

NOVEMBER 2022

Transforming Real-Time Data into Actionable Information with AVEVA™ PI Server

Kevin Geneva, Sr. Technical Product Manager, AVEVA

AVEVA



My career in protecting data

The Academy of Natural Sciences

- Created my first database in Excel
- Preserving tissue for future DNA analysis
- Spent a lot of time in a walk-in fridge



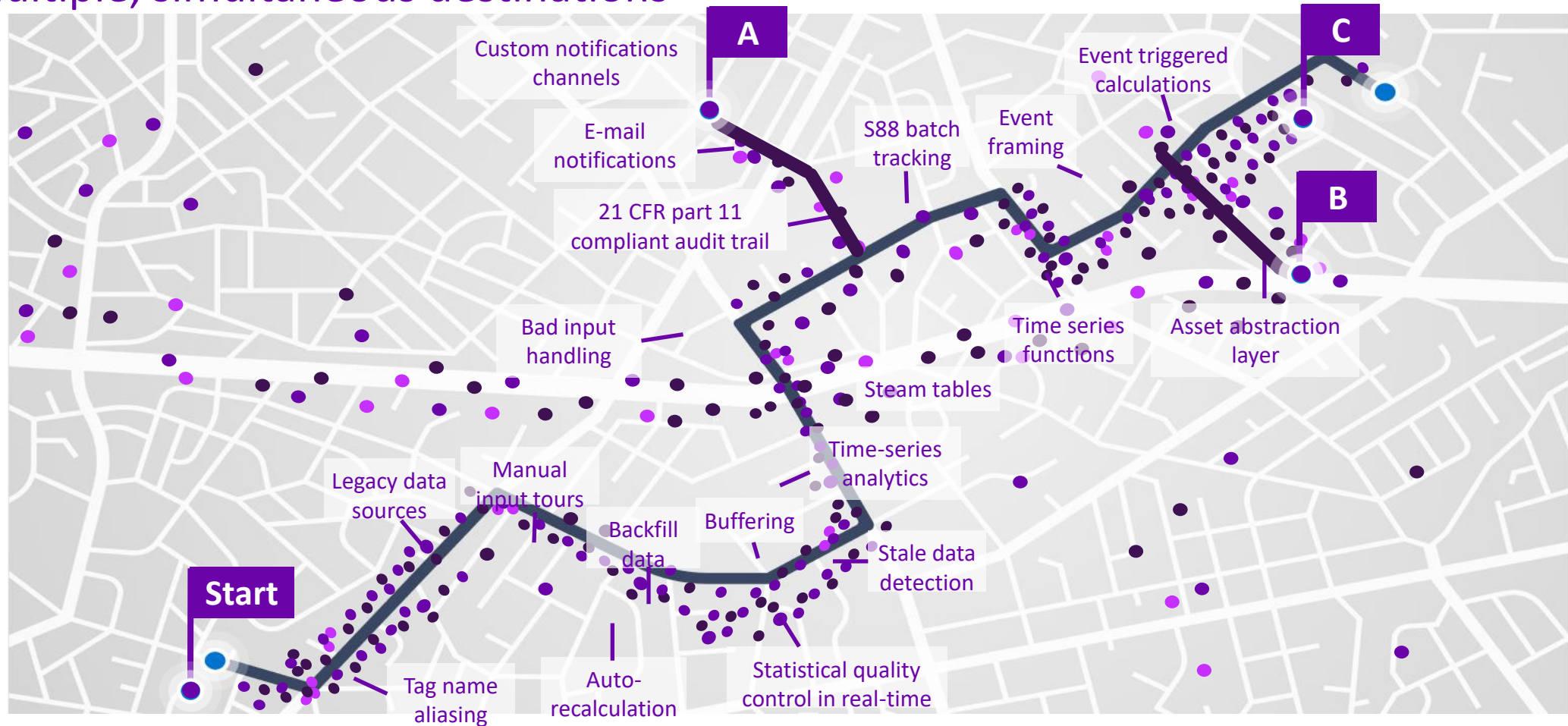
My career in protecting data

The Academy of Natural Sciences

- Samples were stored at -80 degC
- First introduction to a critical asset
- Home built notifications system

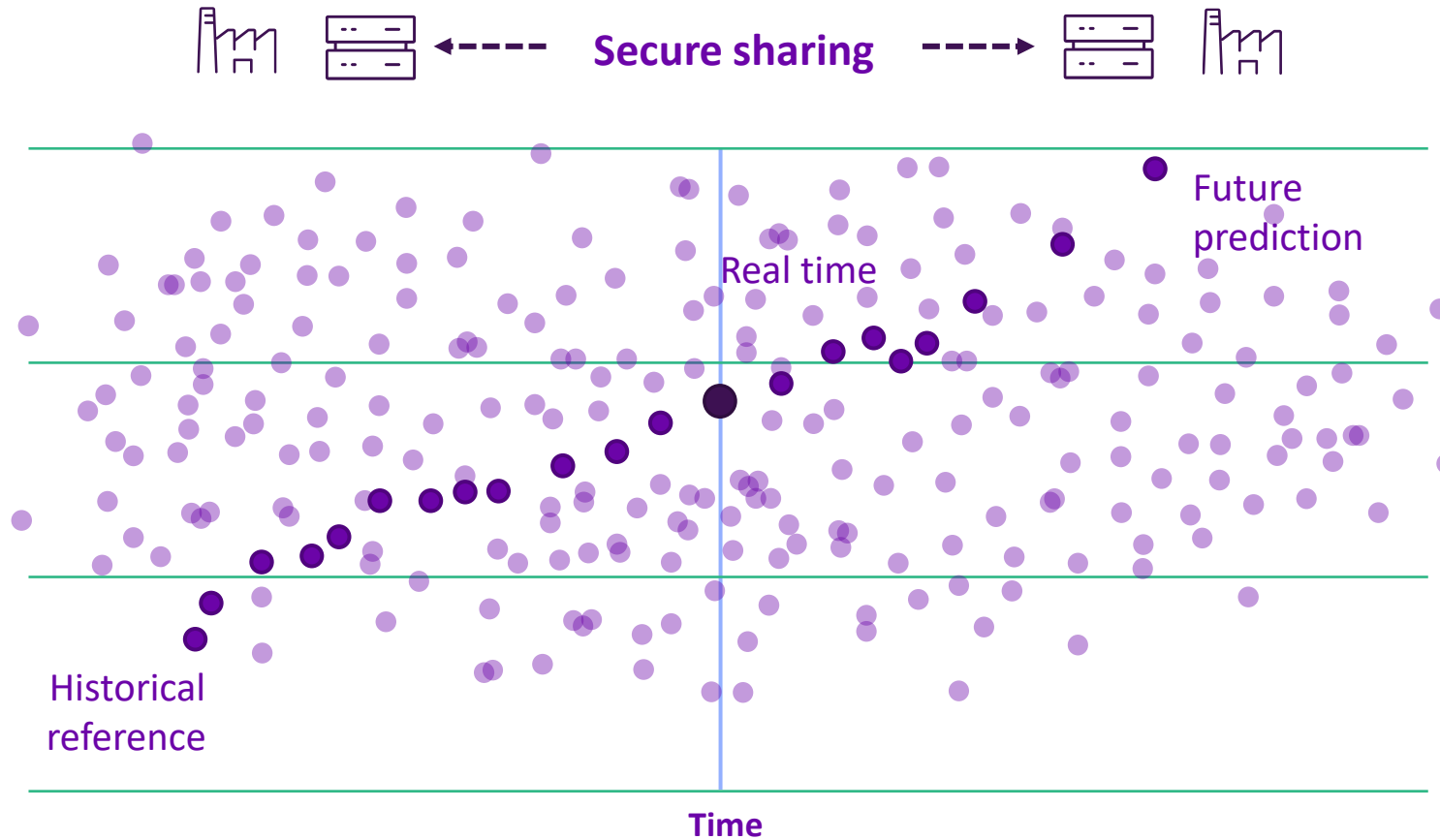
What makes OT data so difficult to harness?

Multiple, simultaneous destinations



What makes OT data so difficult to harness?

Scope, scale, and secure sharing



SCOPE

Collect data

- Legacy and new
- High fidelity
- Real time and historical

SCALE

Manage data

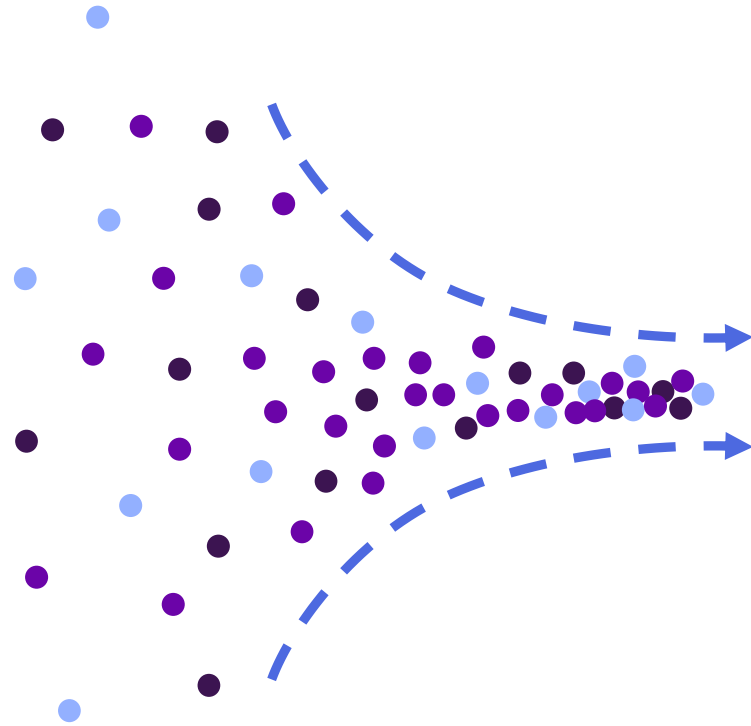
- Store for rapid retrieval
- Self-service and AI-ready
- Clean, transformed, and contextualized

SECURITY

Use data

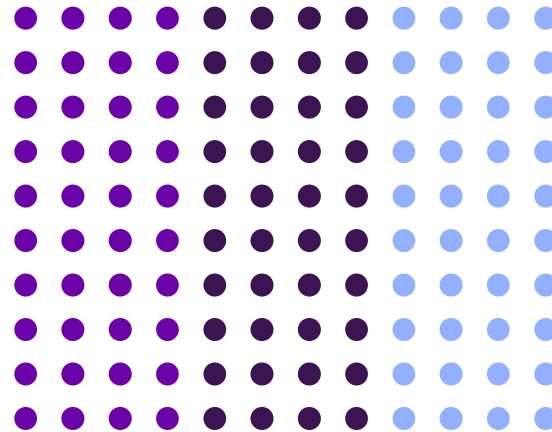
- Secure across OT, ET, IT, and business domains
- Secure at rest and in motion
- Share across business and ecosystem

From data to intelligence



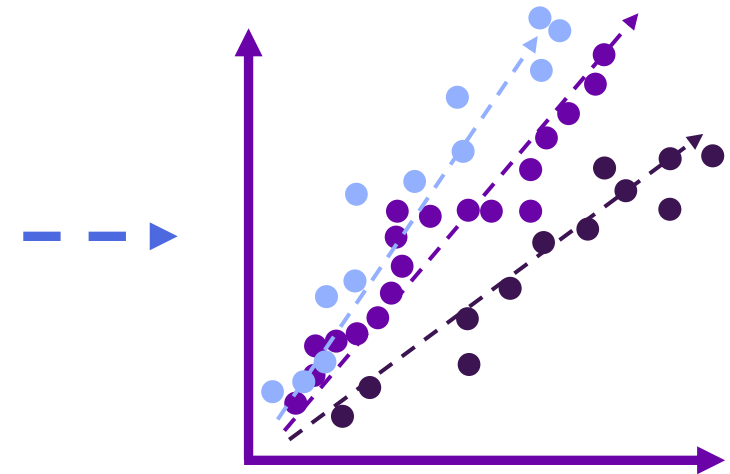
Data

Raw data points,
difficult to interpret



Information

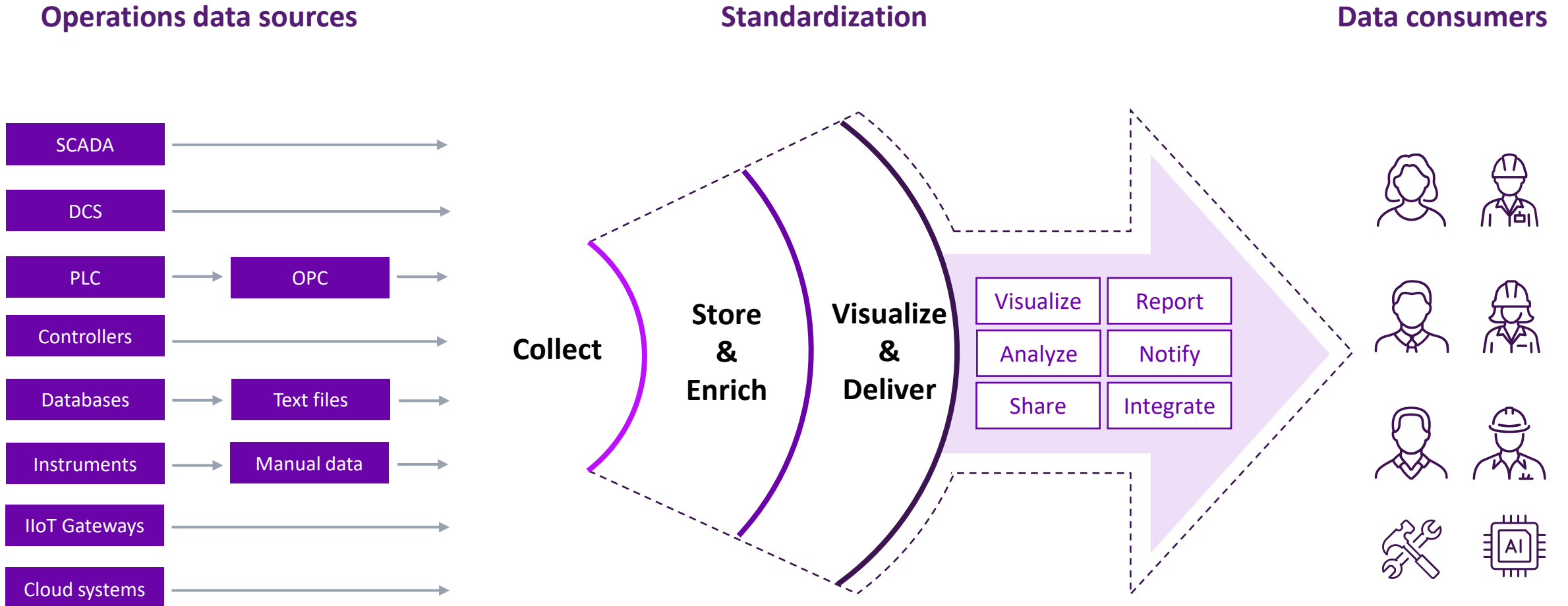
Contextualized, real-time
decision support



Intelligence

Business/operation
analytics

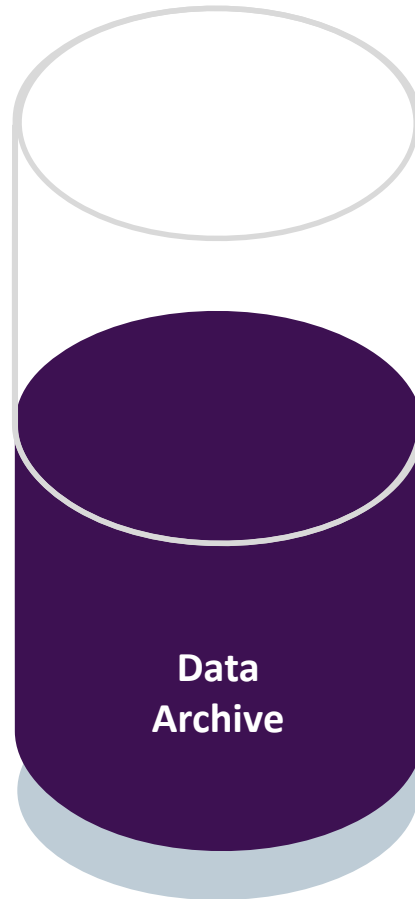
Connect people to data with an infrastructure approach



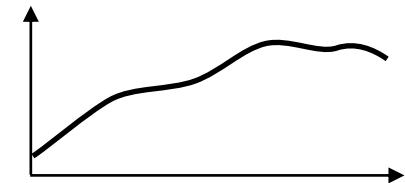
AVEVA PI Server: Data Archive

Optimized storage & access to massive volumes of operational data

- Store millions of data streams and thousands of values per second over multiple decades
- Maintain the original fidelity of your data
- Keep your data online for immediate, real-time retrieval
- Store future data from predictive models and other sources



PI Server



 MP01.HOU.PV

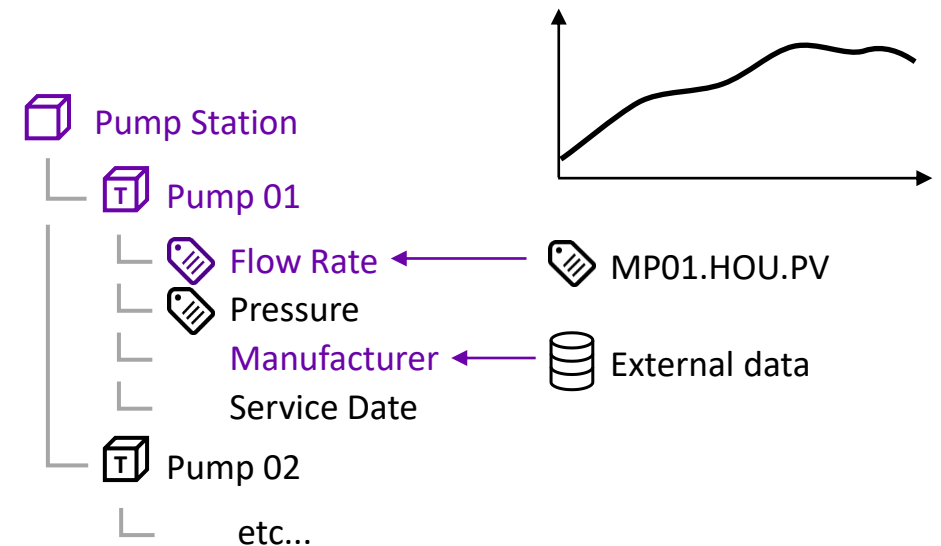
AVEVA PI Server: Asset Framework

Organize and contextualize your operational data in a way that makes sense to users across your enterprise — not just SCADA experts

- Label data with human-friendly names
- Group related data into assets
- Add metadata and context manually or from external systems
- Standardize groupings, labels, and units with templates



PI Server



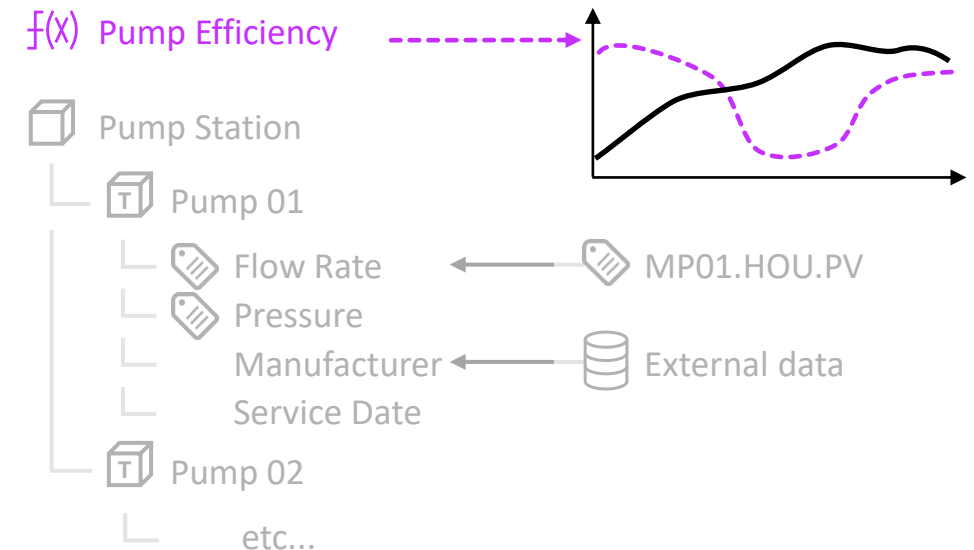
AVEVA PI Server: Asset Analytics

Standardize and centralize your operations calculations and KPIs with continuous real-time results

- Easy-to-use interface and a rich set of built-in functions
- Migrate equations from Excel or other tools
- Templatize and roll out calculations across multiple assets in bulk
- Backfill calculation results as far back as you have source data



PI Server



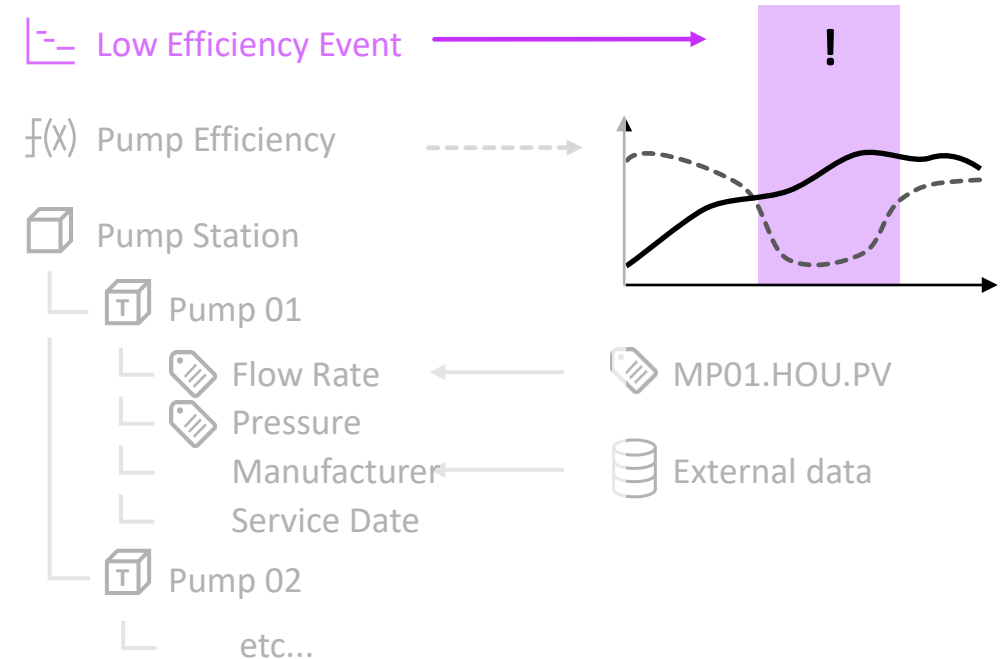
AVEVA PI Server: Event Frames

Automatically **bookmark important events** in your operations

- Find the minute that matters in a decade's worth of data
- Capture events based on user-defined process thresholds or other KPI triggers
- Store related context and calculations within Event Frames
- Easily analyze and compare these events in bulk



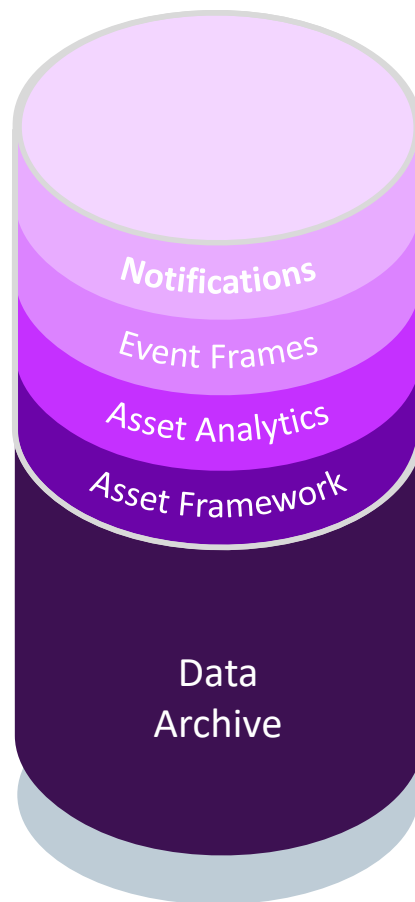
PI Server



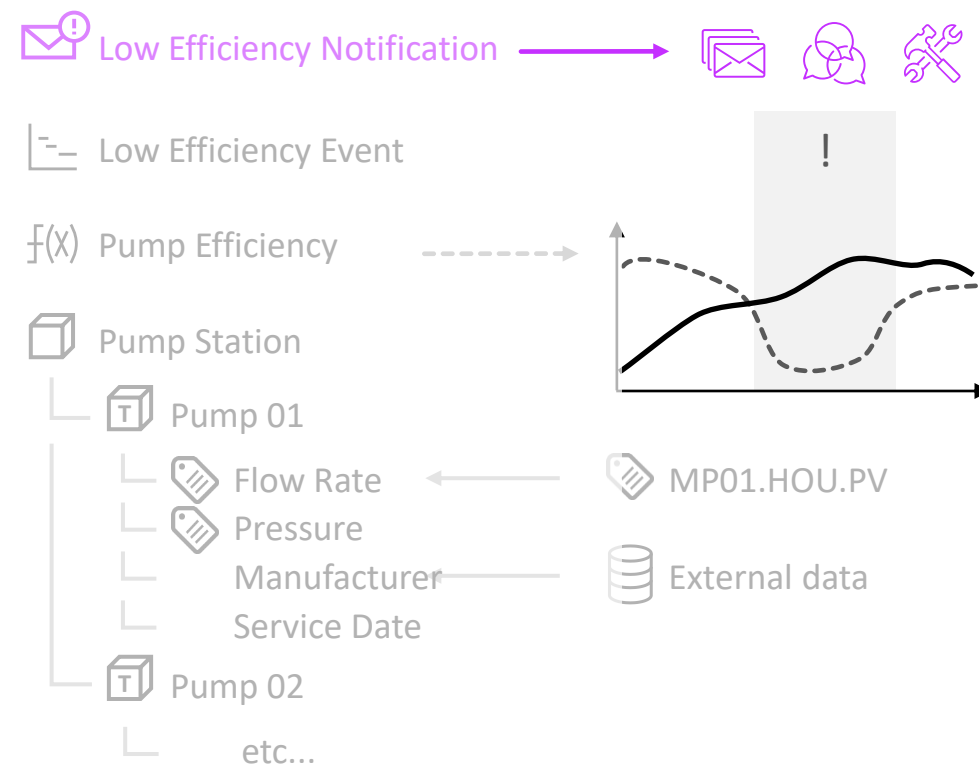
AVEVA PI Server: Notifications

Automatically send alerts to the right people with the right information

- Configure notification emails to contain values, trends, links, and attachments
- Design specific email formats for different recipients
- Send to individuals or groups, and automatically escalate if unacknowledged
- Send directly to web services for integrating with 3rd-party systems



PI Server





AGL enables real-time data access
and predictive modeling with the
AVEVA PI System

**“What came along was a solution that
really fit what we needed, and that was
the PI System. It could connect to any one
of our controllers. We could harvest every
piece of real-time data and make it
available to every person at AGL.”**

**David Bartolo, Head of Asset Performance,
AGL Energy**





Kellogg's uses the PI System to set and reach 10-year energy targets

"Our plant is saving \$3.3M annually and we've claimed \$1.8M in rebates – and those rebate unlocks don't come without data."

**John Gothberg
Engineering & Facilities Manager**



Secure by design



Scanning for issues



Long term support



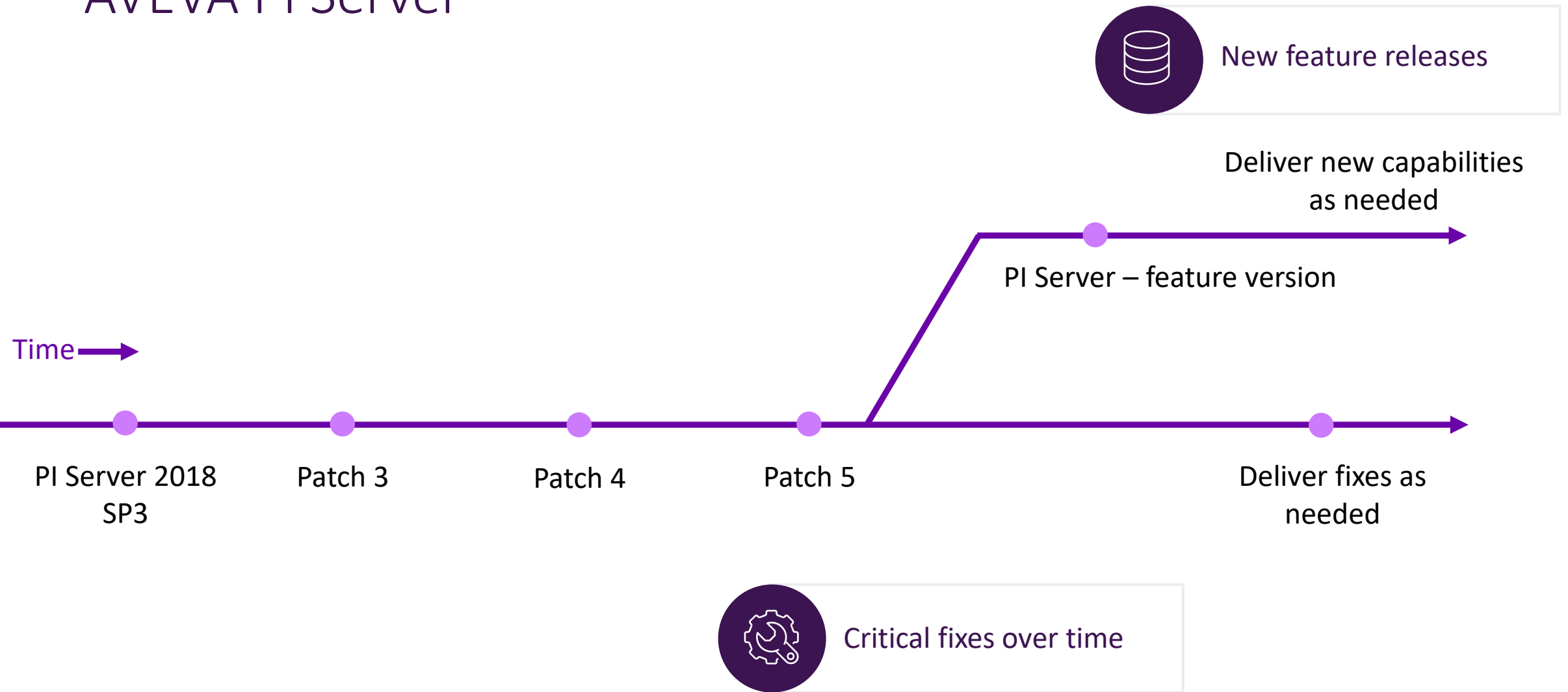
Modern authentication



Manageable Software

Seamless Infrastructure

AVEVA PI Server





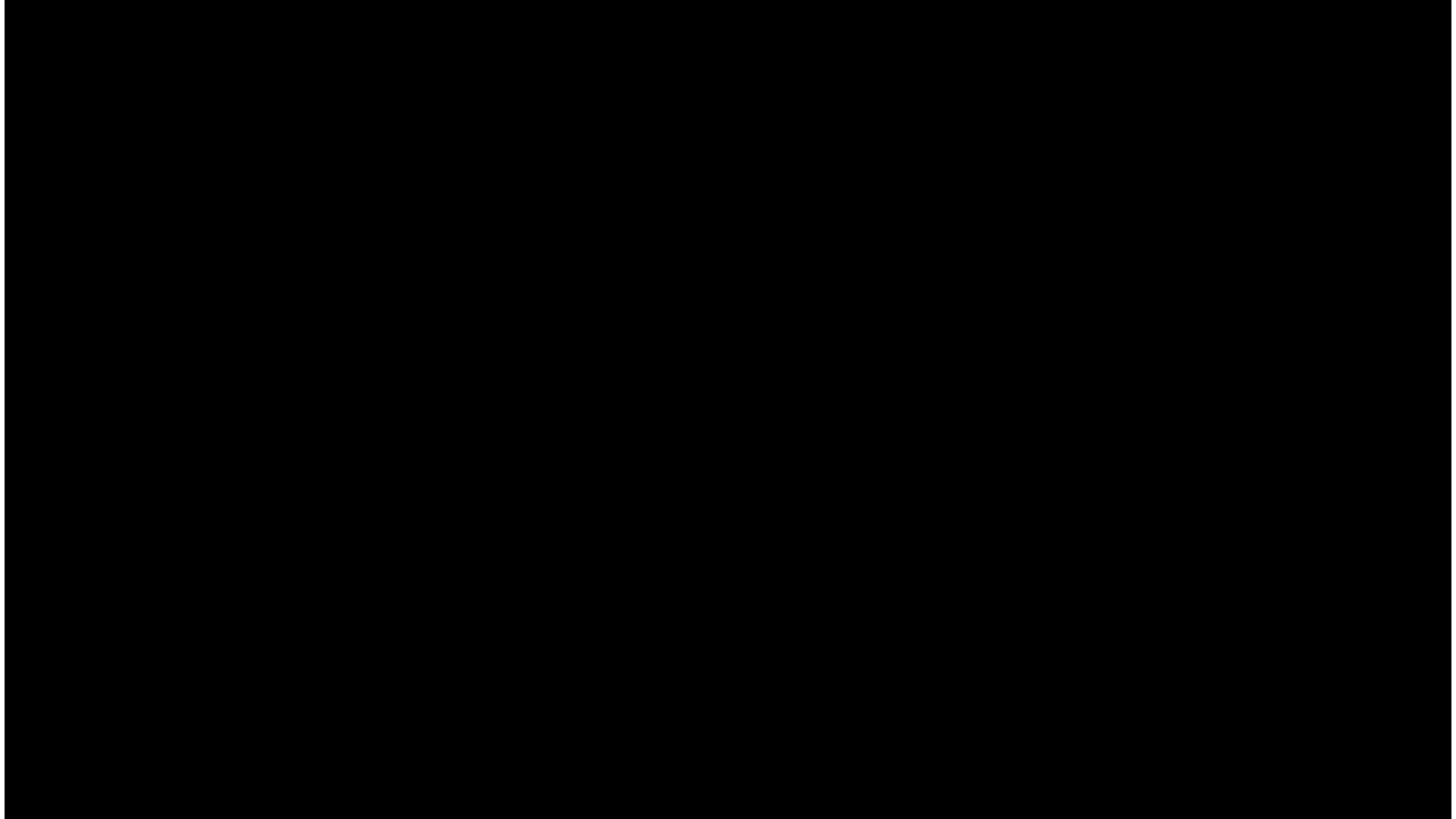
What's new in AVEVA PI Server?



What's new?

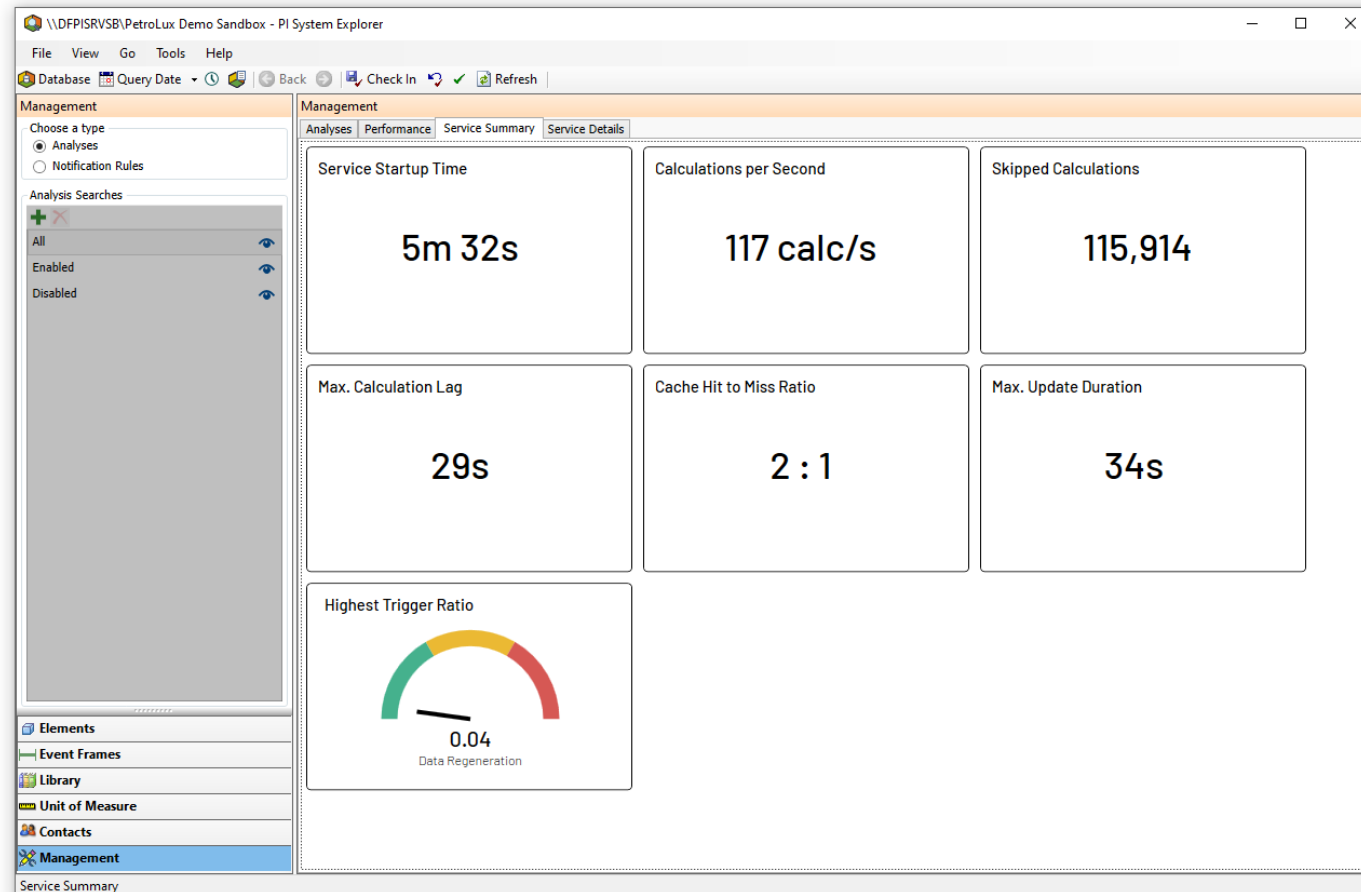
- AF Client 2018 SP3 Patch 4 & accompanying PI Server Patch
- Easily display Asset Analytics' Health and identify issues
- Simple filtering on the main page and sorting capabilities for columns
- New tabs to manage overall service

$f(x)$

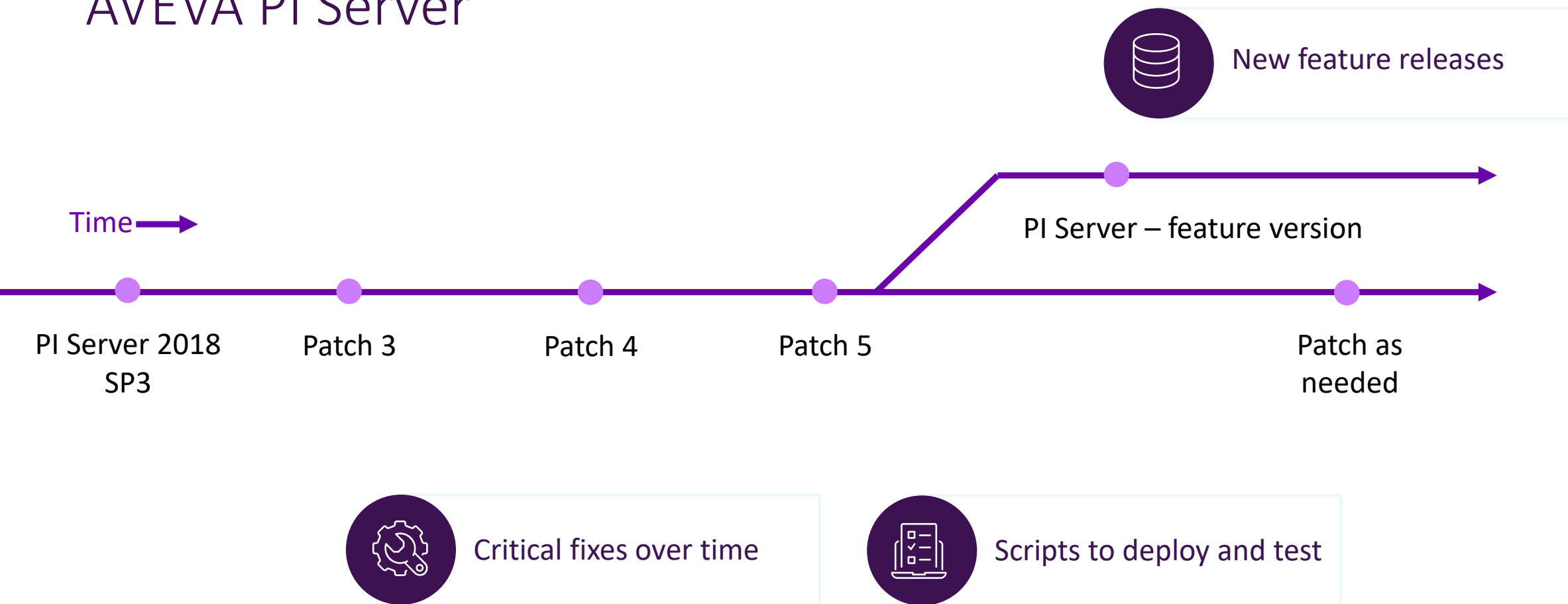


What's new?

Quickly and easily see Analytics health and find problematic analyses



AVEVA PI Server



What are we working on now?



Changing IT Landscape

- **Data infrastructure moving to cloud**
- **Single sign-on is the standard**



Scalable infrastructure



Identity as a Service



Transport security

Modern Authentication and the PI System

OpenID Connect



For **secure authentication**

AVEVA Identity Manager



Proven technology to
integrate **Identity Providers**

TLS Support



Transport Layer
Security for **trusted communication**

Modern Authentication and AVEVA PI System

OpenID Connect



For secure
authentication

AVEVA Identity Manager



Proven technology to
integrate **Identity**
Providers

TLS Support



Transport Layer
Security for **trusted**
communication

PI Server transforms data into information

PI Server 2018 SP3 Patch 5

**Manageable
software**

Asset Analytics Management

Displaying the performance and health of calculations



In development

**Seamless
infrastructure**

Modern Authentication

OpenID Connect

TLS Communication

Transport security

**Manageable
software**

Improved Reliability and Security

Focusing on bug fixes, security improvements and quality updates.

Learn more...



Talks

**AVEVA PI Server Analysis:
Expressions Tips and Tricks**

Day 3
11:25 - 11:55 AM
Room 2005-2007

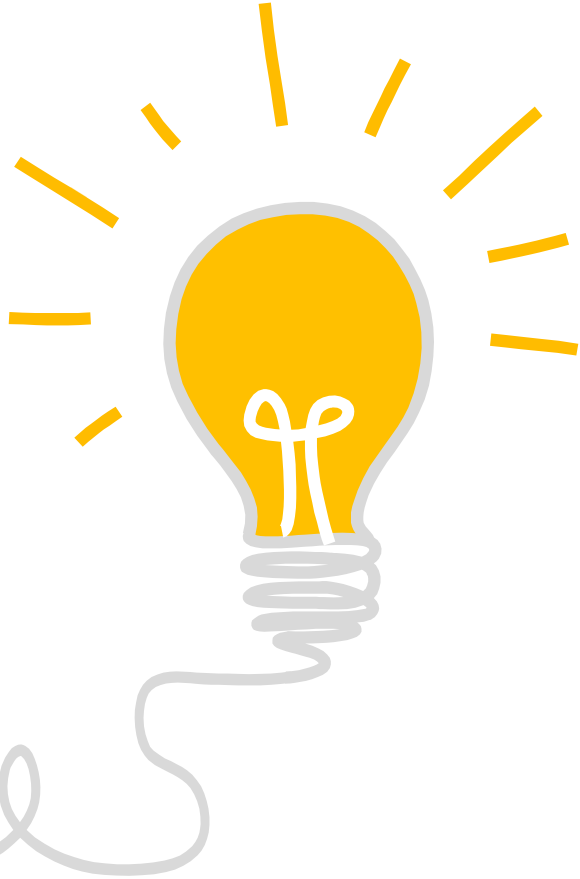


Talks

**Hybrid Data Management
with AVEVA PI System and
AVEVA Data Hub**

Day 3
4:25 - 5:10 PM
Room 2005-2007

How can you influence the AVEVA PI System roadmap?



<https://feedback.aveva.com>

Let us know your product feedback!



Kevin Geneva

Senior Technical Product Manager

- AVEVA
- Kevin.Geneva@aveva.com

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!

This presentation may include predictions, estimates, intentions, beliefs and other statements that are or may be construed as being forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could result in actual outcomes differing materially from those projected in these statements. No statement contained herein constitutes a commitment by AVEVA to perform any particular action or to deliver any particular product or product features. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

The Company shall not be obliged to disclose any revision to these forward-looking statements to reflect events or circumstances occurring after the date on which they are made or to reflect the occurrence of future events.

 [linkedin.com/company/aveva](https://www.linkedin.com/company/aveva)

 [@avevagroup](https://twitter.com/avevagroup)

ABOUT AVEVA

AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. With operations around the globe, we are headquartered in Cambridge, UK and listed on the London Stock Exchange's FTSE 100.

Learn more at www.aveva.com