

Expanding the value of PI System with IOT

Presented by
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WHO IS PTC?

\$1.2B software company,
headquartered in Boston, MA

6,000 employees

28,000 active customers across all
industries

Trusted partner to world leading
manufacturing companies



The Industrial IoT



Industrie 4.0

Smart Manufacturing

Made in China 2025

“33% of IoT economic value will come from the “factories” setting.”

– McKinsey Global Institute, 2015

“Manufacturing operations is the IoT use case that will see the largest investment.”

– IDC, 2017

46%

Evaluating and/or
Investing in IoT
Pilots

Source: Penton Media 2017

75%

Expect to Invest in
IoT in the next 12
months!

Source: LNS Research 2016

86%

of pilot IoT
projects met or
exceeded
expectations

Source: Penton Media 2017

IoT IS RAPIDLY BEING ADOPTED IN THE FACTORY

Business Outcomes

Process
Efficiency

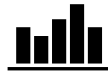
Asset
Health

Safety &
Security

Energy
Use

Quality

Regulation



Application Enablement, Analytics, Augmented Reality, Integrations



Sensors



Actuators



Intelligent Motor Control



Controllers

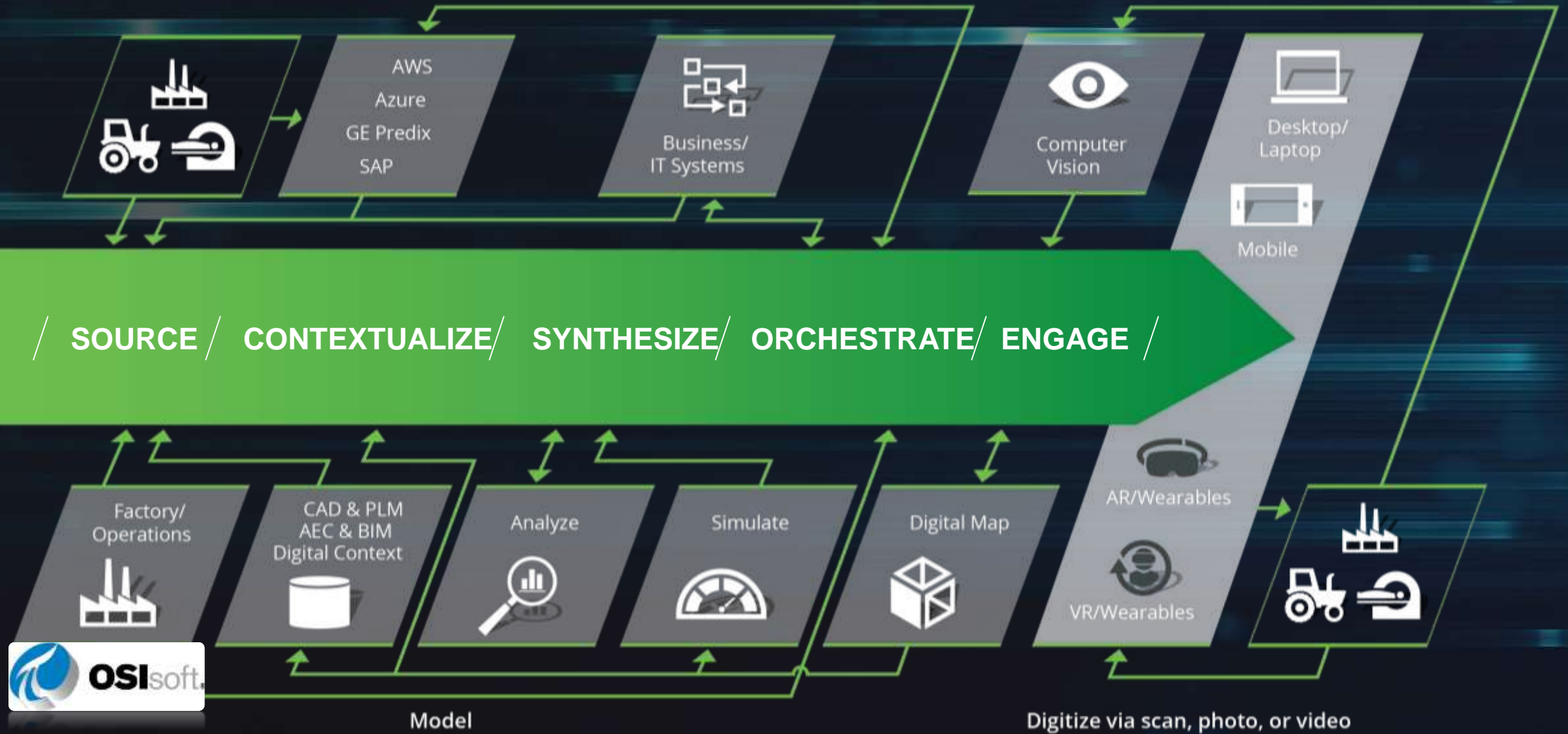


Terminals

**SMART
DEVICES**



**SMART
MACHINES**



FASTER TIME TO MARKET WITH ECOSYSTEM PARTNERS



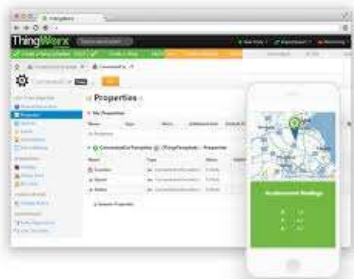
**Hewlett Packard
Enterprise**



Asset
Health
Monitoring



High End
Edge
Computing

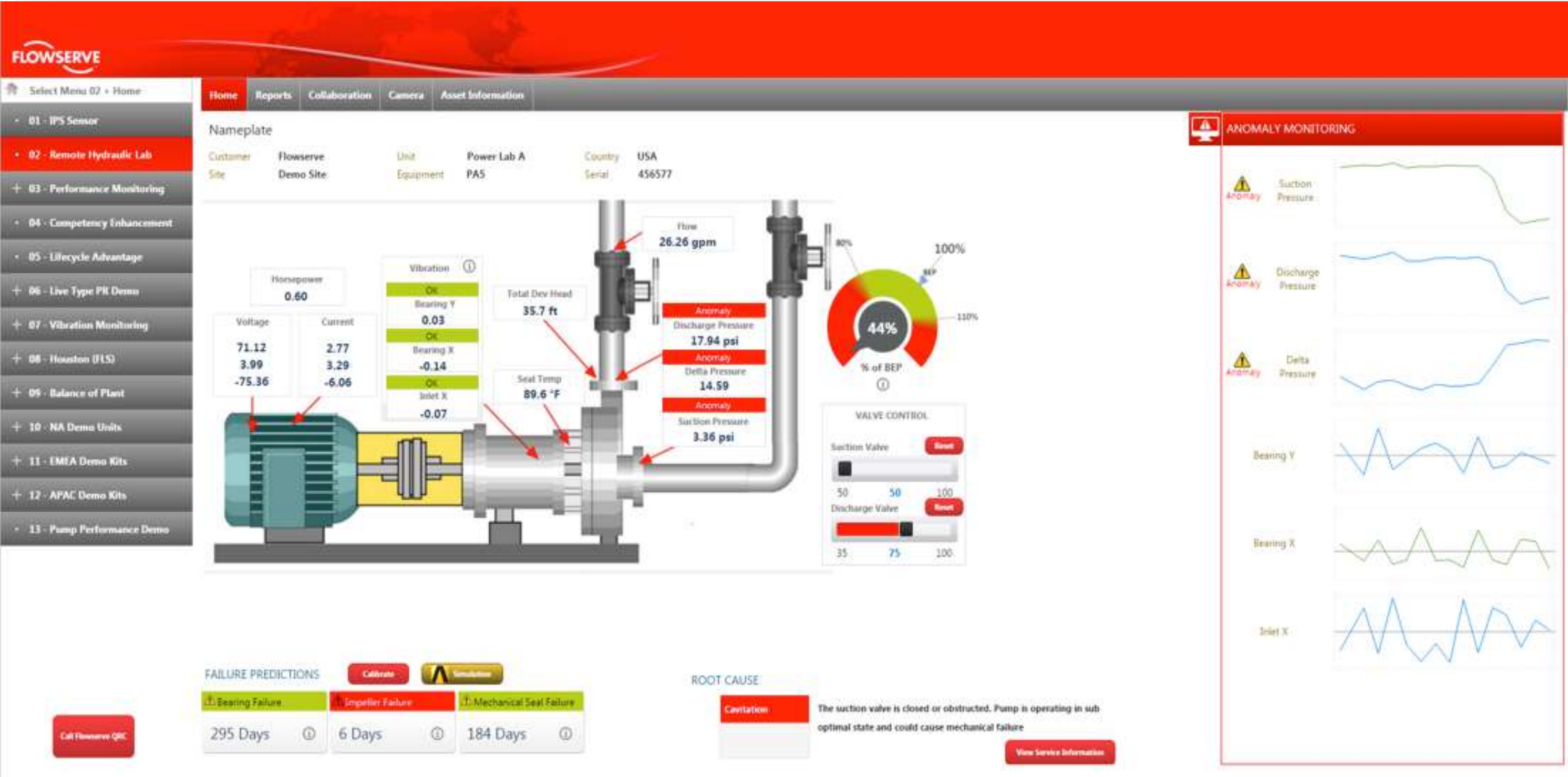


Predictive
Analytics



Data
Infrastructure

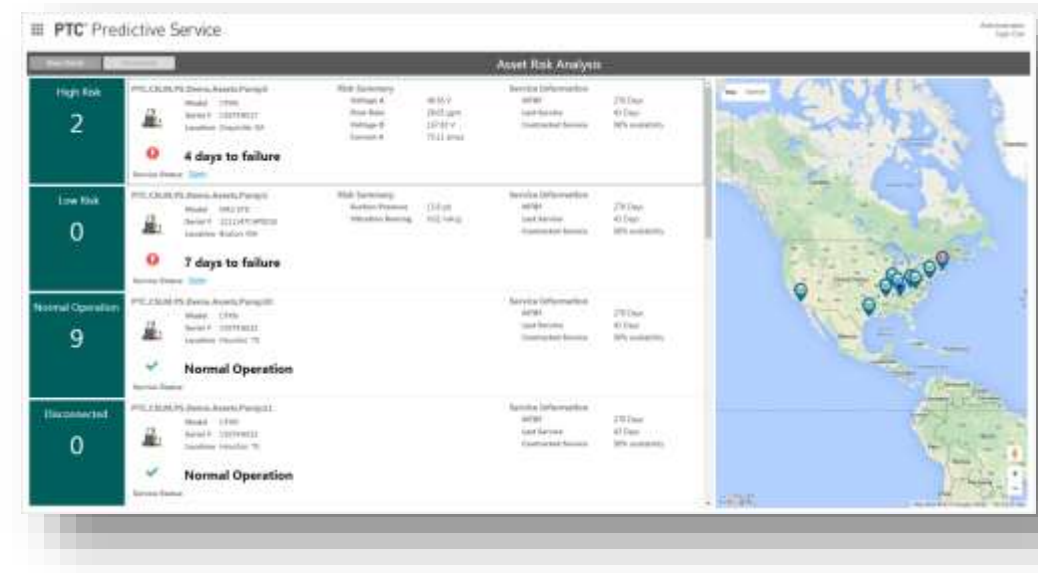
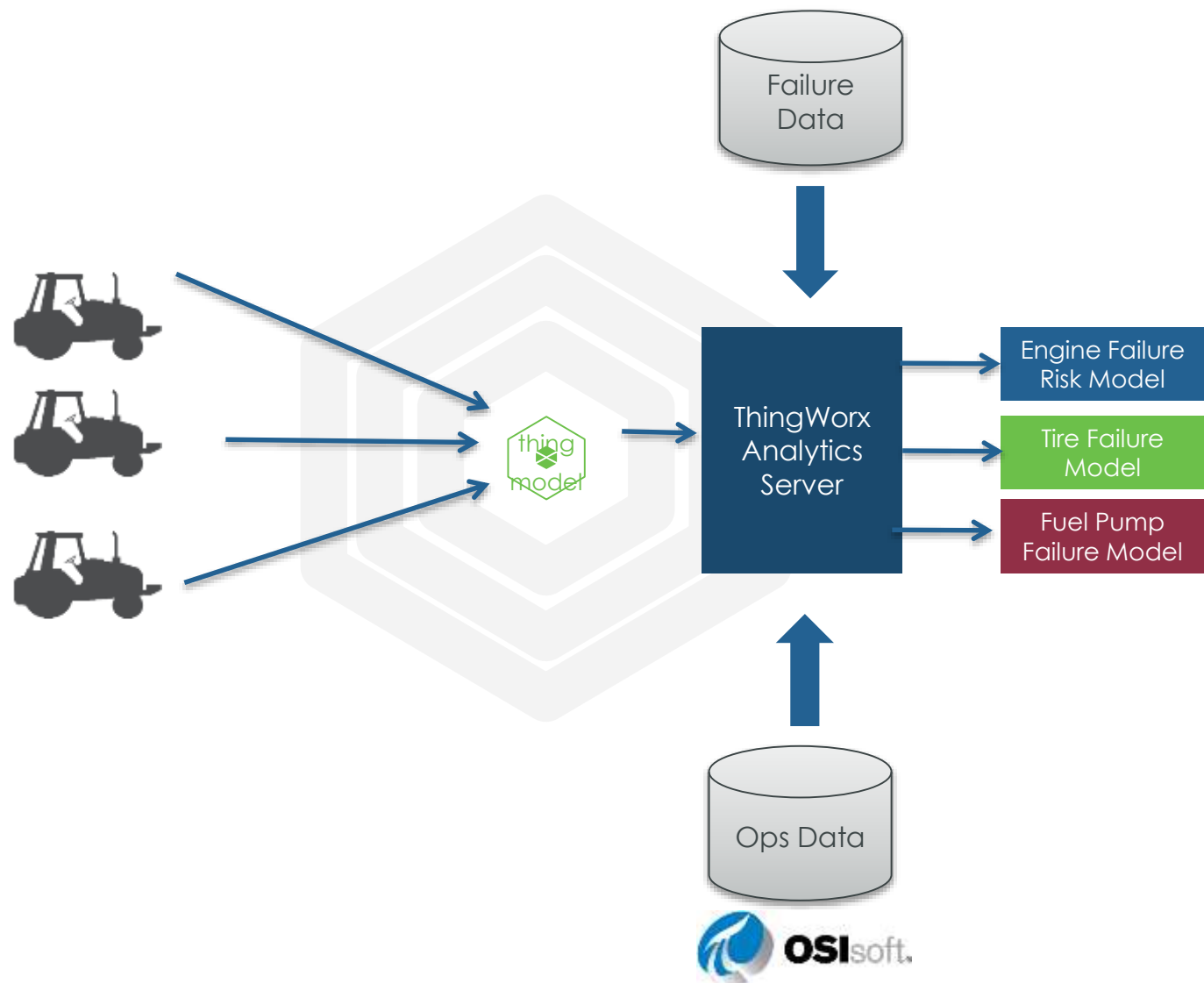
PREDICTIVE ANALYTICS APPLICATION



#1 RAPID APPLICATIONS



#2 PREDICTIVE ANALYTICS



ID = 4242		12%	2%	72%
ID = 1101		32%	13%	6%
ID = 9993		5%	72%	6%

#3 AUGMENTED REALITY EXPERIENCES



thingworx® studio

thingworx® view

ENABLING TIMELY DATA DRIVEN DECISIONS



Rapid time to value with 6 weeks IoT sprints





PTC Manufacturing IoT Proven Value

10-20%

Reduction in
unplanned
Downtime

5-8%

Improvement in
Productivity

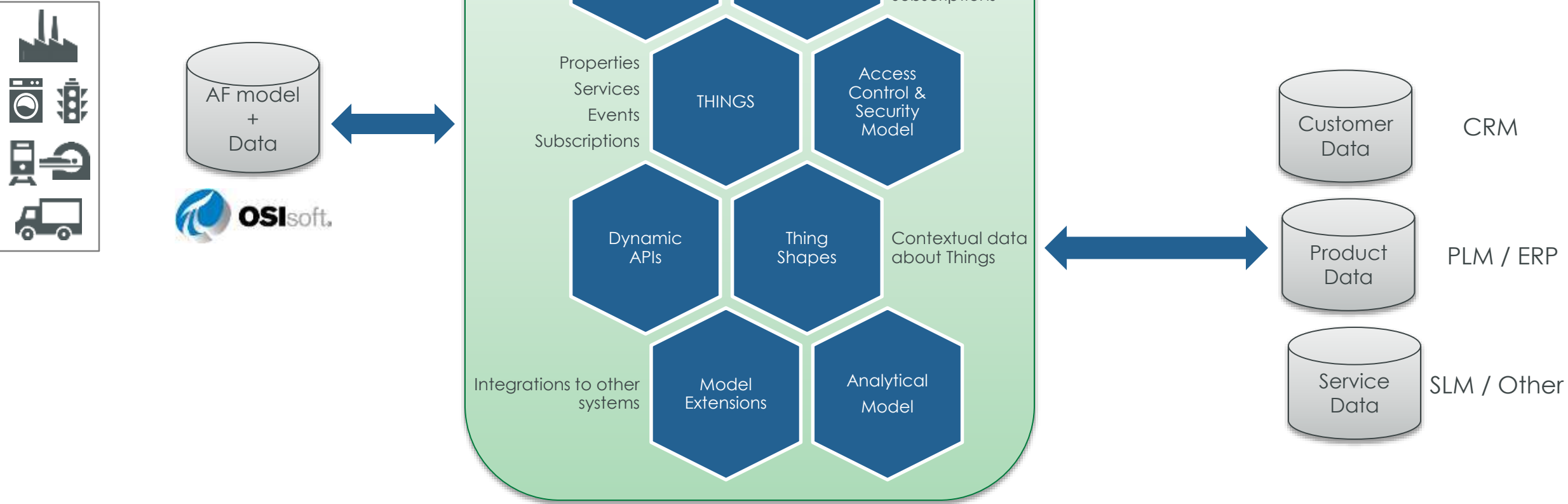
91%

Accuracy
Predicting failures 1
day in advance

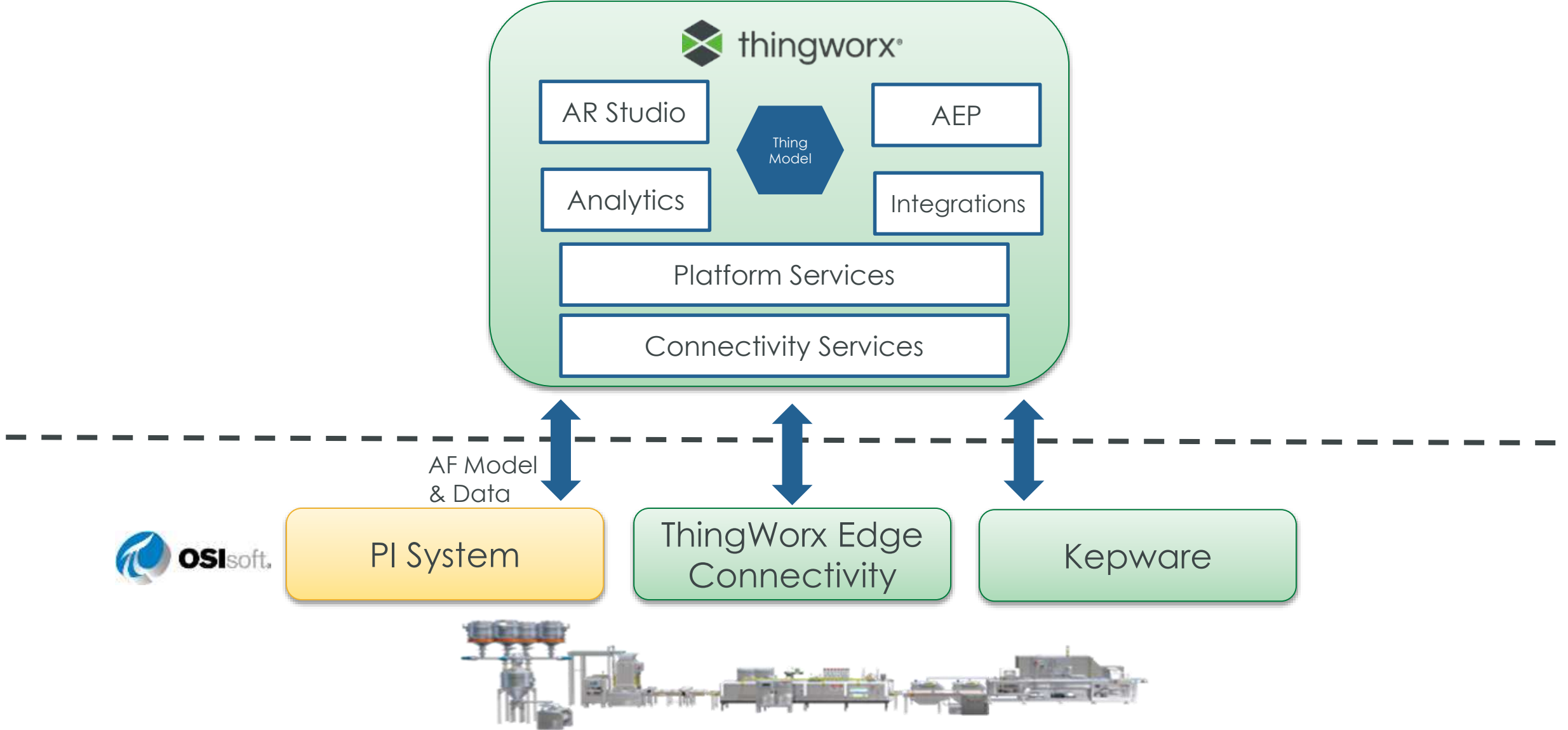
2-5%

Increased OEE

THING MODEL



PI SYSTEM INTEGRATION

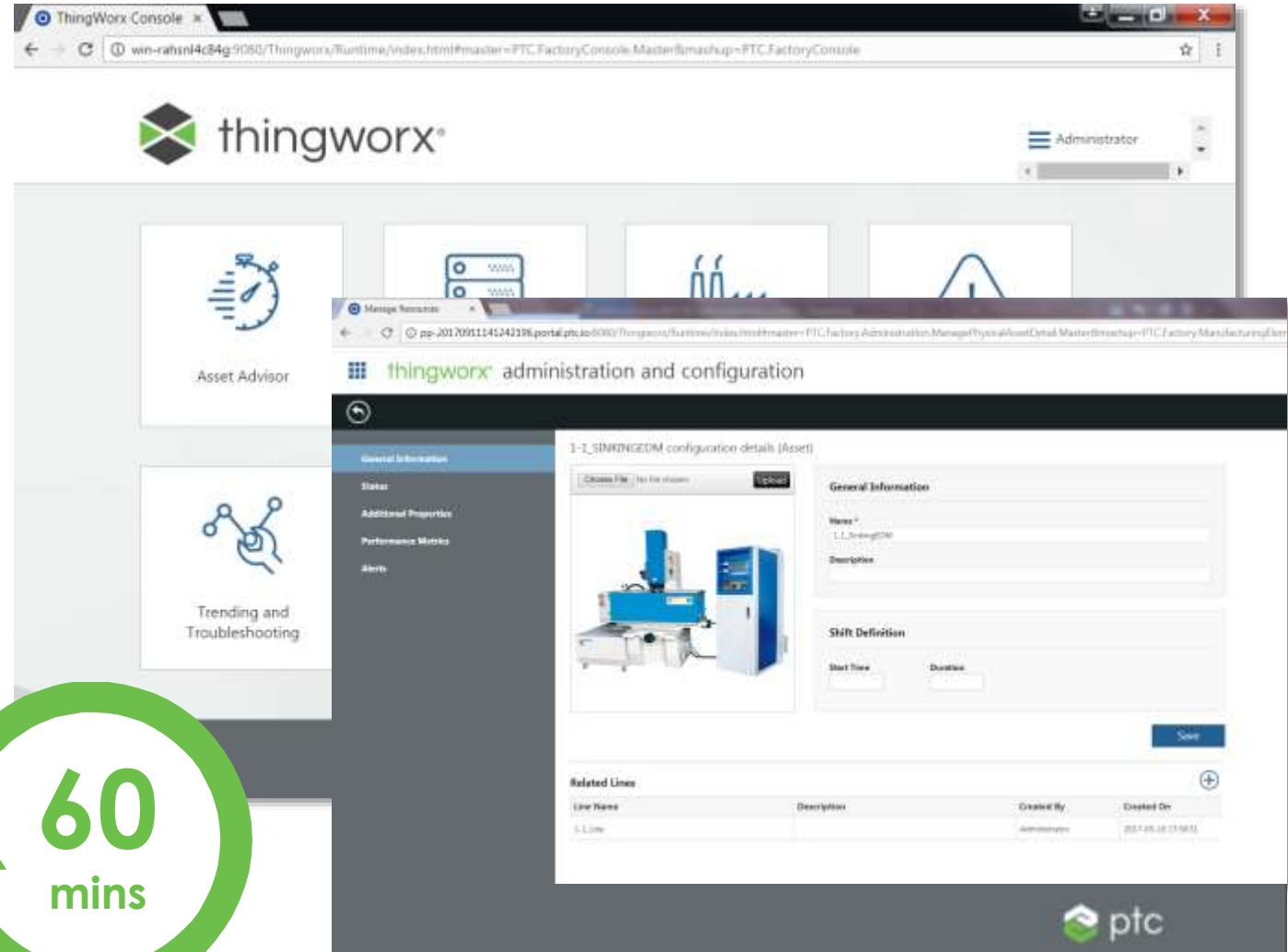


STAY TUNED - THINGS ARE GETTING FASTER



THINGWORX MANUFACTURING APPS

- Fast to deploy
- Fast to configure
- Role-based insight
- Flexible to evolve
- Built on ThingWorx
- Easy to try and buy



THINGWORX MANUFACTURING APPS

Transform your performance by giving your operations teams unprecedented capabilities to see, understand and act in real time. ThingWorx manufacturing apps accelerate your time-to-value and offer unmatched flexibility.

ThingWorx Production Advisor



Plant Manager



ThingWorx Asset Advisor



Maintenance



ThingWorx Controls Advisor



Controls Engineer



DEMONSTRATION

Contact Information

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감사합니다

谢谢

Danke

Gracias

Merci

Thank You

ありがとう

Спасибо

Obrigado