Connectors

PI Interfaces
PI Connectors



Plants



Ready Off-The-Shelf



Available Now



Secure Architecture



High Performance

PI Interfaces

The Foundation



Most of data collection today

More than 30 years of development and support

Optimized



Optimized for time-series data

Highly configurable for tag data in the PI Data Archive

Diverse



Hundreds of available protocols

Popular: OPC DA, OPC HDA, PI-to-PI, UFL, MODBUS and RDBMS

Updates



PI Interface Releases

Recent	Planned
OPC A&E	RDBMS
Emerson Syncade Batch	Citect
ABB 800xa	OPC DA

PI Connectors

Easy



Streamlined Configuration

Auto create PI Points with rules-based data selection

Automatic



Auto discover data, now and later

PI Connectors monitor the source so you don't have to

Unified



Unified Admin Experience

A one-stop shop to manage data collection across your sources

Updates



PI Connector Releases

Recent	Planned
PI System Connector	OPC UA (Gen 1 + Gen 2)
Wonderware Historian	DCM + Relay

Data Collection Enablement

Critical Decisions

Trustworthy, Reliable Data

Standardization

Diverse, Out-of-the-
box Connectivity

Dependable
Performance

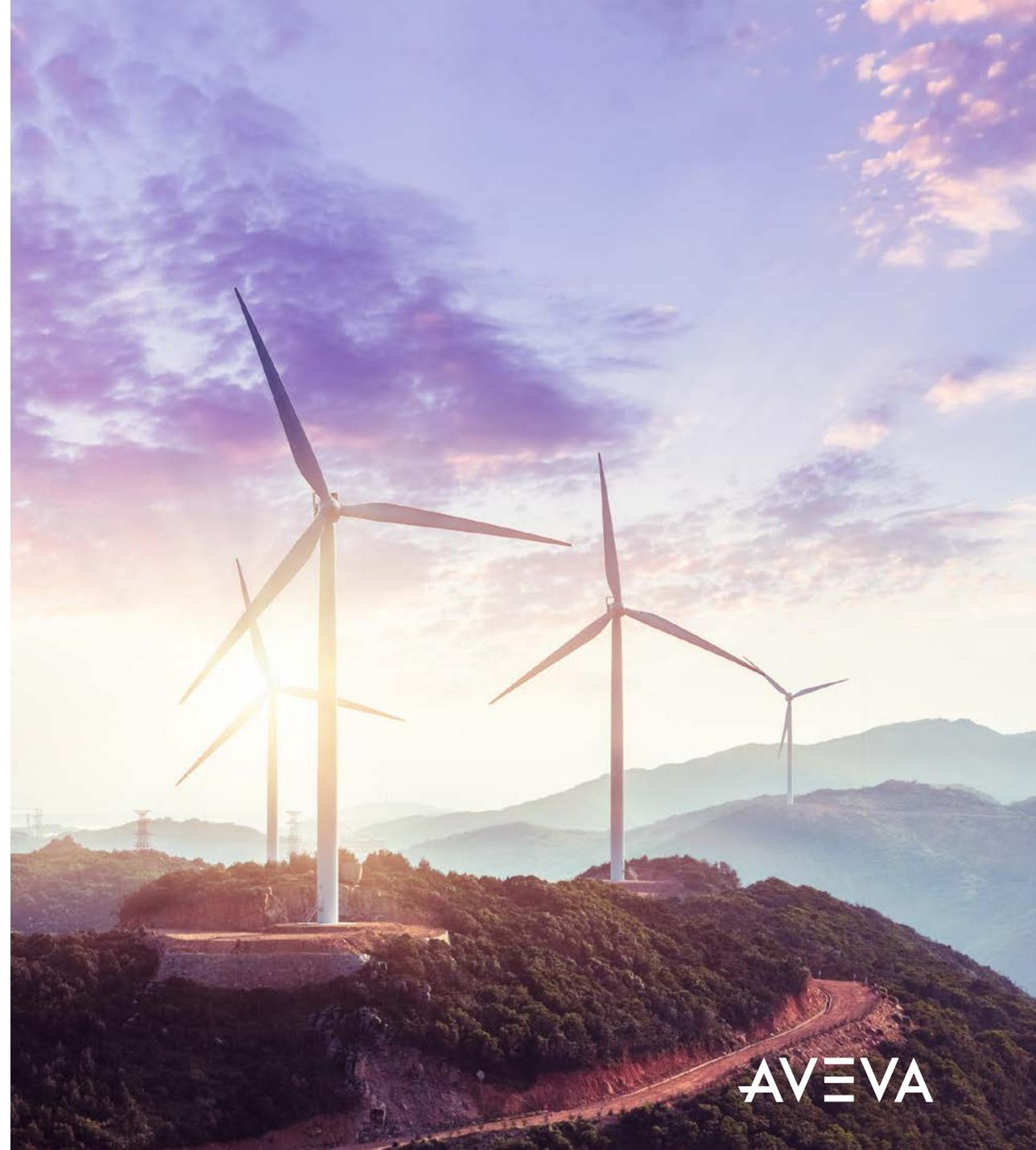
Enhanced Support

Feature Availability Now and Into the Future

Roadmap themes

AVEVA PI System data management solutions

- **Seamless infrastructure**
from edge to cloud
- **Manageable software**
and systems
- **Increased value**
and scope of data



Expansive feature set available at your fingertips

Available off-the-shelf today

Manageable software

Lightweight and Scalable

Reduce installation footprint and optimize resource consumption

Expand Interoperability

Data connectivity options for the PI Server, ADH, and EDS

Deployment Options

Edge and on premises; Linux and Windows Devices

Increased value and scope

New Data Patterns

Secure transport over wireless networks, no VPN required

IoT Standards

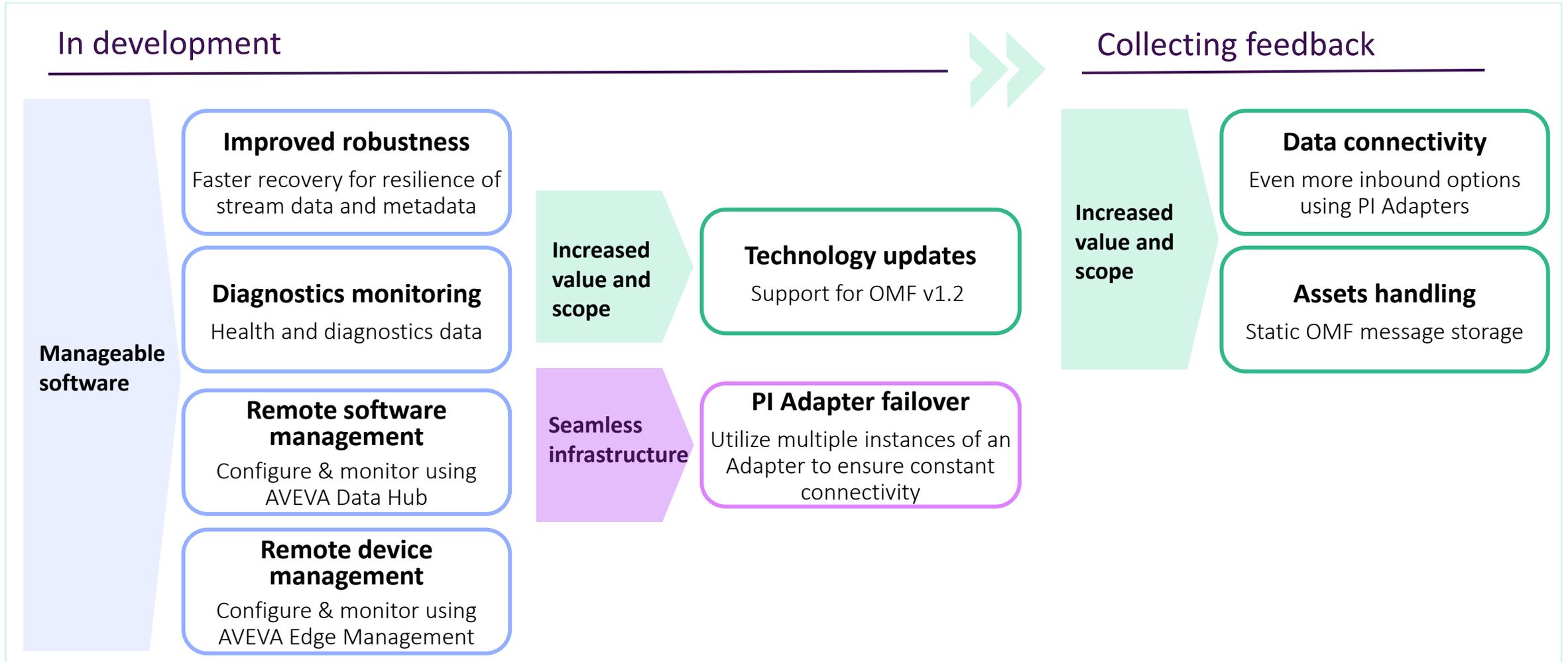
Support for REST services and lightweight protocols

Seamless infrastructure

Protecting your investment

Secure and reliable connectivity to 100s of industrial, batch, and process systems

What's next for Edge Data Store and PI Adapters?

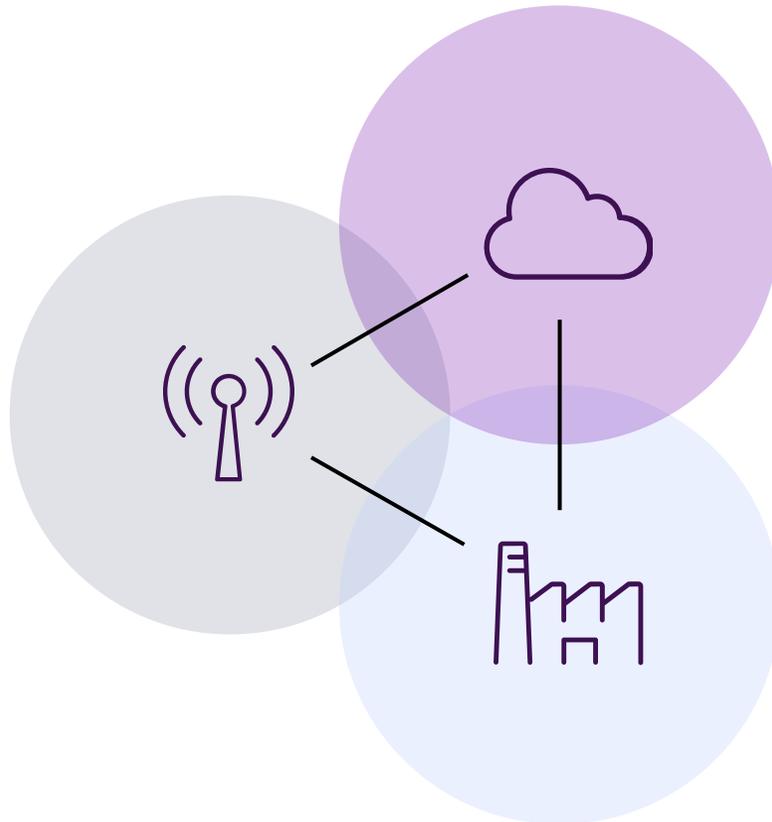


How Does It All Fit Together?

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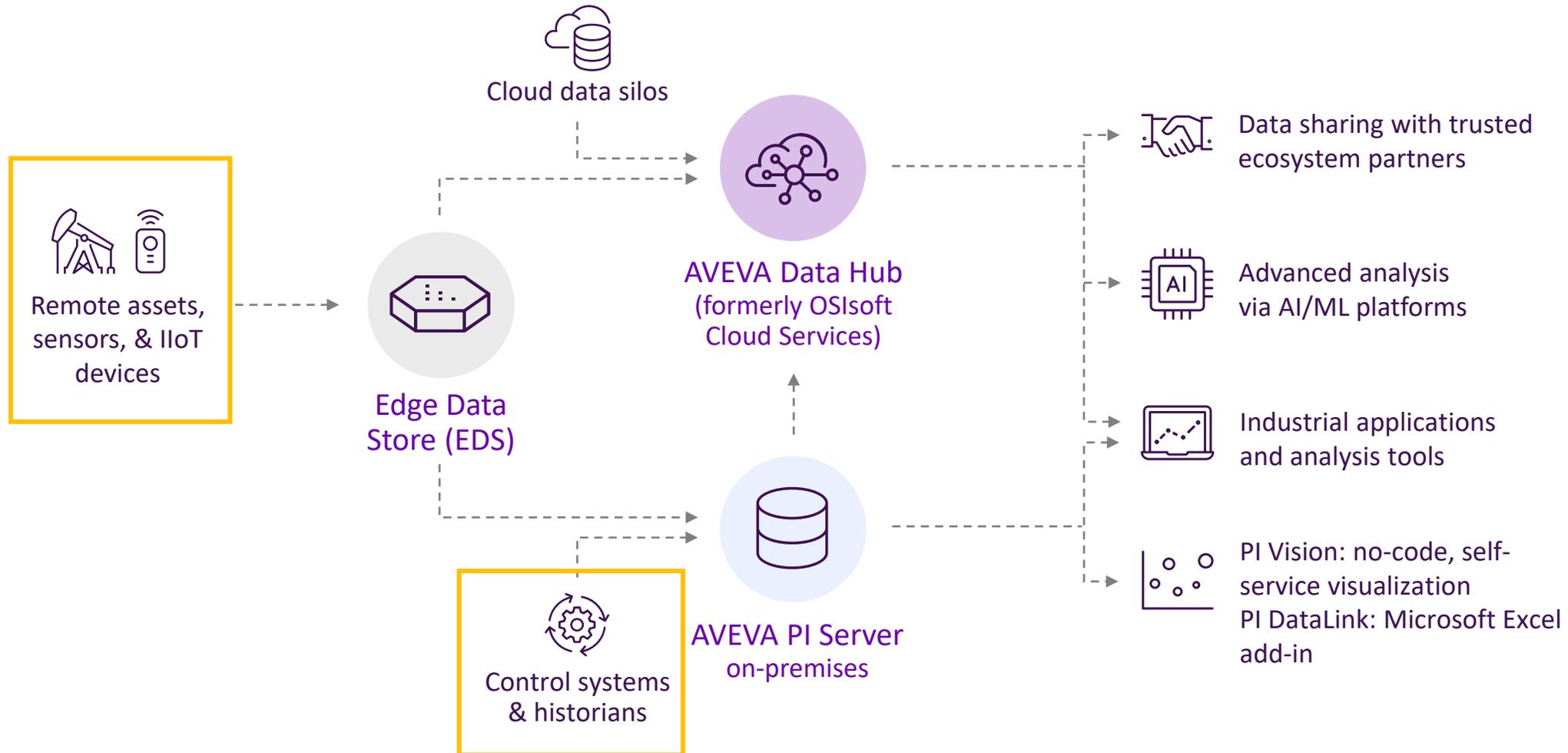
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Role of Data in Your Workplace?

Sessions around Data Collection

Day 1 – Tuesday

- AVEVA Connect vision & roadmap
AVEVA, 13:45 - 14:15
- From the Edge to Supervisory: Operations Control Innovations and Roadmap
AVEVA, 14:25 - 14:55
- Tapping into data from your industrial ecosystem on AVEVA Data Hub
AVEVA, 15:25 - 15:55
- Secure Industrial Information Infrastructure to comply to your IT standards
AVEVA, 16:05 - 16:35
- Lighten your load: How to accelerate time to value and streamline technology upkeep through SaaS
AVEVA, 16:45 - 17:15

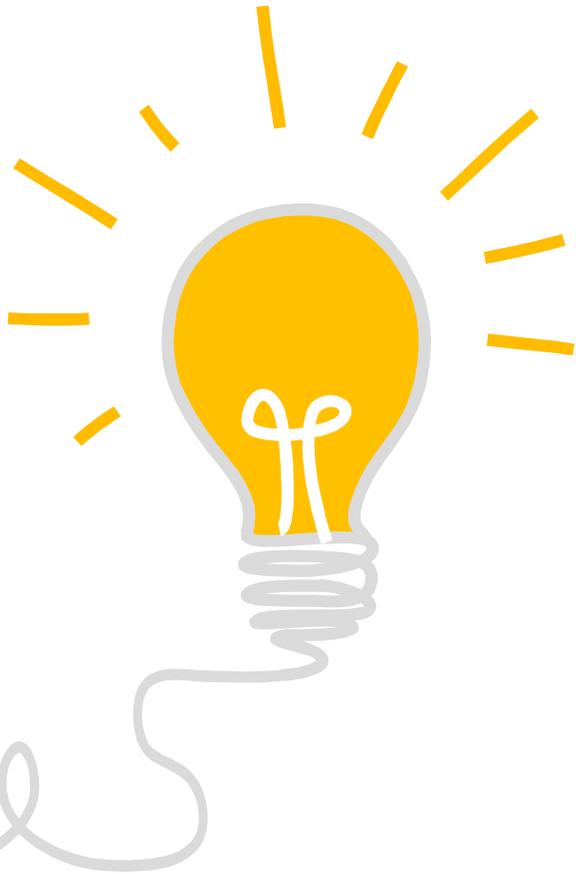
Day 2 – Wednesday

- OSIsoft Cloud Services in discrete manufacturing/value chain approach
HENN GmbH, 08:40 - 09:30
- Analyzing Wind Power data in the AVEVA Data Hub (OCS)
EDP Renewables, 09:45 – 10:15
- Real Time Fleet Analytics with OCS
Industrial Digital Solutions, 11:15 - 11:45
- Leveraging the combination of on-prem PI server and OCS cloud, to feed data analytics and machine learning applications
IMA LIFE, 14:00 - 14:30
- Managing EDS and delivering data pipeline as a service to OCS
Helin Data, 15:30 - 16:00
- EDS Data Store enables Industry 4.0/IoT for SKAN Isolators
SKAN AG, 16:45 - 17:15
- Leveraging on AVEVA Edge/Cloud solutions to satisfy Enel's new data needs
Enel, 16:00 - 16:30

Day 3 – Thursday

- The Data Value Chain: From Edge to Impact
AVEVA, 13:30 - 14:30
- Data Collection On-premises and at the Industrial Edge
AVEVA, 13:30 - 14:30

How do I influence the AVEVA PI System roadmap?



<https://feedback.osisoft.com>

Let us know your product feedback!



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 GRAZIE
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 ПAKMET CИЗГЕ
 GO RAIBH MAITH AGAT
 БЛАГОДАРЯ
 GRACIAS
 ТИ БЛАГОДАРАМ
 ТАК DANKE
 RAHMAT
 HATUR NUHUN
 PAKKA PÉR
 PAXMAT CAҒA
 CÁM ƠN BẠN
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 TERIMA KASIH
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ABOUT AVEVA

AVEVA is a global leader in industrial software, driving digital transformation and sustainability. By connecting the power of information and artificial intelligence with human insight, AVEVA enables teams to use their data to unlock new value. We call this Performance Intelligence. AVEVA's comprehensive portfolio enables more than 20,000 industrial enterprises to engineer smarter, operate better and drive sustainable efficiency. AVEVA supports customers through a trusted ecosystem that includes 5,500 partners and 5,700 certified developers around the world. The company is headquartered in Cambridge, UK, with over 6,500 employees and 90 offices in over 40 countries.

Learn more at www.aveva.com

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