

NOVEMBER 2022

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# On your marks, get set, unleash your Operational Data in the Cloud!

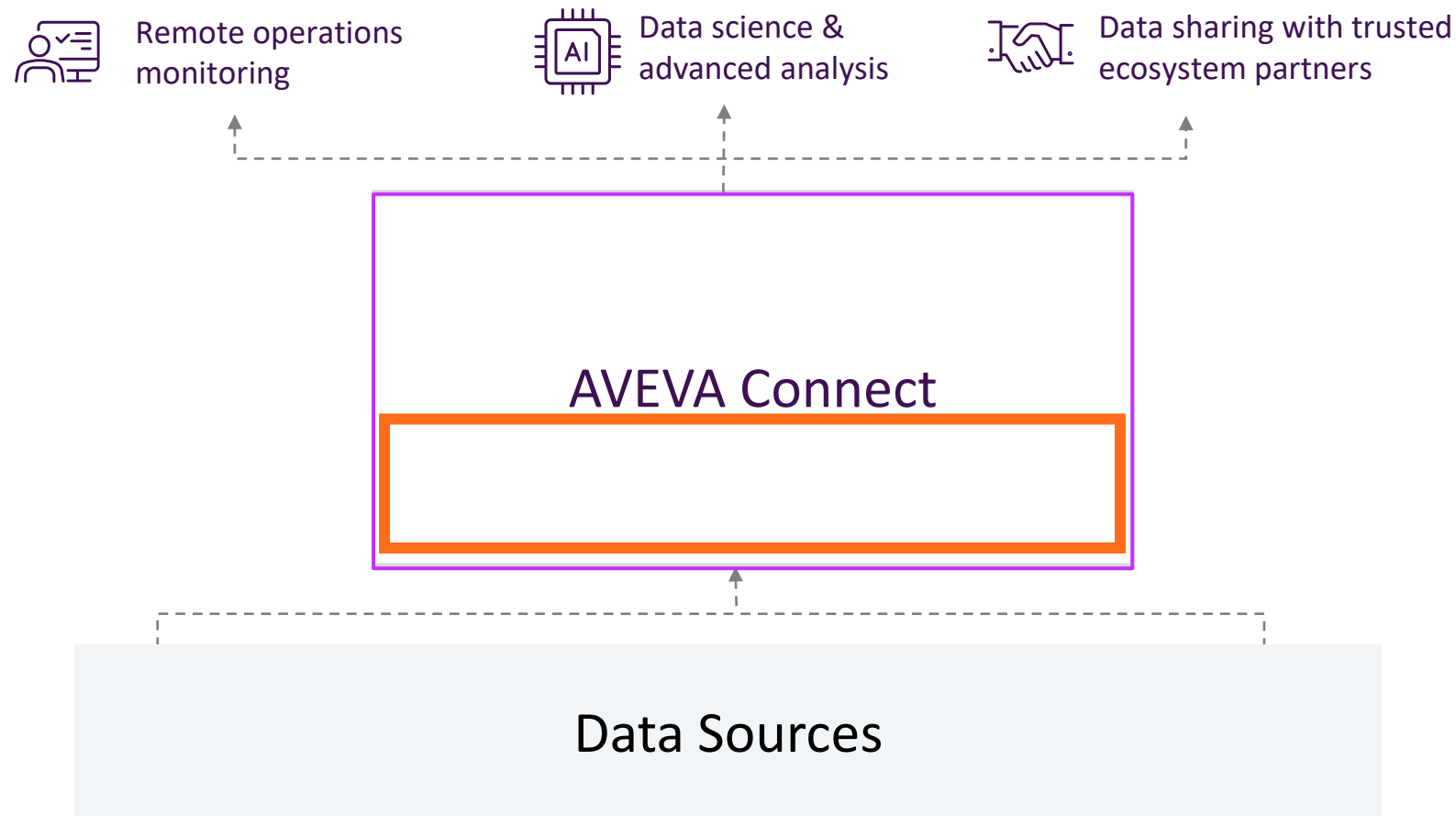
Janelle Minich, Jiyeon Hwang

**AVEVA**

# AVEVA Connect?

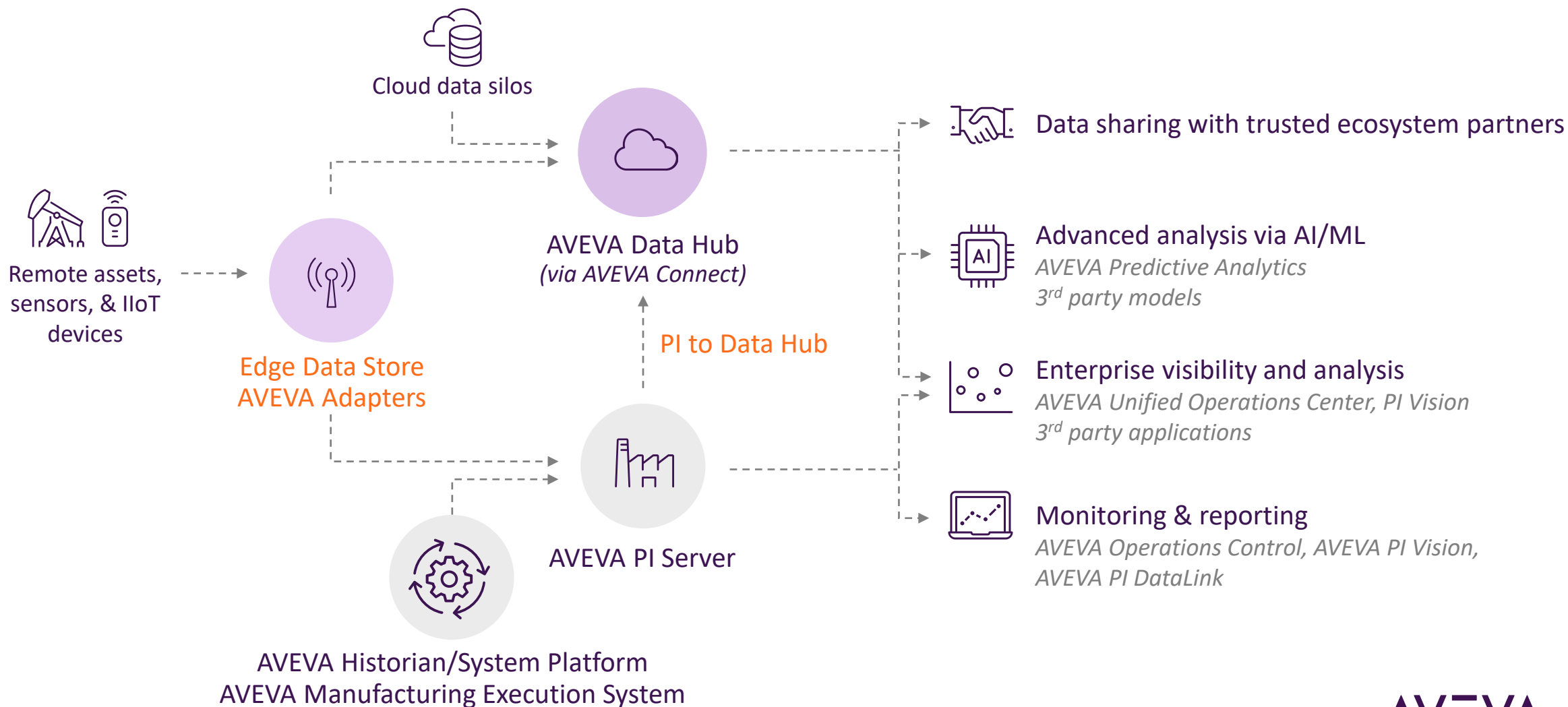
# The Power of AVEVA™ Connect

AVEVA Connect enables a hybrid data architecture through cloud offerings

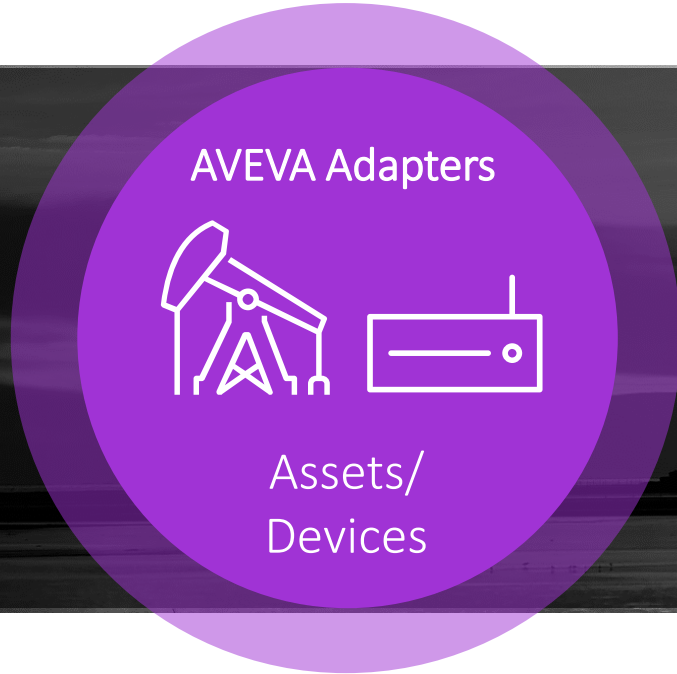


# How to get data into AVEVA Data Hub?

# Bridging engineering, operations, and business domains



# AVEVA Adapters



Cross Platform



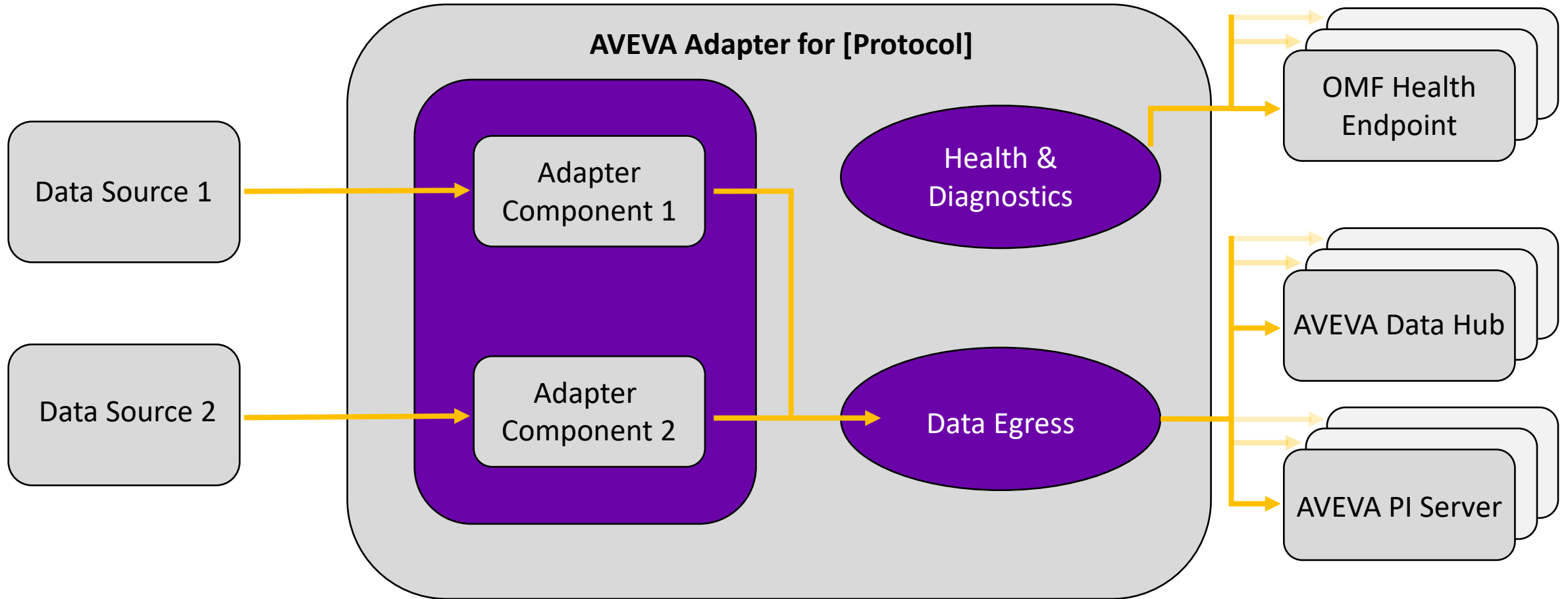
Lightweight Footprint



Ready Off-The-Shelf

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

# Example Architecture of an AVEVA Adapter



# Available AVEVA Adapters

OPC UA

Azure  
Event Hubs

BACnet

Modbus  
TCP

MQTT

RDBMS

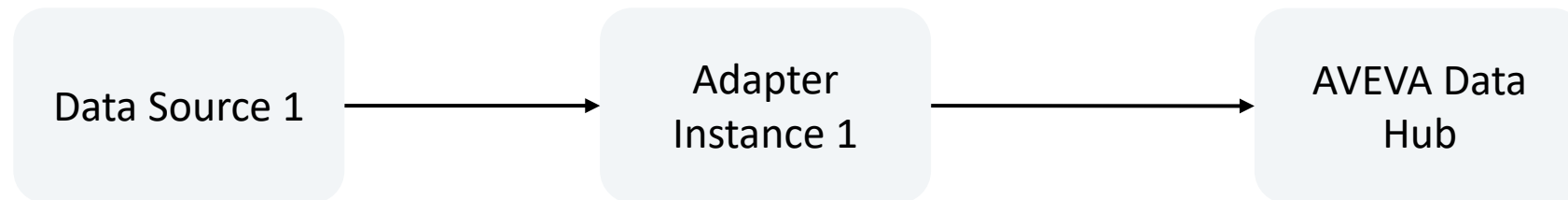
DNP3

Structured  
Data Files



# New Feature for Adapters - Failover

## Pre-Failover Architecture (Simplified Diagram)

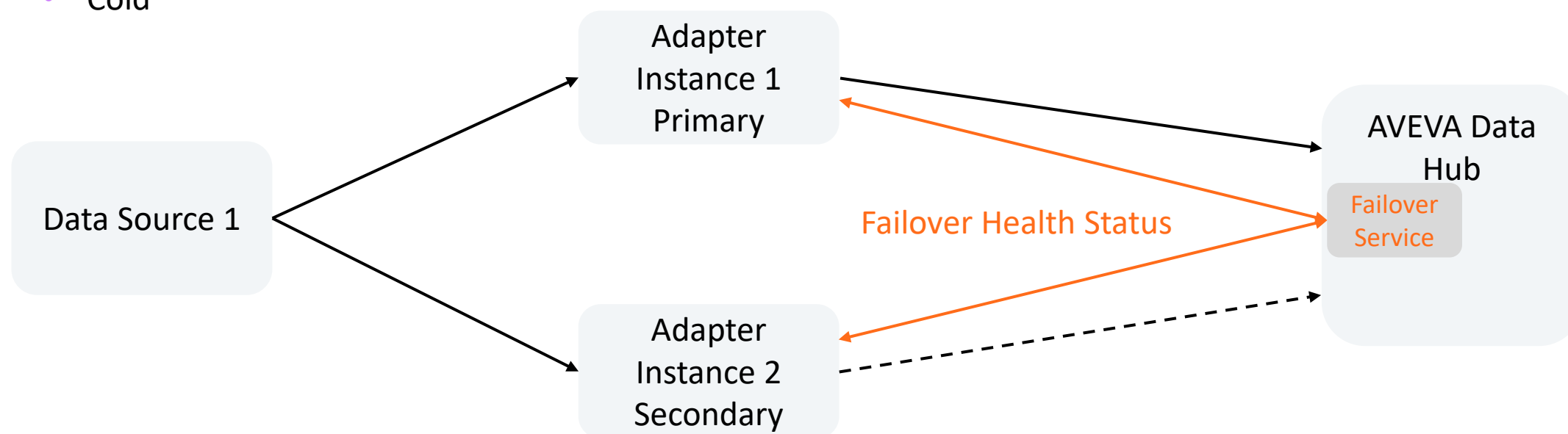


# New Feature for Adapters - Failover

## Client-level Failover

Failover Modes:

- Hot
- Warm
- Cold



# New Feature for Adapters - Failover

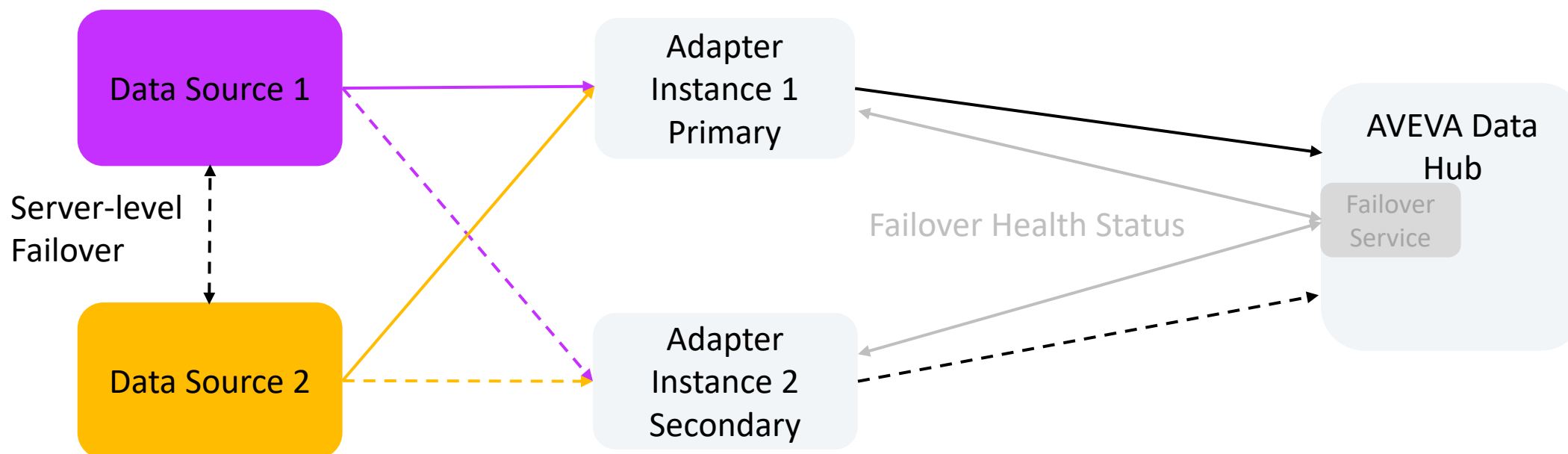
## Server-level Failover

Failover Modes:

- Server-dependent

### **Supported Adapters:**

- *Adapter for MQTT*
- *Adapter for OPC UA*

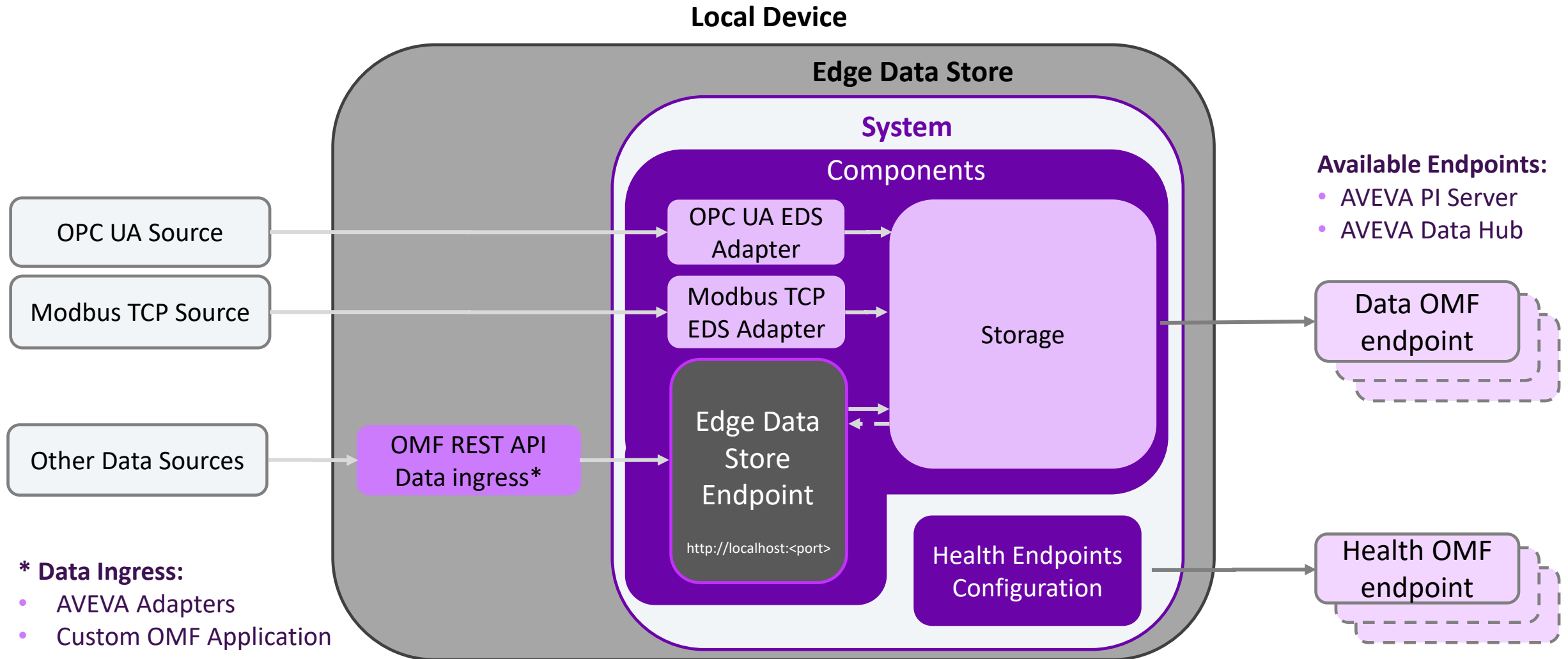


# Edge Data Store



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

# Architecture of Edge Data Store



# What's New in Edge Data Store 2023?



## Stream Tags and Metadata

- Support for Sds stream tags and metadata



## OMF 1.2 Support

- Support ingressing and egressing OMF 1.2 message types



## Egress Enhancements

- Manual egress functionality
- Periodic egress enhancements
  - Added start time
  - Flexible egress configuration
  - Added data filtering similar to AVEVA Adapters (formerly PI Adapters)



## Health and Diagnostics

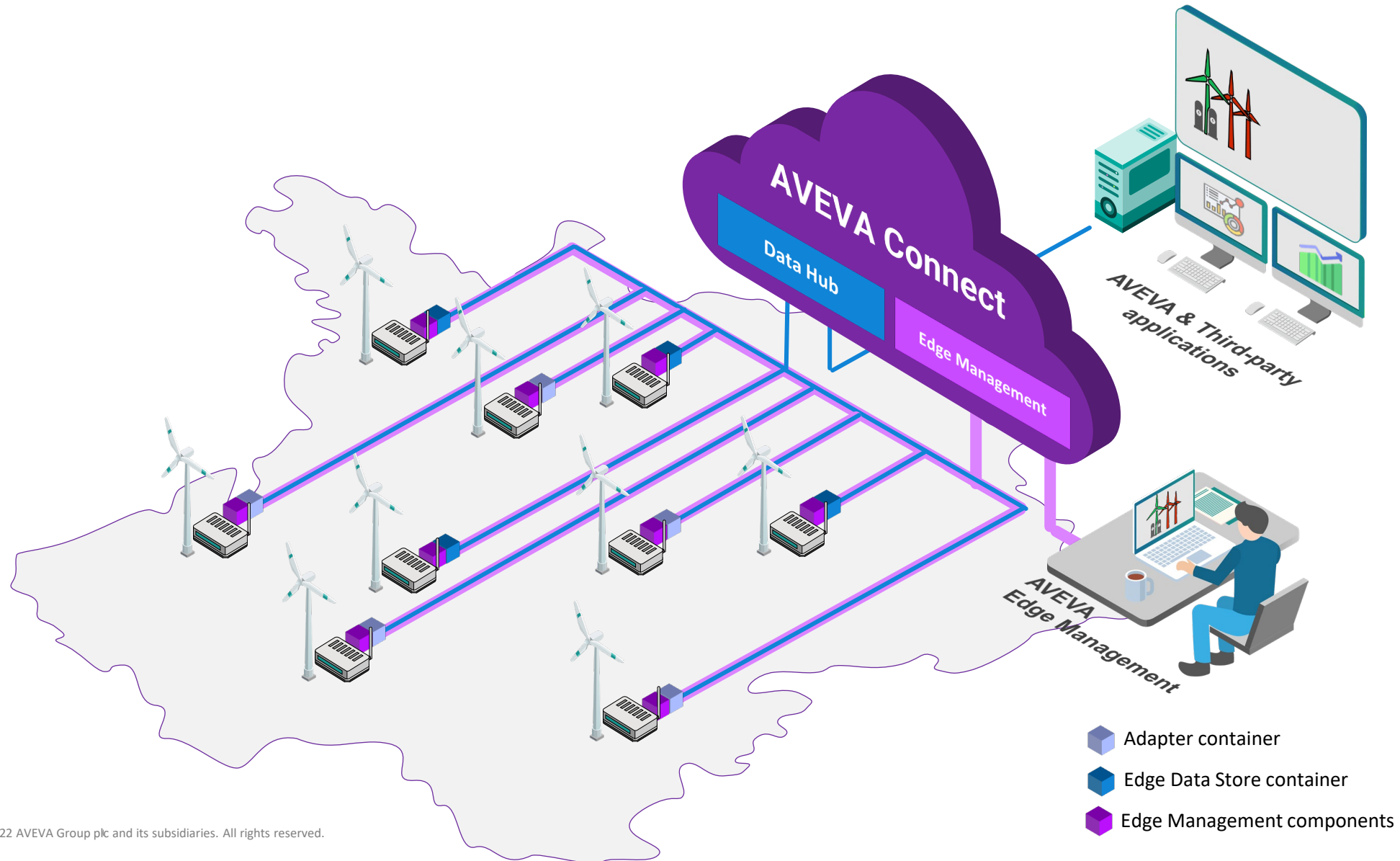
- Improved health and diagnostics reporting, including egress I/O rate
- Health and diagnostics data stored in PI Data Archive, Asset Framework (AF), and AVEVA Data Hub



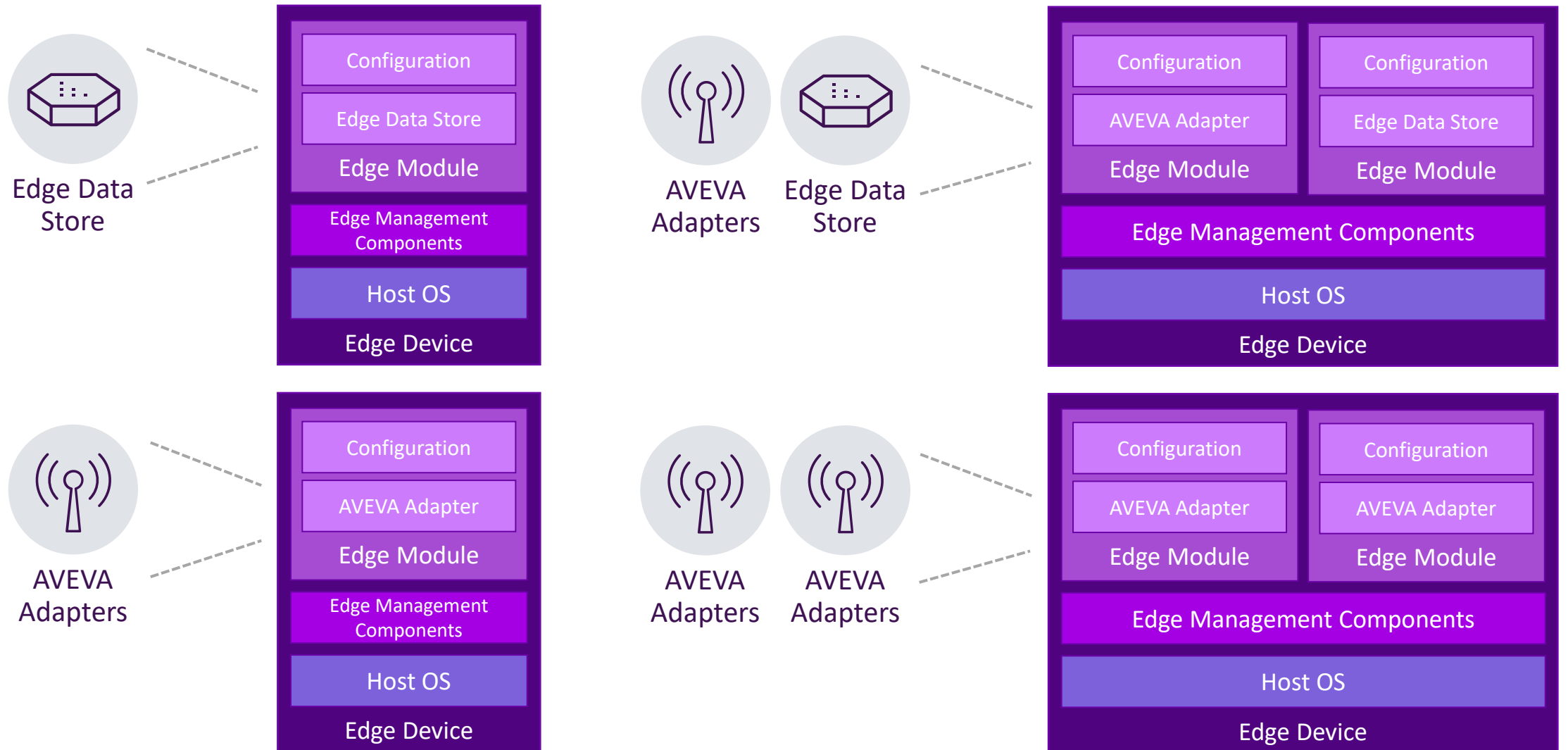
## Embedded Adapters

- Updated versions of AVEVA Adapter for OPC UA and AVEVA Adapter for Modbus TCP

# AVEVA Edge Management unlocks remote operations monitoring

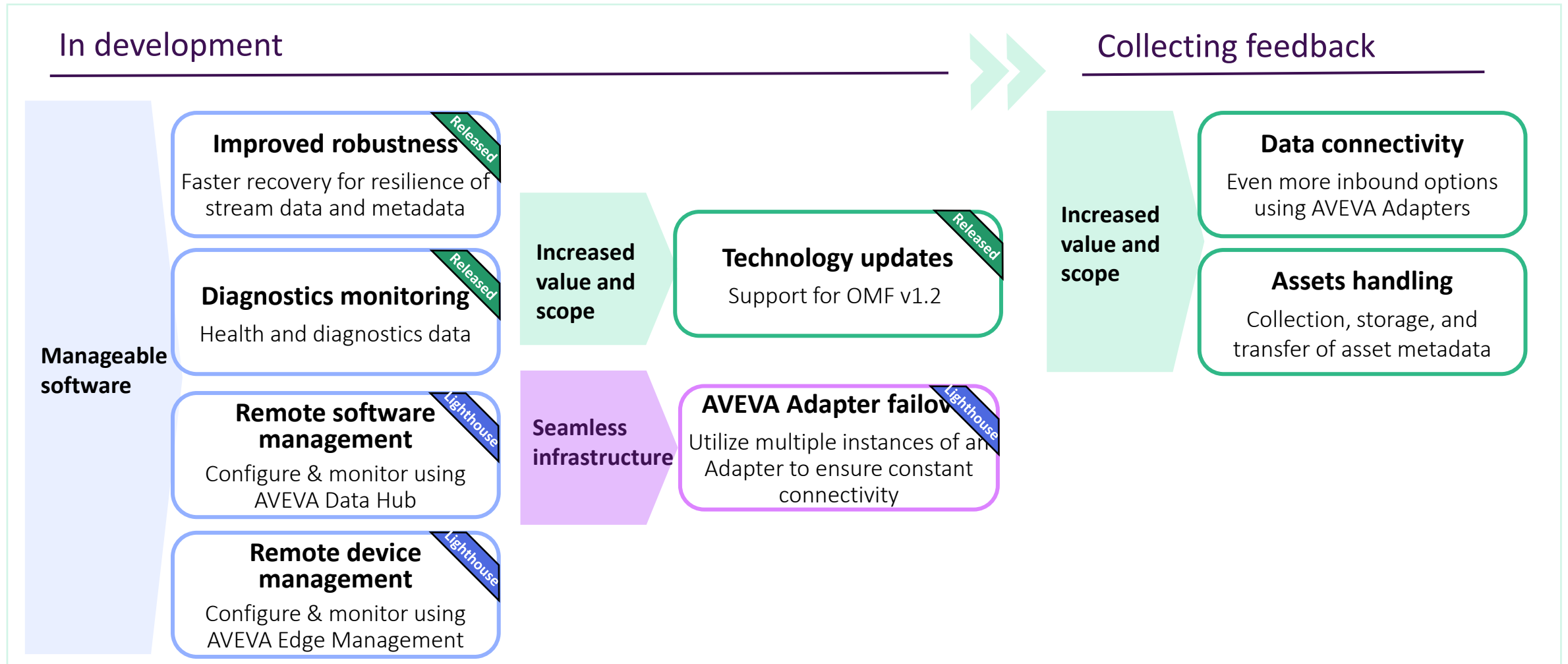


# EDS and AVEVA Adapters as Edge Management modules

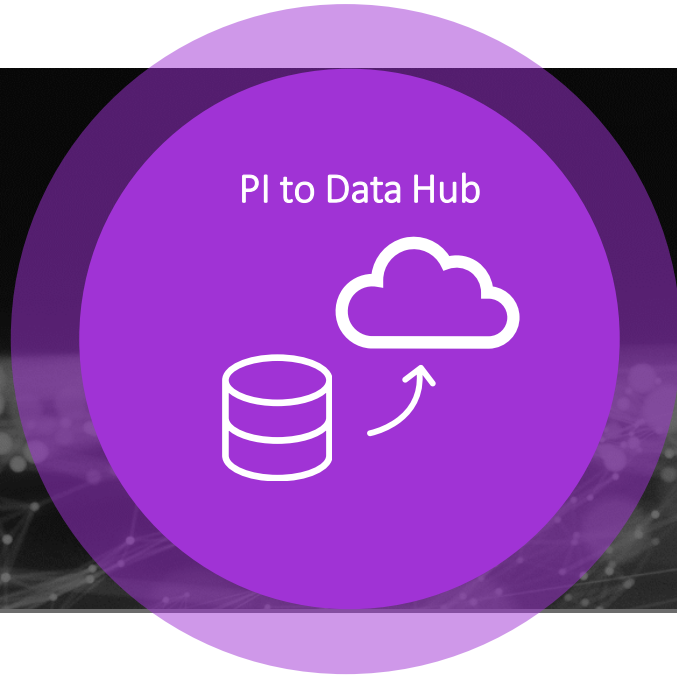




# What's next for Edge Data Store and AVEVA Adapters?



# PI to Data Hub



Central Configuration



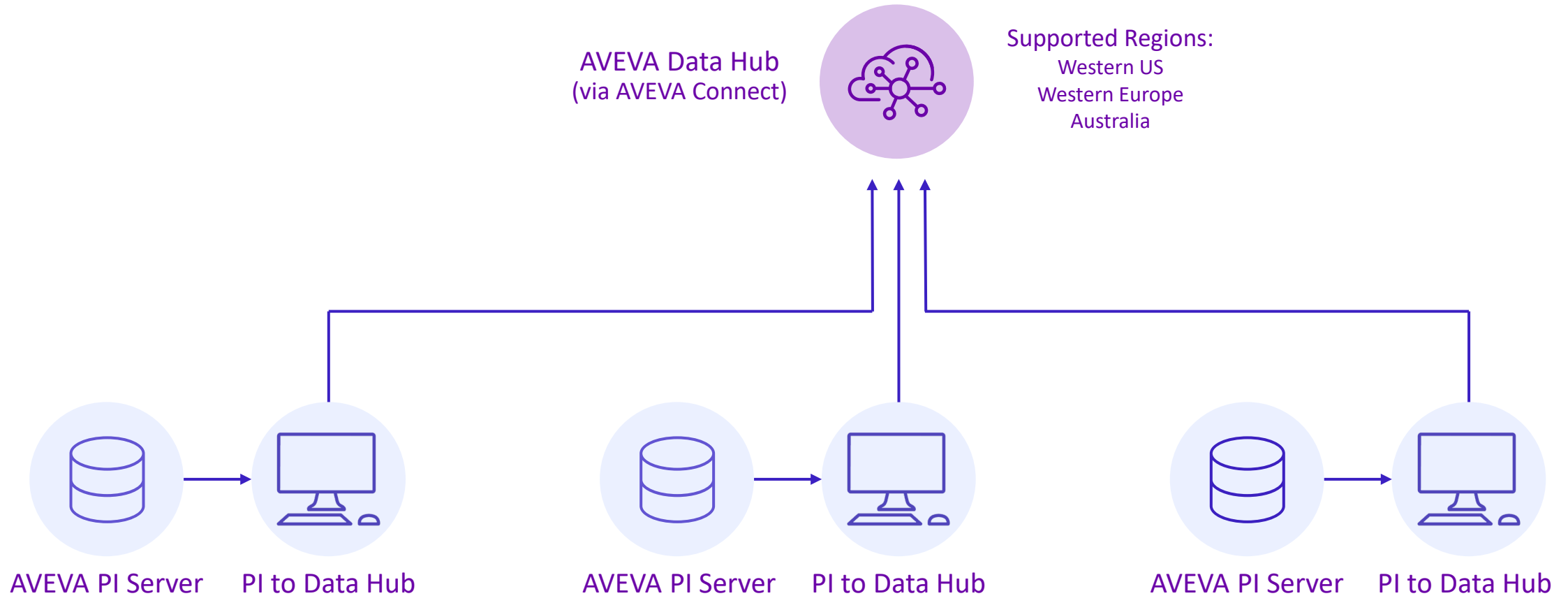
Simple to use



Secure

- Send your existing PI to Data Hub
  - Current data
  - Historical (optional)
  - AF Elements and Attributes (optional)

# PI to Data Hub - Architecture



# What's New in PI to Data Hub



## AF Replication

- AF Elements
- AF Attributes
- PI Point references
- Constant values/strings
- Excluded attributes



## Edit Transfer

- Transfer Name
- Transfer Description
- Data Privacy Settings
- Add/Remove AF Elements
- Add/Remove PI Points



## Data Privacy

- Configure the data privacy level for stream metadata replication



## Health Events

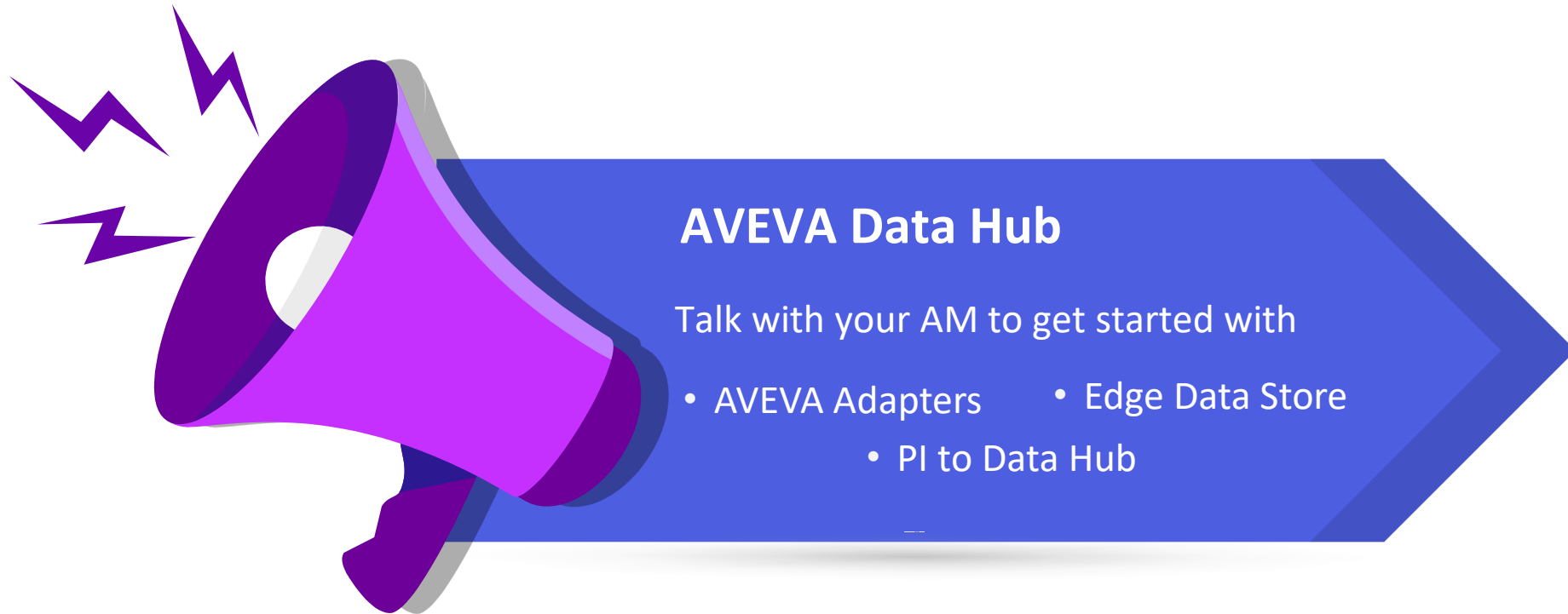
- View Warnings, Errors for your Transfer and Agent
- Sort, Export, Clear Health Events



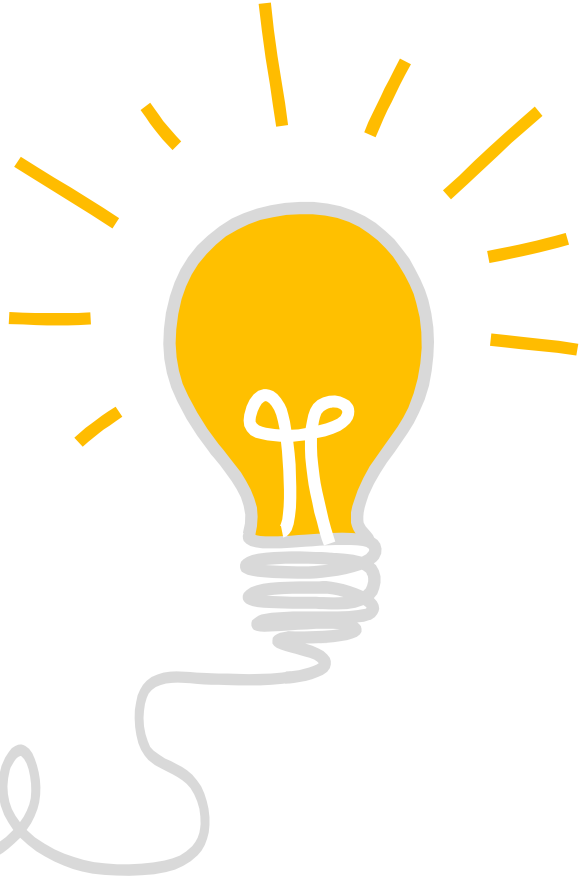
## Change Synchronization

- PI Points
  - Names
  - Attributes
- AF Elements
- AF Attributes
- PI Point references
- Constant values/strings

# Call to Action



How can you influence the AVEVA product roadmap?



<https://feedback.aveva.com>

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Let us know your product feedback!

# Learn more about Operational Data in the Cloud!

## Related Sessions @ AVEVA PI World 2022 – San Francisco

### • Day 1: Industrial Cloud Platform

- [AVEVA](#): AVEVA Connect, Industrial Cloud Platform – Vision, roadmap, and starting your operations and engineering digital twin journey [14:00]
- [AVEVA](#): Power your secure industrial ecosystem of data, applications, and partners with AVEVA Data Hub connected communities [14:40]
- [AVEVA](#): Accelerate Your Time to Value with Analytics and Applications Fueled by AVEVA Data Hub [15:40]
- [AVEVA](#): On your marks, get set, Unleash your Operational Data in the Cloud! [16:20] [\[this talk\]](#)
- [AVEVA](#): Aggregating Engineering Content, Data and Documents and Real-Time Data into a Common User Experience [17:00]

### • Day 3: Industrial Cloud Platform

- [AVEVA](#): Four Imperatives of a Trusted Information Infrastructure [10:45]
- [AVEVA](#): Deploy Edge Data Store and Adapters in minutes with AVEVA Edge Management [11:25]
- [AVEVA](#): Visualizing the Digital Twin, an Independent Service on the Industrial Cloud Platform [13:30]
- [AVEVA](#): Uniting the connected community through secure and transparent industrial data sharing [14:25] [AVEVA](#): Harnessing the power of Sequential Data Store (SDS) and Assets for developers and partners [15:30]
- [AVEVA](#): Aggregating data with Data Hub asset rules and data views for analytics and applications [16:25]

### • Day 1: AVEVA PI System

- [AVEVA](#): Enhancing connectivity to industrial operations, more data from more places [14:40]

### • Day 3: AVEVA PI System

- [AVEVA](#): How (Not) to Fail at Collecting Data: An Adapter Failover Installation and Configuration Deep Dive [15:30]
- [AVEVA](#): Hybrid Data Management with AVEVA PI System and AVEVA Data Hub [16:25]

### • Expo: AVEVA Booths – Edge and IIoT

- [Live Demo: Instrumented Soccer Ball](#)
- [Remote deployment via Edge Management on AVEVA Connect](#)

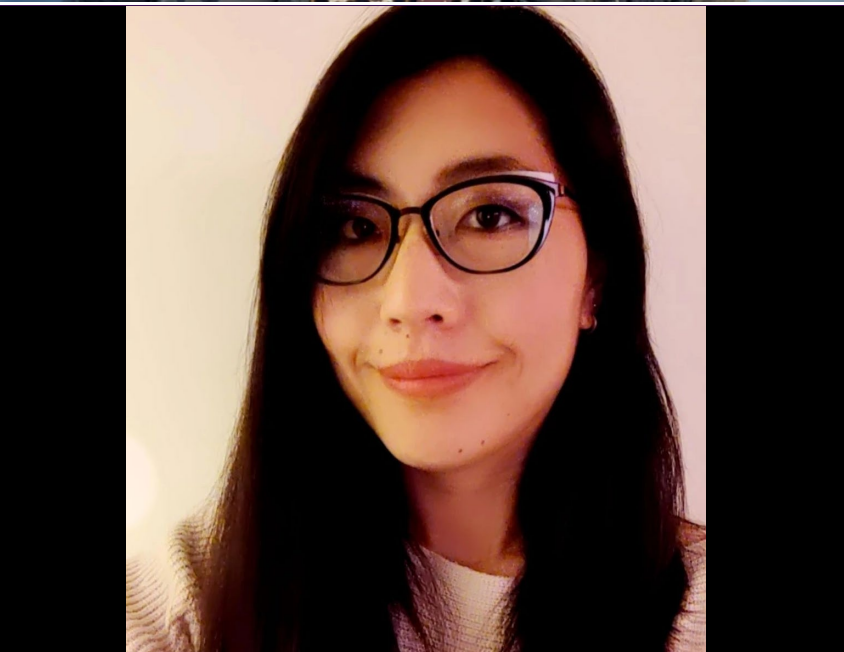


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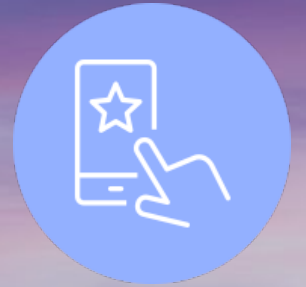
# Questions?

Please wait for the microphone  
State your name and company



# Please remember to...

Navigate to this session in the mobile  
app to complete the survey.



# Thank you

# AVEVA