# Accelerating Industrial IoT with Proven Hardware and Software Solutions

The age of Artificial Intelligence is here. Industrial IoT applications are particularly well suited for AI-based approaches due to the large number of devices, the volume of data transactions, the complexity of the network, and most important the value of predictive insights. Capitalizing on this business opportunity requires rapid development and a speedy go-to-market by current industrial IoT solution providers.

Rayven is a flexible, easy-to-use, real-time AI and IoT platform for creating purpose-built solutions. Out-of-the-box device management, dashboards, machine learning, security, data and integration tools, and automation — to monitor, manage, and optimize operations — are a few of the platform's powerful features that save cost and development time.

Core capabilities of the Rayven platform include:

- Drag-and-drop workflow builder: Easily create customized business logic for specific requirements
- Machine learning & predictive analytics as standard: Train, test, and deploy machine learning & AI models to detect anomalies, predict failure, forecast and more
- Automation & control: Push data to any third-party system, including controls for manual and automated updates
- Real-time dashboards, visualizations & insights: Configure customized dashboards to provide actionable insights and advanced analytics
- Device monitoring, management & maintenance: Monitor the health of any device and deploy updates centrally
- White labeling: Brand dashboards and applications to provide a customized, consistent experience

## Rayven's End-to-End, Secure IoT & AI Platform



**Flexible -** Deploy any industrial AI, IoT, or predictive analytics real-time solution.



**Easy-to-use -** Simple, codeless interface with drag-and-drop functionality.



**Secure -** Proprietary security architecture ensures your data is secure at all points.



Compatible -Integrate any technology or data, regardless of format.



Quick-to-deploy -

All-in-one and no-code means you can deploy in weeks, not months.



**Affordable -** Simple, transparent pricing with flexible models based on needs.

In partnership with:









# Rayven and Arrow IoT Solution Stack Components

#### Rayven

 Rayven platform for rapid development and deployment of industrial IoT & AI solutions

#### Intel®

 Intel® technologies including Pentium®, Celeron®, Core™, and Xeon® processors

#### Microsoft

- Microsoft Windows 10 IoT Enterprise OS
- Microsoft Azure-powered cloud storage and services including Azure SQL edge

#### HPE

Powered by Intel technologies,
 HPE Edgeline Systems
 include compute, storage, and
 management at the edge

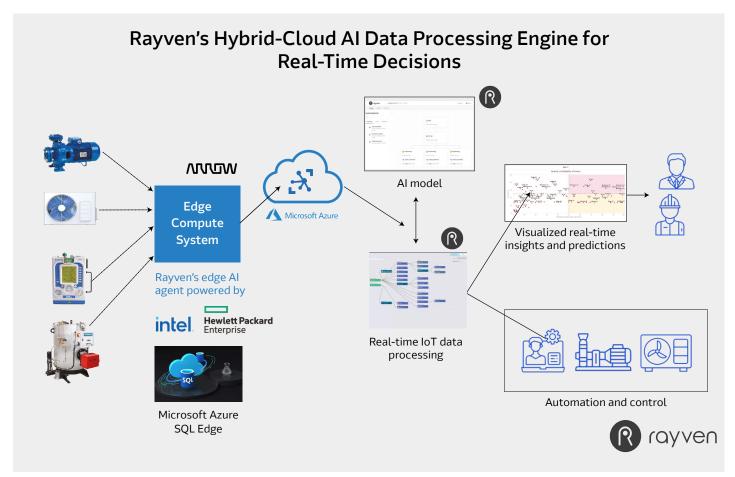
#### **Arrow Services**

- Hardware products:
   Embedded, workstation, and rack mount form factors
- Product services: Design, support, or professional services
- Manufacturing services: Supply chain, integration, and logistics.



# Rayven's Hybrid-Cloud AI Data Processing Engine for Real-Time Decisions

Rayven is a codeless IoT platform used for creating, operating, and optimizing brilliant industrial control, real-time analytics, and AI solutions. Ready-to-deploy, simple-to-use, and affordable, the platform solves real-world problems by delivering customized IoT and AI solutions that deliver real, tangible outcomes for businesses. Train, test, and deploy new or ready-to-go machine learning models using the no-code machine learning workbench that's built into the platform.



# Featured Hardware - HPE Edgeline 1000

Based on Intel® Xeon® multi-core processors, the HPE Edgeline EL1000 converged edge system offers unprecedented levels of edge compute, precision data capture and control, data center-class security, device and systems management, as well as large and super-fast storage capabilities — in one converged box. This rugged and compact system is designed to perform in harsh edge industrial environments with higher shock, vibration, and temperature levels.

#### **Features**

- Low latency
- Real-time insights
- On edge anomaly detection AI
- Supports intermittent disconnected use cases
- Local data processing and cloud sync



Five Years Out arrow.com/arrow-services



#### **Use Cases**

Rayven provides all the tools and functionality necessary to adopt any IoT, AI, or Industry 4.0 use case. With its simple drag-and-drop tools and built from the ground up to integrate with any device, control system, or data source — the platform enables rapid development and deployment of industrial IoT & AI solutions in a wide range of industries.



**OEE Dynamix**Provides real-time
insights through highly flexible
approaches to data capture,
processing and calculations



Advanced Farming Intelligence
Enables remote monitoring of soil,
water levels, weather, irrigation,
and livestock in
real-time to optimize yields



Advanced Fleet Intelligence
Enables real-time monitoring and
optimization insights on fleet
utilization, efficiency, driver safety
and compliance tracking



Intelligence
Monitor, manage, and control
water levels, usage, and leaks with
remote control and
real-time insights



Utilization Intelligence
Track and understand vehicles,
machinery, pump, and motor
performance to optimize
operations and predict failure



Compliance Intelligence
Monitor environment
compliance, track waste, assess
performance and implement
predictive maintenance

**Construction Management and** 



Environmental Intelligence
Complete solution to track and
control air quality, noise, odor,
dust, and water and initiate
real-time action



Facility Management Intelligence
Complete solution to track and
optimize energy, water, machinery,
and other asset usage and predict
failure

# **About Rayven**

Rayven, based in Sydney,
Australia provides
businesses with fast, affordable
access to IoT, AI, machine
learning, and real-time analytics
solutions. Their drag-and-drop
Rayven IoT platform coupled with
industrial data science expertise
and deployment services enable
customers to gather real-time
insights and achieve their
business goals.



# Services to Accelerate IoT Project Development and Deployment

Efficient and robust hardware infrastructure choices need expert design and deployment support to maximize business outcomes. A host of service mechanisms can help OEMs succeed in their new product initiatives, from ensuring the right design tradeoffs between cost and functionality to implementing field upgrades.

Arrow Services has been building and integrating technology solutions for over 20 years — enabling our customers' business growth by simplifying their technology experience. As a solution orchestrator, we support the full lifecycle — from ideation, development, prototyping, and new product introduction (NPI) to manufacturing and global distribution.

### **Design Engineering**

Shorten time to market through one-on-one collaboration with Arrow's expert engineering team, creating innovative technology solutions to satisfy your customer requirements and needs. We guide the process from the initial idea to the final product, including certifications.

# Fulfillment

Ensure you always have the right product at the right place at the right time, without guesswork. Arrow's capabilities and services, along with robust financing programs, support new initiatives, simplify budgeting, and shorten sales cycles.

# **Support Services**

Improve customer satisfaction and maximize sales with 24/7 personalized support from Arrow's technical experts.

# **Manufacturing**

From planning to integrating, our technical and operational teams anticipate needs and exceed expectations across all sides of your business. Reduce cost and improve productivity where it matters the most, enabling you to expand into new markets with a scalable infrastructure.

#### **Professional Services**

Our comprehensive turnkey services and dedicated global teams provide secure, reliable support and complete management from the time product arrives in the field.

# **Financing Services**

Plans include a mix of operational expense (OpEx), capital expense (CapEx), and outcome-based models to meet key financial metrics.

Arrow is a global organization with a footprint in 90+ countries. Arrow can support you from any location and can help you expand easily to international markets. Scale globally with Arrow on several fronts — logistics, support, installations, compliance, and regulations.

#### Europe, Middle East, and Africa

globalservices@arrow.com +49 (0)6102 5030 8411

twitter.com/arw\_services

linkedin.com/showcase/arrowservices

V\_08\_04\_2021

Five Years Out arrow.com/arrow-services