

The OSIssoft Marketplace

Your next transformation, one click away.

The screenshot shows the OSIssoft Marketplace interface. At the top, a banner reads "Welcome to OSIssoft Marketplace" with the tagline "Discover partner solutions to help accelerate your digital transformation". Below this is a navigation bar with "Home" and "Find a Solution" options. The main content area is a grid of solution cards. A callout box is overlaid on the right side, focusing on the "ThingWorx IOT Application Enablement Platform" by PTC Inc. This callout includes the ThingWorx logo, the product name, the provider name "PTC Inc.", and two buttons: "TRY NOW" and "REQUEST A DEMO". Below the callout, there is an "Introduction" section and a "Business Impact" section.

Introduction

The Internet of Things (IoT) is a new world with unique challenges for developers, enterprises, and end-users alike as they seek to create, deploy, and integrate IoT technologies and solutions. As they enter the expanding IoT market and start developing their own smart, connected products and applications, developers must establish a new technology infrastructure. Implementing the use of a ready-built IoT platform enables developers to easily connect devices and establish connections to related applications, information systems, and operational assets. Current OSIssoft customers are looking to leverage their investments in the rich data infrastructure and connectivity while looking to use an IoT platform for rapid end-to-end solution development.

Business Impact

Model-driven, rapid application design functionality eliminates the need for manual coding and flexible connectivity options minimize integration work. An end-to-end model simplifies security. With out-of-the-box extensibility and the largest ecosystem of partners, ThingWorx Foundation

<https://partners.osissoft.com/solutions/solution/184/thingworx-iot-application-enablement-platform>



Extending Value of OSIsoft PI System with IoT

Presented by **Manish Yashvant**
IoT Strategic Alliances





Manish Yashvant

Dir., IoT Strategic Alliances

ThingWorx / PTC

Experience:

- 3+ years in IoT Solutions
 - 20 years in Product Development / Enterprise Software
-
- Strategic Alliances
 - Business Development
 - Business Process Transformation
 - Sales Engineering / Solutions Architect
-
- BSME, MSIE



Connected Sensors, Devices, Machines



Connected Applications...to unlock the value of IoT

7 Billion
2010

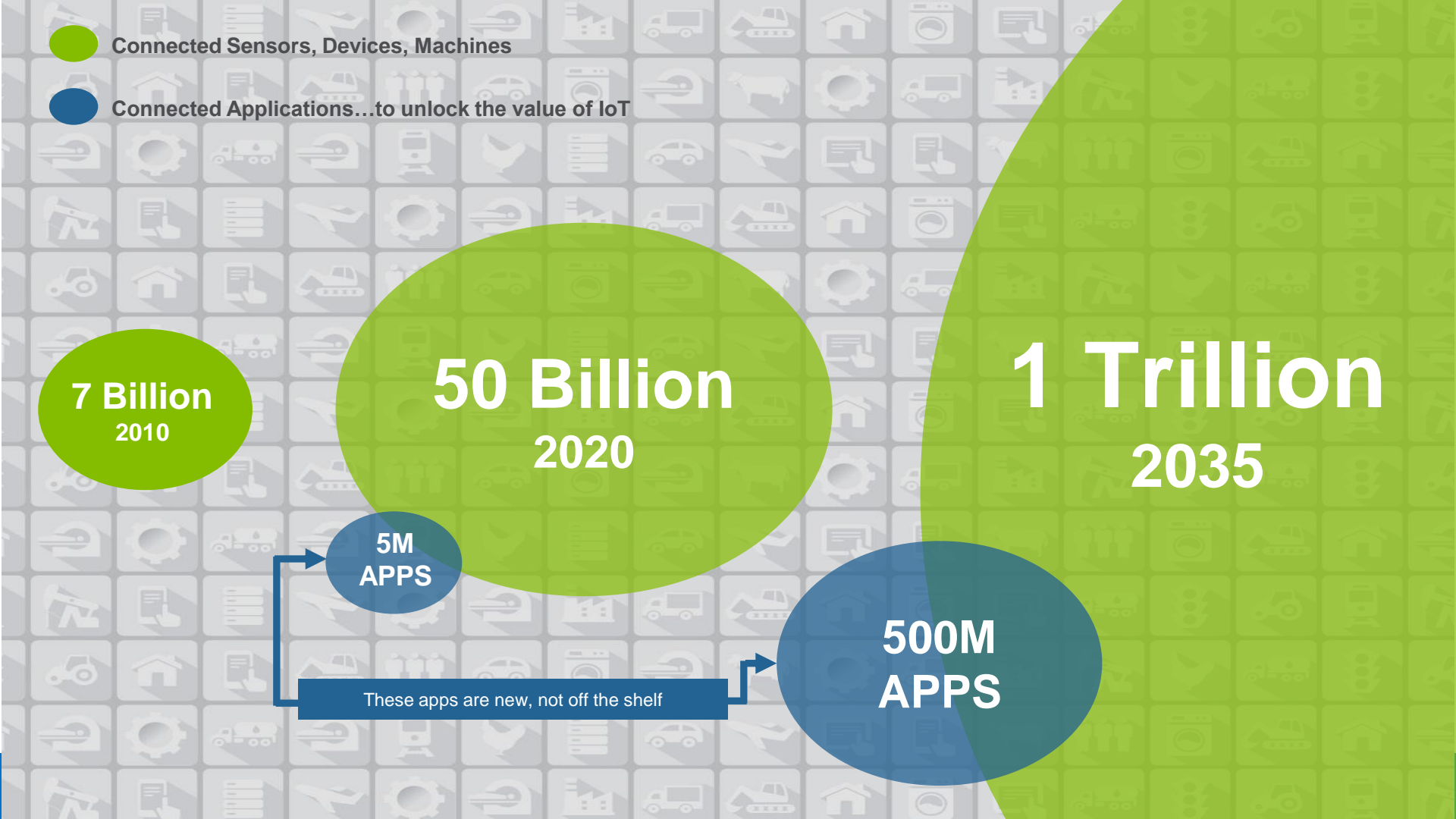
50 Billion
2020

1 Trillion
2035

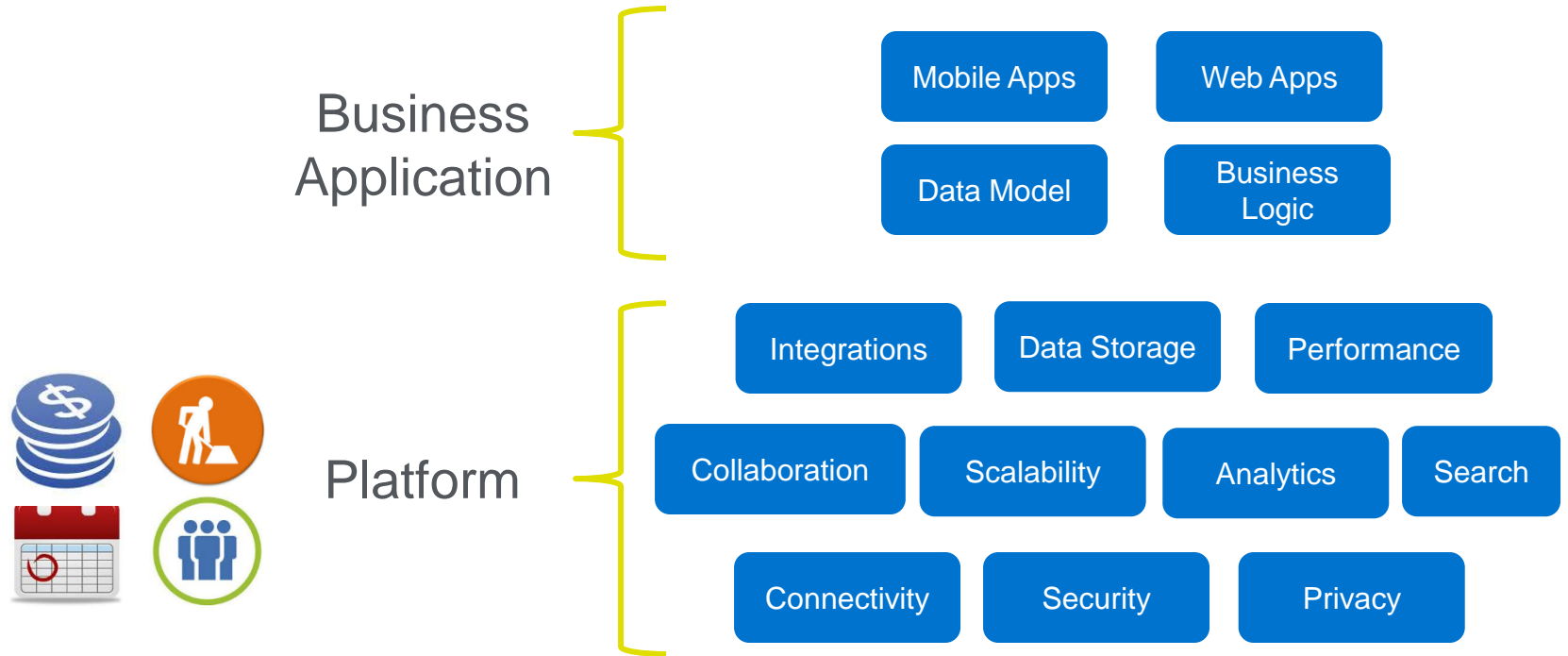
**5M
APPS**

**500M
APPS**

These apps are new, not off the shelf



Building IoT Solutions





Customers



Employees



Partners

Applications, Solutions & Business
Systems



ThingWorx[™]
A PTC Business

Connect | Analyze | Create | Experience

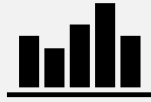


Complete iot platform capabilities



CONNECT

- Device Cloud Connector SDK
- Industrial Protocol Drivers (Kepware)
- Industrial-to-Application Thing Modeling (Kepware Integration)



ANALYZE

- ThingWatcher
- ThingPredictor
- ThingOptimizer
- Analytics Builder



IMPLEMENT

- UI Builder for Web, Mobile, AR
- Visual Application Modeling
- Run-time Services
- Edge Intelligence



MANAGE

- Asset Provisioning & Management
- Software & Content Management
- Visual Alert & Rules Management



EXPERIENCE

- Leverage rich 3D animation and IoT data for experience creation
- ThingMarks for unique AR experiences for each associated device
- ThingWorx Studio for visualization



SCALE

- Enterprise-ready Deployment Architecture
- Millions of connected devices



SECURE

- Advanced Device Identity and Authentication
- Platform-Wide Identity Management

ThingWorx Composer –Rapid Application Development

The screenshot displays the ThingWorx Composer interface for a project named 'AcmeTractor.Home'. The interface is divided into several sections:

- Left Panel:** A 'Widgets' list with a search bar and a 'Markup' editor window showing a tree view of the application's structure.
- Center Panel:** A design canvas showing a dashboard layout. It includes a 'Plant Address' section with a map of North America, a 'Plant Manager' section with a dropdown menu, and a 'Production' section with five large digital displays showing '000' for 'Production', 'Scrap', 'True Efficiency', 'OEE', and 'First Pass Yield'. A 'Weather' widget shows a sun and clouds icon with '0.0' and 'Sunny/Partially Cloudy'.
- Right Panel:** A 'Properties' pane for the selected widget, showing various configuration options.
- Bottom Panel:** A 'Connections' pane showing a flow diagram with nodes like 'Things_AcmeTractor_Cincinnati', 'ThingsPlayButton', 'All Data', and 'Markup', connected by arrows.

Application built with thingworx



Edge & Predictive Analytics

FLOWSERVE

Home | Reports | Collaboration | Camera | Asset Information

Select Menu 02 + Home

- 01 - IPS Sensor
- 02 - Remote Hydraulic Lab
- + 03 - Performance Monitoring
- 04 - Competency Enhancement
- 05 - Lifecycle Advantage
- + 06 - Live Type PR Demo
- + 07 - Vibration Monitoring
- + 08 - Houston (FLS)
- + 09 - Balance of Plant
- + 10 - NA Demo Units
- + 11 - EMEA Demo Kits
- + 12 - APAC Demo Kits
- 13 - Pump Performance Demo

Nameplate

Customer	Flowserve	Unit	Power Lab A	Country	USA
Site	Demo Site	Equipment	PAS	Serial	456577

Flow
26.26 gpm

Horsepower
0.60

Voltage	Current
71.12	2.77
3.99	3.29
-75.36	-6.06

Vibration

Bearing Y	OK
Bearing X	OK
Inlet X	-0.07

Total Dev Head
35.7 ft

Seal Temp
89.6 °F

Discharge Pressure
17.94 psi

Delta Pressure
14.59

Suction Pressure
3.36 psi

% of BEP
44%

VALVE CONTROL

Suction Valve

Discharge Valve

FAILURE PREDICTIONS

Bearing Failure 295 Days	Impeller Failure 6 Days	Mechanical Seal Failure 184 Days
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[Call Flowserve QRC](#)

ROOT CAUSE

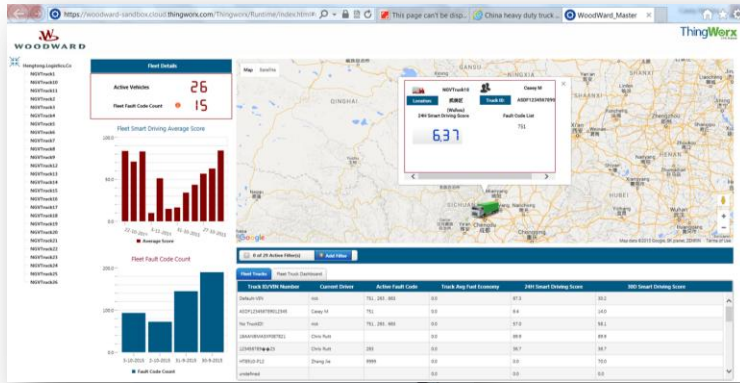
Cavitation The suction valve is closed or obstructed. Pump is operating in sub optimal state and could cause mechanical failure

[View Service Information](#)

ANOMALY MONITORING

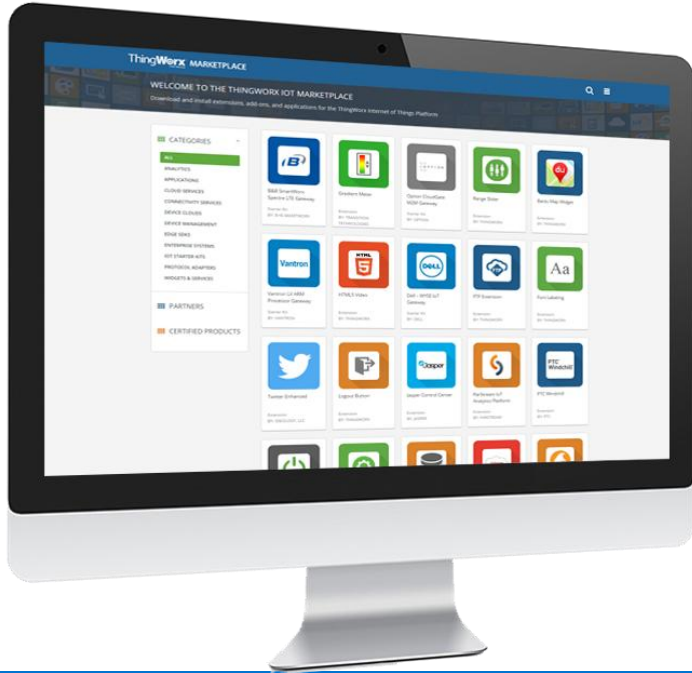
- ⚠ Suction Pressure
- ⚠ Discharge Pressure
- ⚠ Delta Pressure
- Bearing Y
- Bearing X
- Inlet X

MVP Pilot in 30 Days



What is the THingWorx Marketplace?

The single source for 3rd party IoT solutions, technologies, and services built-on or specifically for the ThingWorx Platform.



- ✓ Targeted at both solution builders and buyers
- ✓ Resources to accelerate IIoT solution deployment and go to market
- ✓ Showcase of partner and developer created solutions, extensions, services and development tools for ThingWorx.



Process Efficiency

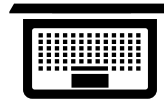
Asset Health

Safety & Security

Energy Use

Quality

Regulation



SMART MACHINES



Sensors



Actuators



Intelligent Motor Control



Controllers



Terminals

SMART DEVICES

OSIsoft – PTC System Architecture for Connected Operations

ThingWorx Analytics

Thingworx Studio (Augmented Reality)

ThingWorx Utilities

thingworx® Foundation

Enablement Services

Composer

Mashup Builder

REST API

Platform Services

Security

Logic

Modeling

ThingWorx Connection Services



PI System

TW Edge Capabilities

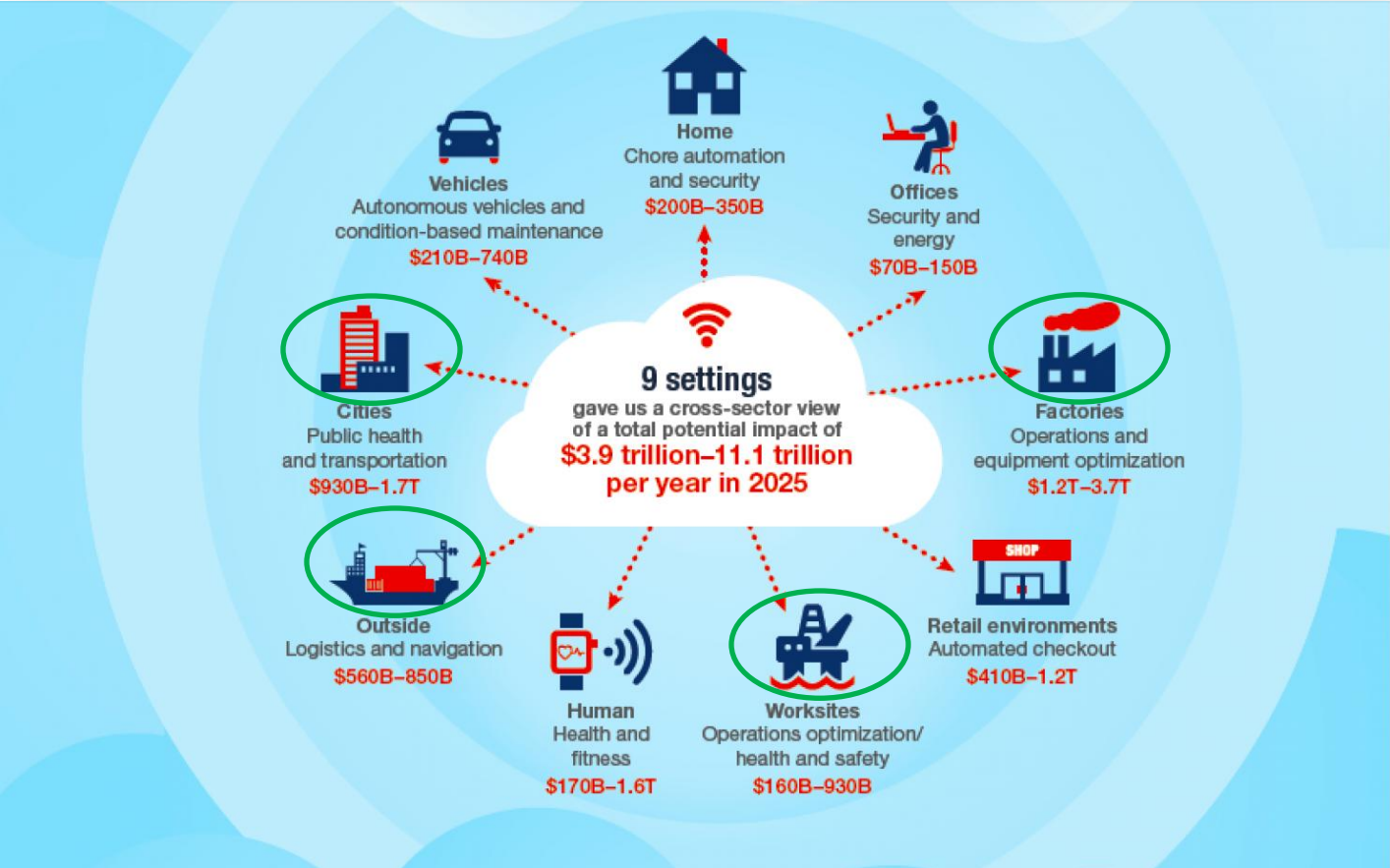
Kepware



Faster time to market with ecosystem partners



Areas of greatest Impact





Remote Service

Mining as a Service



Optimized Operations

Demonstration



thingworx®

Questions

Please wait for the **microphone** before asking your questions



State your **name & company**

Please remember to...

Complete the Online Survey for this session

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HTML

search OSISOFT in the app store

<http://bit.ly/uc2017-app>

Contact Information

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감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado