NOVEMBER 16TH, 2022

Real Time Fleet Analytics with AVEVA Data Hub

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About IPD, IDS & Casne

Industrial Parts Depot, LLC

- IPD is a leading innovator of replacement heavy duty engine parts for diesel and natural gas equipment
- Based near Los Angeles, CA, IPD has a worldwide presence in every continent except Antarctica
- Privately-held, family-owned business since 1955

Industrial Digital Solutions, LLC

- IPD formed IDS in 2021 to simply & intelligently connect assets with owners, operators, managers, and service channels.

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CASNE

- Operating globally from Bellevue, WA USA. Established in 1979
- Full-service engineering, systems integration, and technology services.
- AVEVA Endorsed Systems Integrator (AVEVA PI systems) since 2006

- Oil and Gas
- Power Generation
- Water/Wastewater
- Manufacturing
- Data Centers
- Critical Facilities
- Transportation

CloudStream

AVEVA ENDORSED System Integrator

Endorsed Operate

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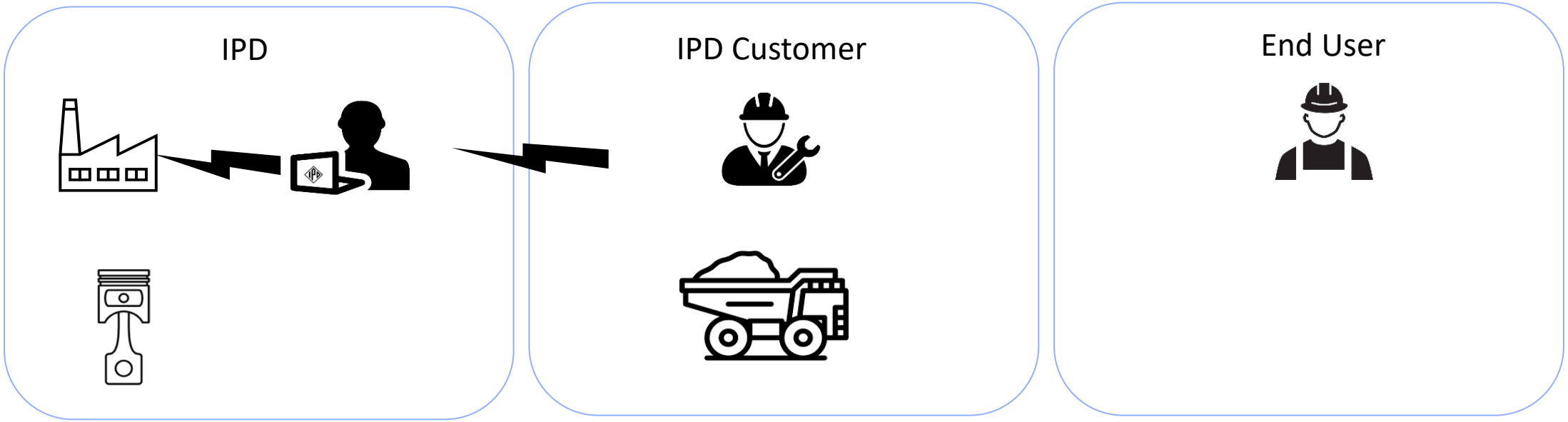
IPD Since 1955

Traditional parts manufacturing and distribution



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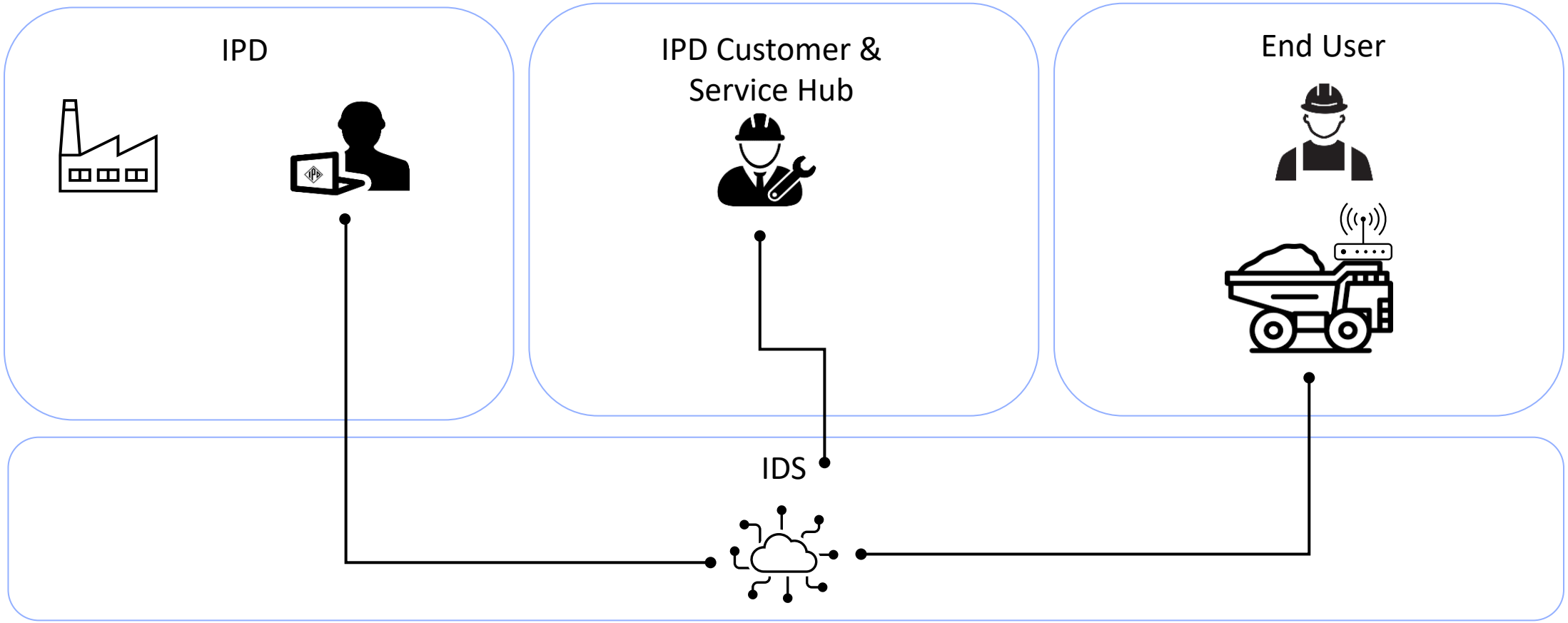
IDS Brings In New Opportunities

Following our parts to the last mile



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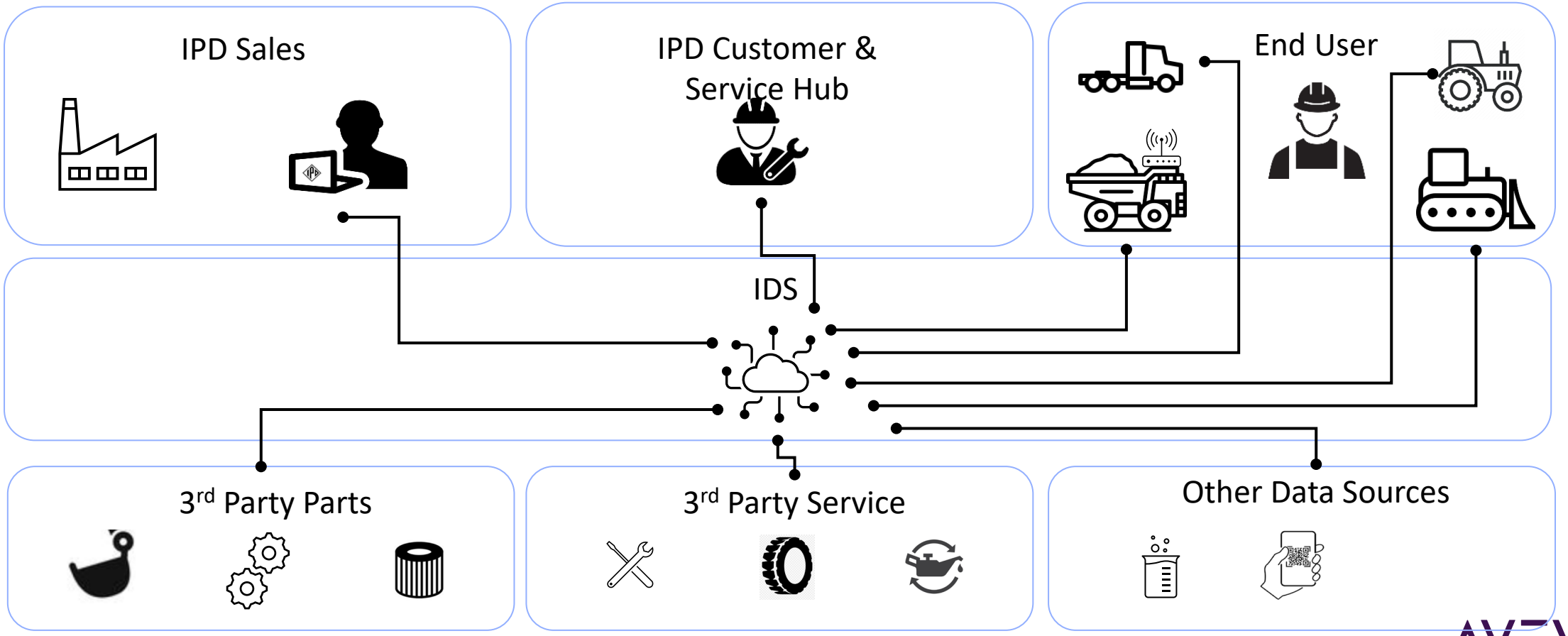
IDS MachineRx Platform Future

What does the future look like?



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What Problem Are We Solving?

- Finding the “Goldilocks” solution for the small-mid sized fleet market

OEM Solutions

Complex integrations

Difficult to understand

Focused on one-make fleets

Optimized for large fleets

Current Aftermarket Solutions

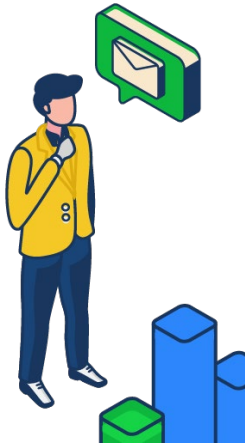
Generic fault codes

No engine/machine/vehicle expertise

On highway truck location tracking

No service channel

Raw data difficult to understand



IDS Solution

Simple integration

Integrated service channel

All makes all models

Utilize rebuilders and trusted partners

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Business challenge addressed

- **Large, underserved market – small to medium-size fleets**
  - Small to medium-sized truck fleets in USA represent 50% of total market
  - Off-highway CAT alone has >3.5M units in the field
  - IPD is uniquely positioned to access this fragmented market

- **Provides a solution previously only available to large fleets**
  - Existing affordable products deliver an incomplete solution
  - No “industry standard” exists

- **Leverages IPD to create new recurring revenue streams**
  - Not just existing but new customers (OE-agnostic)

- **How does IPD and IDS deliver this next tech product?**
  - IDS partners with Casne to deliver world class solution

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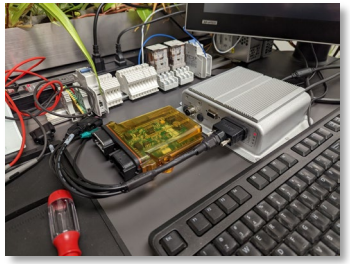
System Architecture Overview (10,000 ft) MACHINE RX



MRX-LINK

4G LTE

AVEVA

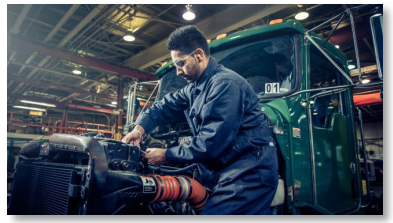
CLOUD DATA

AWS ECS Grafana

WEB PORTAL

OPERATOR

OWNER/MANAGER



SERVICE PROVIDER

cdl
fault code
sae edge
j1708 lte
j1939
cloud

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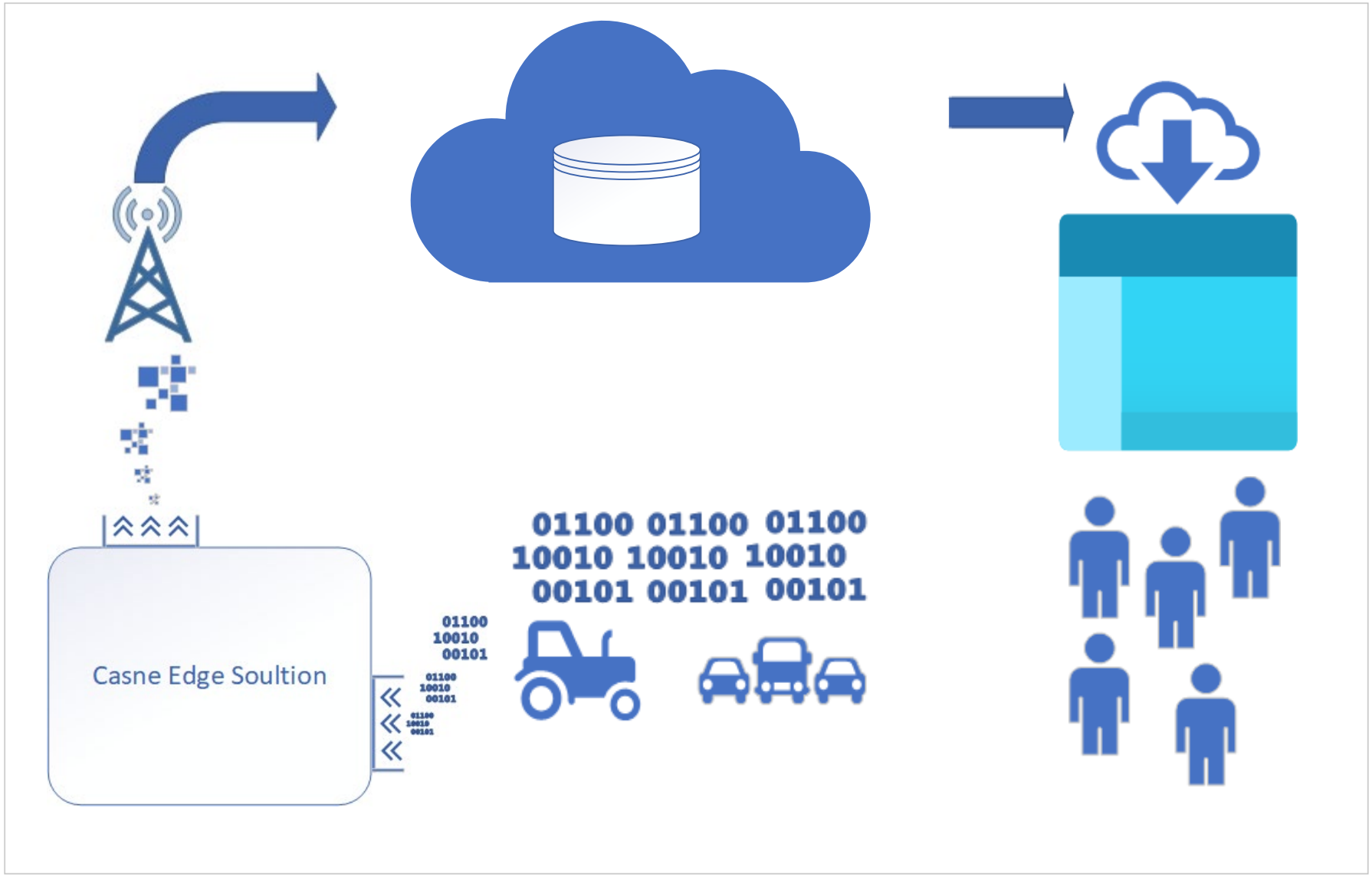
Concept Design



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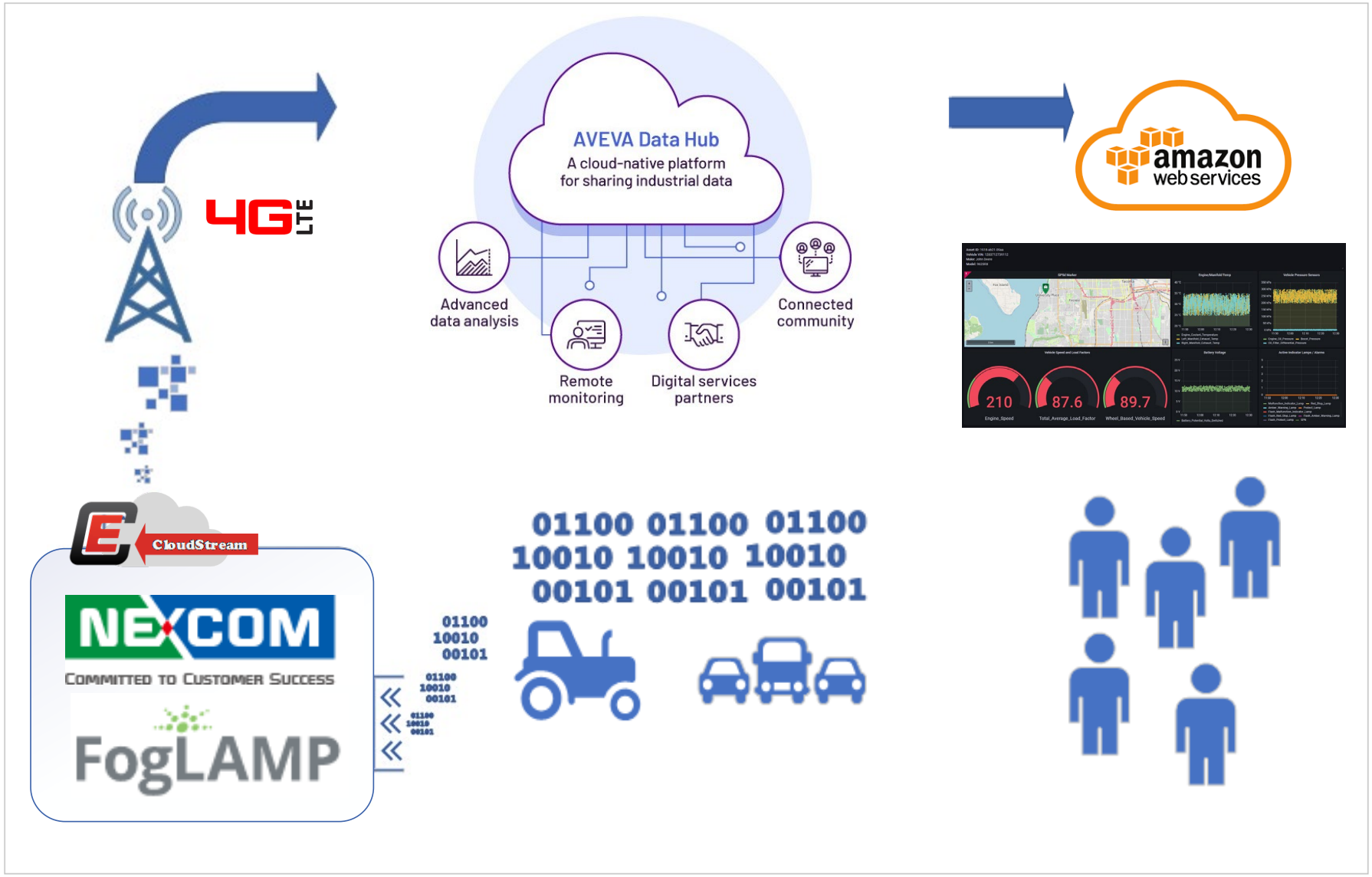
Physical Design



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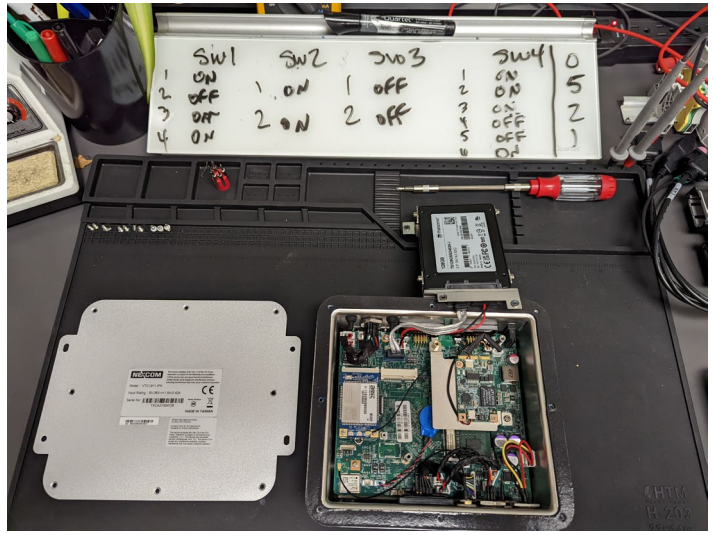
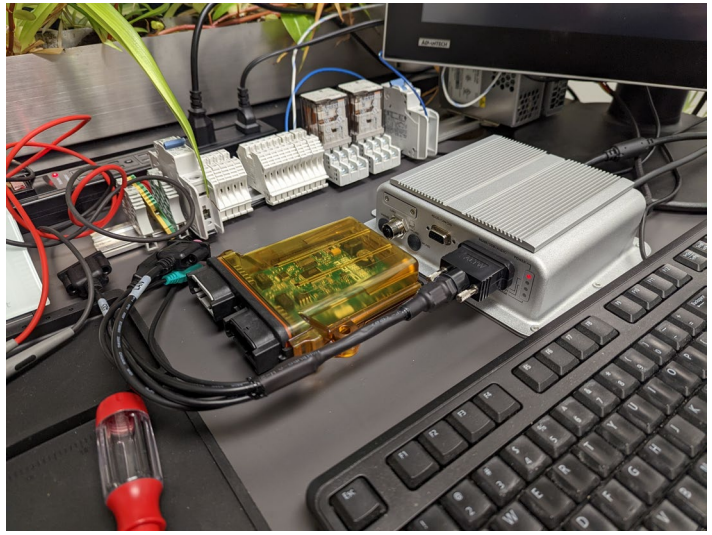
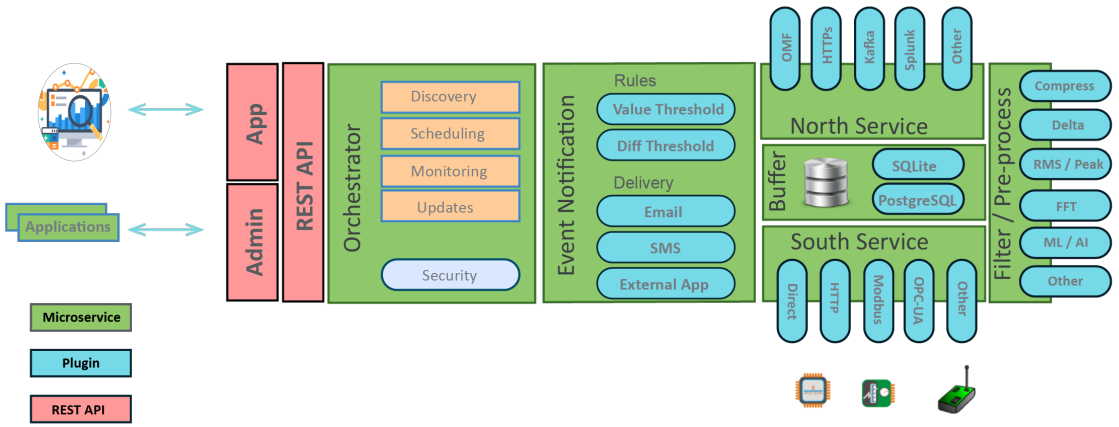
Putting it all together…..





FOGLAMP
ARCHITECTURE



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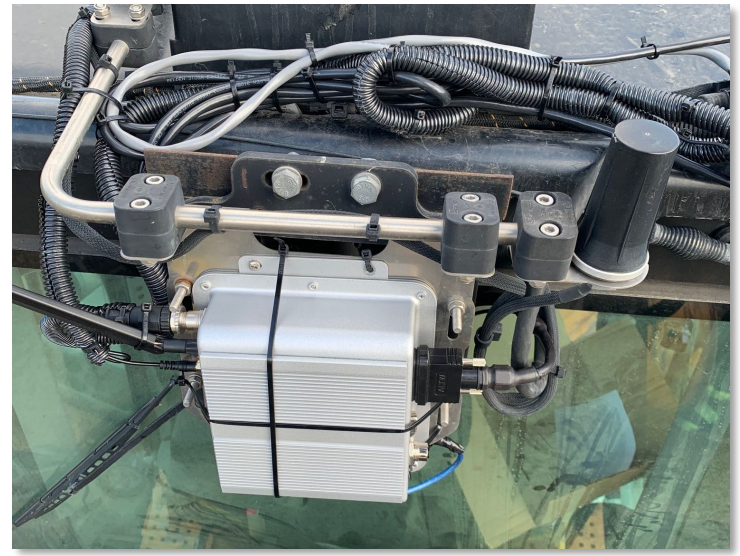
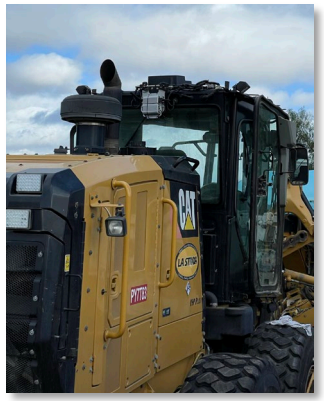
MachineRx Alpha Units

Customer Profile:

- Privately owned construction fleet
- Located in Southern California
- Fleet moves approx 100 mile range
- 98 units
- 55 on-highway trucks
- 43 off-highway machines
- Mixed fleet makes/models
- Primary concerns:
  - Fuel cost
  - Downtime
  - Productivity





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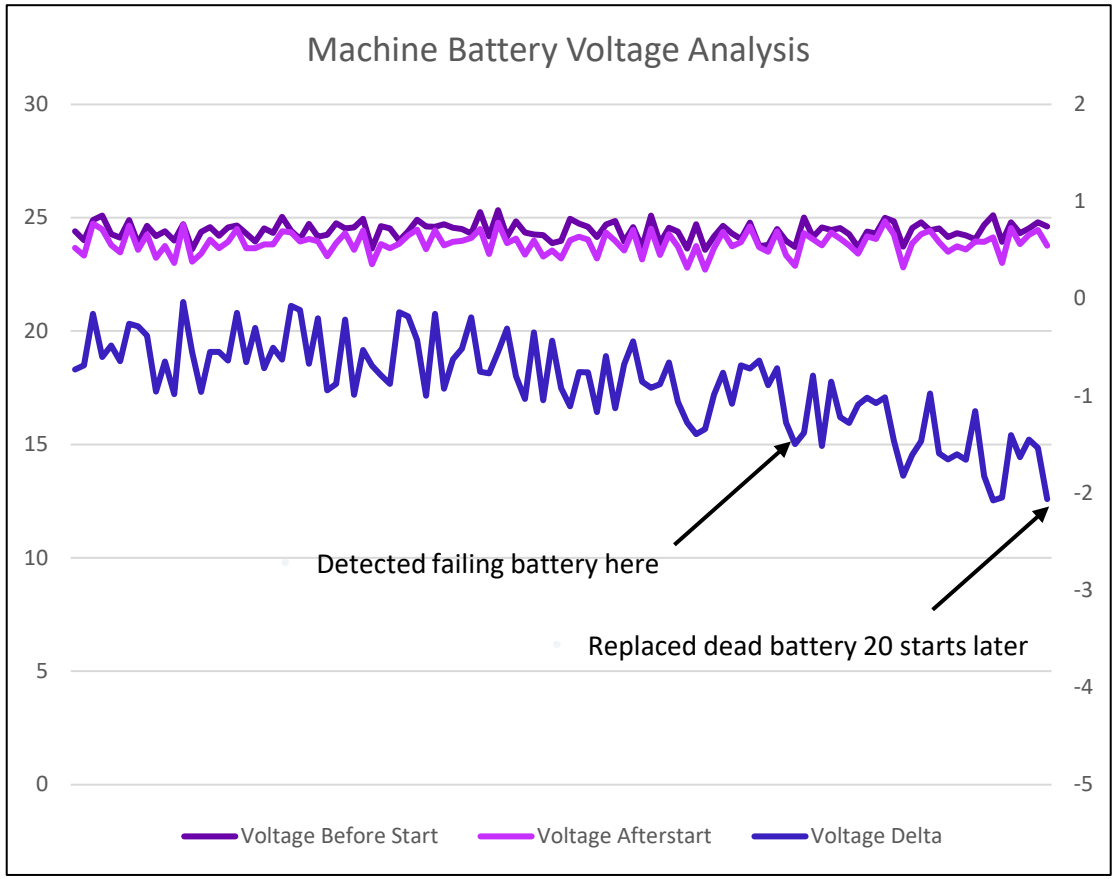
Impact: Creating actions from data

- Putting data into the cloud is one thing
- Making useful conclusions is another
- Alpha units in the field since Jan 2022



Reduce Fuel Costs -- Increase Productivity -- Reduce Downtime

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Potential Savings Impact

Reduced fuel costs

- 5% reduction in fuel used (reduced idle time, + fuel system optimization) equals $33/day savings or **$670/month per asset**

- Decreased downtime
  - Unplanned downtime equals a loss of $5k per hour and 25% reduction in downtime equals savings of **$335/month per asset**
- Increased productivity
  - 2.5% increase in productivity in additional work done equals additional **$415/month per asset**

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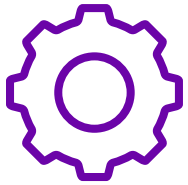
TRANSPORTATION

Real Time Fleet Analytics with Aveva Data Hub

IDS INDUSTRIAL DIGITAL SOLUTIONS

CASNE



Challenge

- Providing state-of-the-art real-time monitoring and analytics capabilities for small to mid-sized fleets. Digital transformation of old school machinery.

Solution

- Deployed ruggedized Intel based edge solution to push data to the AVEVA Data Hub where it is centralized and sent to visualization platform for end user.

Benefits

- Increased productivity, reduced downtime, decrease theft, and reduced fuel costs for used assets in the transportation, equipment, construction, and mining markets.

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Questions?

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State your name and company.

Please remember to…

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

Thank you!

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