OSIsoft®

USERS CONFERENCE 2016

April 4-8, 2016 | San Francisco

TRANSFORM YOUR WORLD

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We believe People with Data can Transform their world

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1.5B Sensors

>125 Countries

17,000 Sites

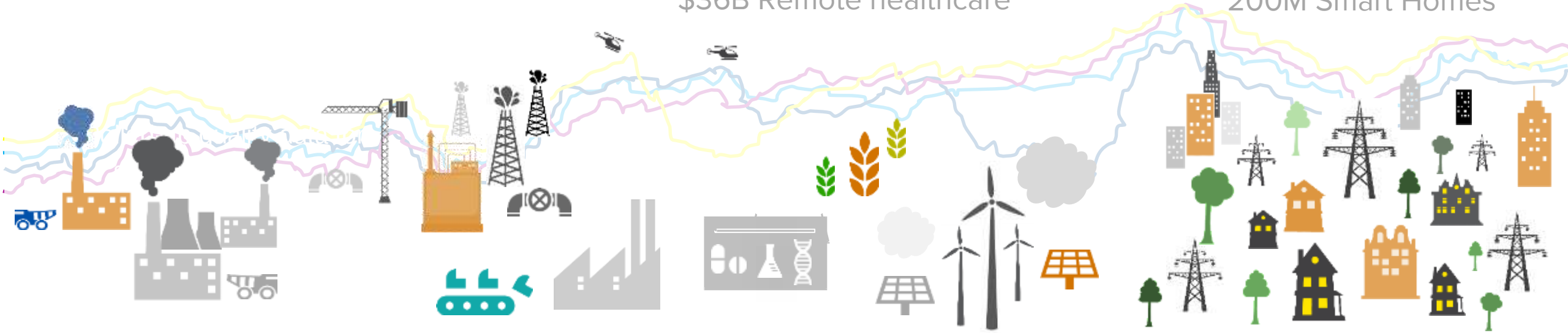
Technology Drivers	2020 Adoption	2020 $ Market
IIoT	50B devices	$25B
Big Data	15-20% CAGR	$61B
Security	5% CAGR	$28B

M2M 26B Units

6.6 Connected devices/person

$36B Remote healthcare

200M Smart Homes



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Opportunity: Transforming the Value of Data

1 | Data

Real-time Feeds

Boiler-209.Fuel Gas Flow DC.Srv01R 94:GRDIDX.Tr igger AC09.Power
GE01_DT 409510395_Wind Speed QI-109 GE01_DT Cooling Fan-711.Feed Rate
DM-05:BW.R DC.SJ.C1.Z1.R1.Rk06.S2.O03.PWR QI-111 FinalProductBin.On
94:GRDIDX.ProdID Boiler-209.Fuel Gas Flow fic1001.C
FR5001 1-8.Net Volume Coal Motor Load 02F100.TOT.EV 3LBA32CT001-
DC.SJ.PUE TI-102 DC.Zero DY-108 DC.SJ.C1.Z3.R3.PDU1.PF GE01_A_DT
403511195_Wind Speed DC.Srv01R Boiler-125.Fuel Gas Volume
1-16.Net Volume CB1992_MS 0_CMP_FLOW_TOTAL GE02_Energy
Anacortes Refinery.Alkylation.Asset Problems B210_FG005.KPIExcursion
FT9001 AlarmTest.Input.Float32.1 AQUA2-TI-201.PV DC.SJ.SiteRealTimeITLoad.PWR
FI-101 bf5e1d1d-39c9-4b5b-b3d3-c2ce05fa3a26 DM-05:BW.R AT401
0_CLR_FINAL_OUT_B_TMP F506_E990 339511775_Clear Sky Global Horiz GE01_DT
D-110.Tank Pressure.PV Boiler Feed Pump #1 FT9001
GE01_CON AlarmTest.Input.Float32.1 FIC-144 02F100 fasttag
FI-151 0_ENG_AUX_STS DC.C2Z1.Pwr.Ripple GE01_A_DT
02F102.1HRAVG BGT001 PI-111 facility_output FI-111
GE05_Energy C1:14AT5 1-8.Net Volume
AC03.Air Flow FeedBin.Cmt Coal Motor Load
Boiler Cold Reheat Pressure 02F100.TOT.EV
B737_FG117 DC.TimeLoad 03LBA32CT001-2
D-110.Tank Pressure.PV DC.SJ.ITLoad.PWR
GE04_DT QI-121 GE03_V_WIN TI-145 FR2001
DC.Rk07R DC.Srv06R TI-178 GE04_OS
GE04_Energy TI-121 FT9001 FT9001 FT9001
FAC.OAK.Power-Kh-Val.PV FR5001 AF_NOISE
FeedBin.Cmt DY-131
DC.Zone1.Number DC.SJ.PUE
fic1001.C
DailyTrigger GE02_OT
FrqPrbCost_ER GE01_DT

2 | Information

Real-time Decision Support

Weather Conditions

Relative Humidity:
34% Current Temp: 85
°F High: 92 °F
Low: 57 °F
Wind: 8 mph/N

Energy Efficiency

Downtime

Total Production

Crude Furnace

Draft Pressure: -0.5 WC
Stack Temp: 316 °F
Oxygen: 2.5%
Firebox Temp: 860 °F
Outlet Temp: 840 °F Cold
Oil Velocity: 6 ft/sec

3 | Intelligence

Business/Operation Analytics

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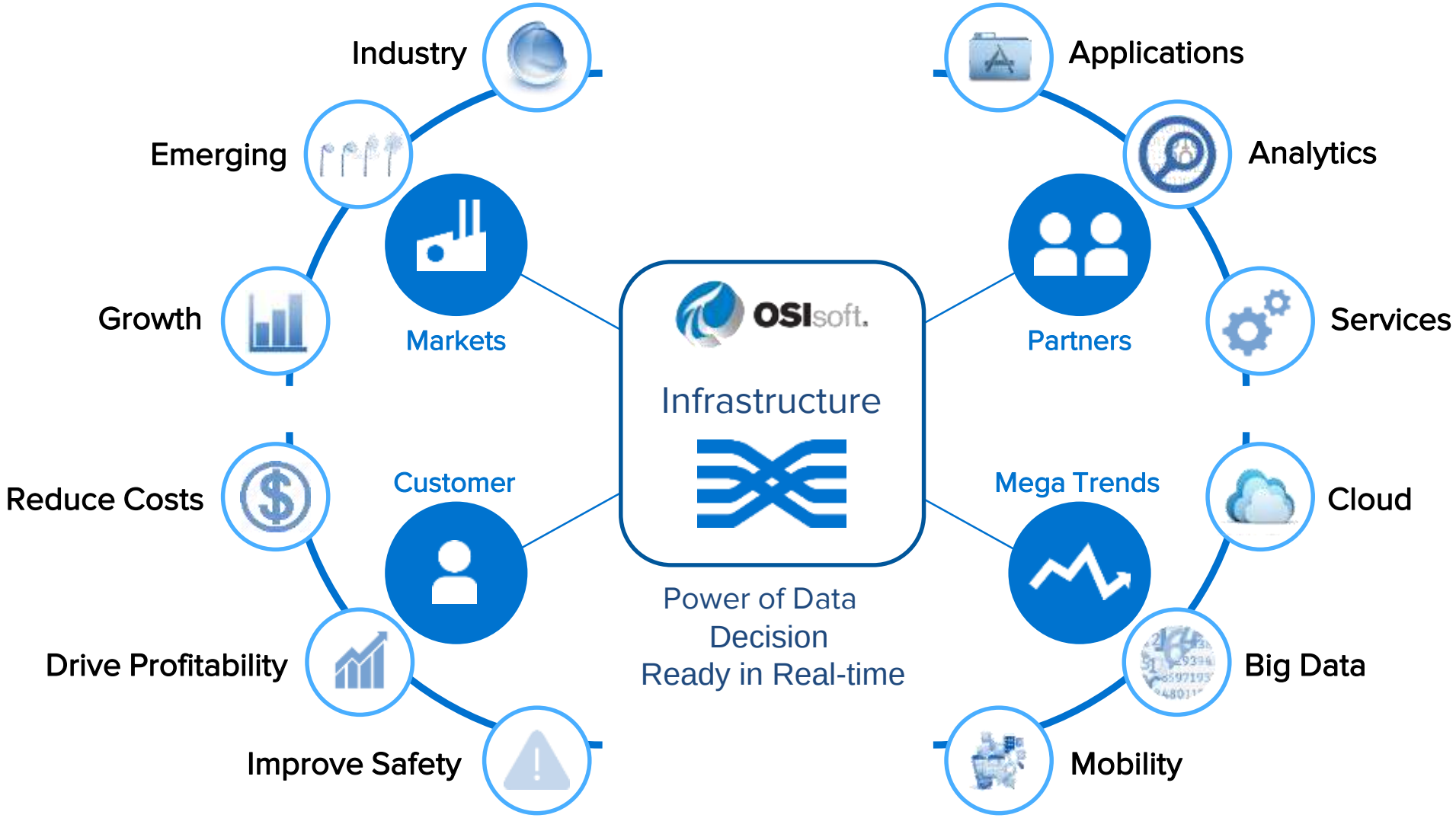
Infrastructure is at the core of our story…How is it applied?



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Data Infrastructure: For Your Journey

Processing

Process Efficiency

Maintenance

Asset Health

Equipment

Utilities

Energy

OSIsoft.

Infrastructure

Quality

Production

3rd Party Services

Regulators

Facilities

Safety & Security

Regulation

Environment

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Data Infrastructure:
An Agent for Business Transformation

Process Efficiency

Asset Health

Energy

OSIsoft.

Infrastructure

Quality

PETRONAS

Xce

LCO

Janssen

5 less plant shutdowns

$12M/yr/mine

O_2 savin

ved &

errors

$5-40M per

Saved 640M

ers water

1000+ less paper documents

Safety & Security

Regulation

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The Challenge

Executives

Engineers

USERS

IT/Data Scientists

Operations

EMERSON. YOKOGAWA Rockwell Automation Schneider Electric SIEMENS ABB Honeywell

waygum

Sensors Devices Assets Plant Enterprise Services

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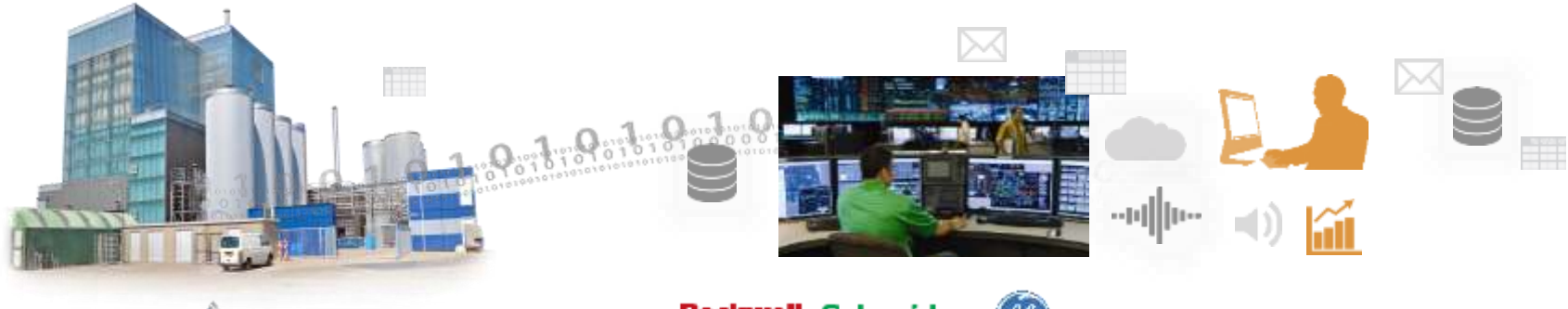
Data Infrastructure for Digital Transformation



BIG DATA

Application Ready
Real-time Decisions
IIoT for 35 Years
Operational Intelligence

EMERSON. YOKOGAWA Rockwell Automation Schneider Electric GE SIEMENS ABB Honeywell

Data Infrastructure

QUALCOMM CISCO intel DELL

SMART MACHINES

Sensors Actuators Intelligent Motor Control Controllers Terminals

SMART DEVICES

IoT

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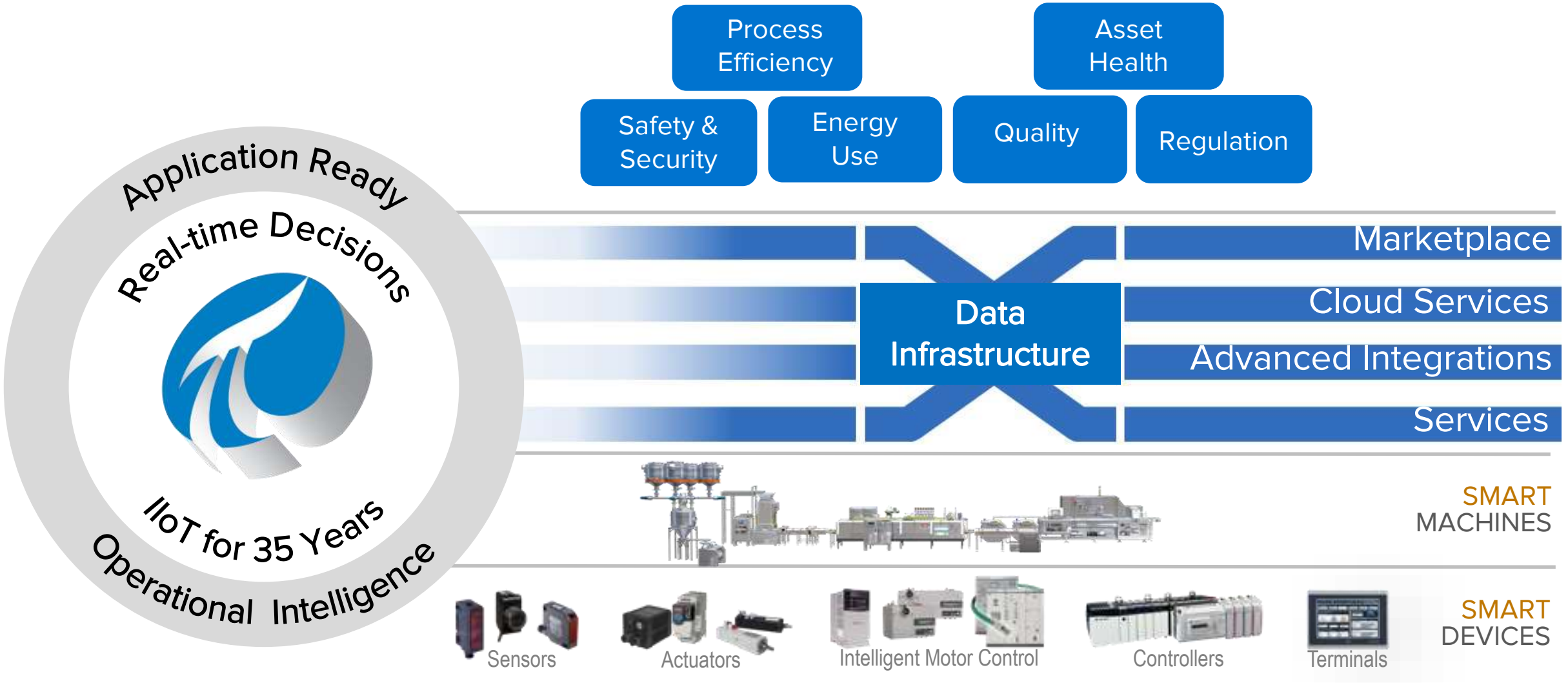
OSIsoft Initiatives for Business Transformation



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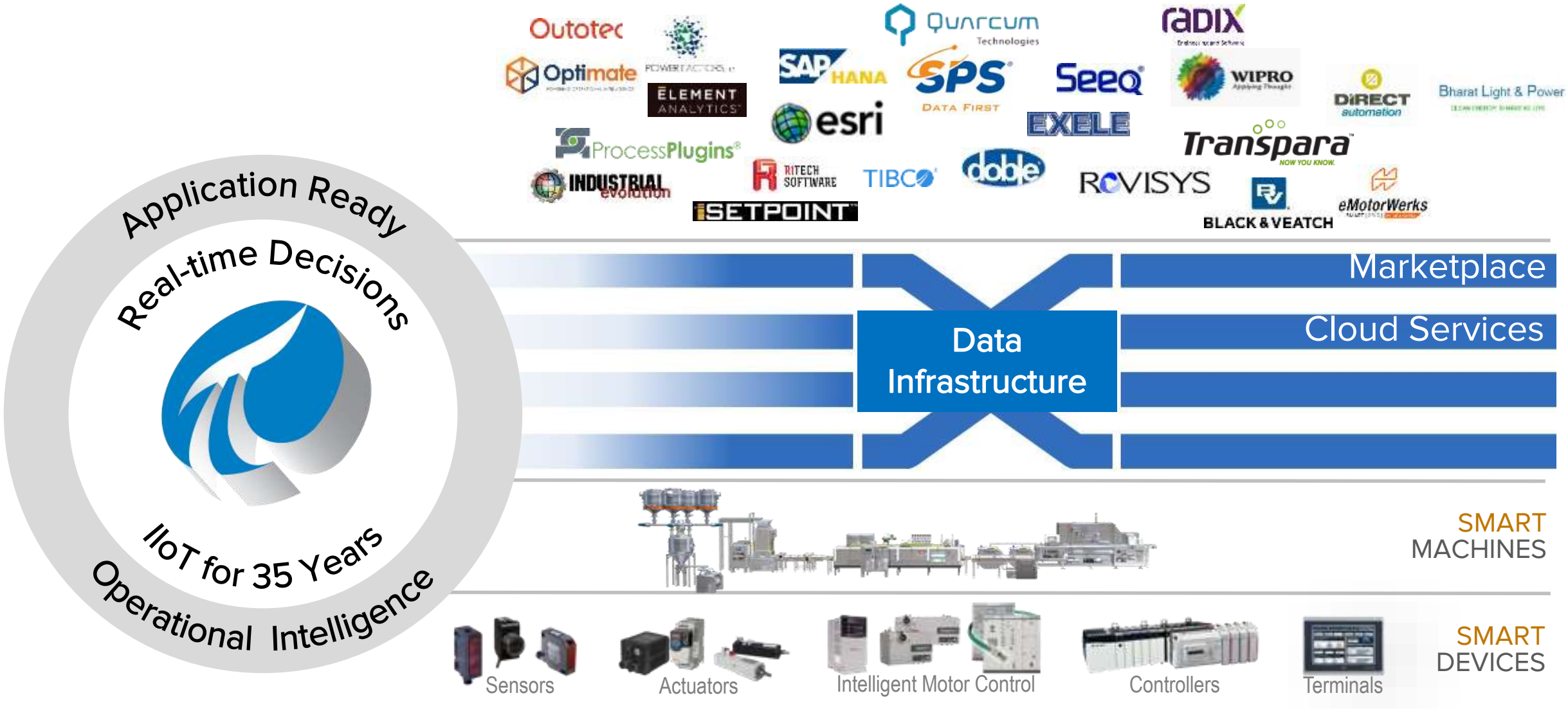
Partner Ecosystem to Support Transformation



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Proven and Trusted Digital Transformation

125+ Countries

Executives

1300+ Case Studies

450+ Interfaces

Business

1.5 Billion Sensors

17,000+ Sites

Operations

Application Ready

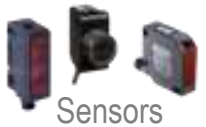
Real-time Decisions

IIoT for 35 Years

Operational Intelligence

Data Infrastructure

SMART MACHINES



Sensors

Actuators

Intelligent Motor Control

Controllers

Terminals

SMART DEVICES

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Unleash Your Infrastructure with the PI System

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Strategic Partnership

Rockwell Automation

- Leadership in Real-time Automation and Information Solutions
- Solution Provider
- Automation and Controls Expertise
- Solution Platform

OSIsoft

- Real-time Performance Management Software Products
- Technology Provider
- Real-time Data and Context Experts
- Data Infrastructure

Market leaders joining together to provide winning solutions

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Transactional data: orders, supply network, product design …

ERP FINANCIALS HR LOGISTICS QUALITY CUSTOMERS …

IT

CONVERGENCE

Rockwell Automation

OT

Real-time data: **CONTROL**, **SAFETY, SECURITY** + alarms, events, states, energy, diagnostics, …

SENSORS, ACTUATORS CONTROLLERS MATERIAL & TRANSPORT MACHINES & EQUIPMENT LABELERS & PRINTERS …

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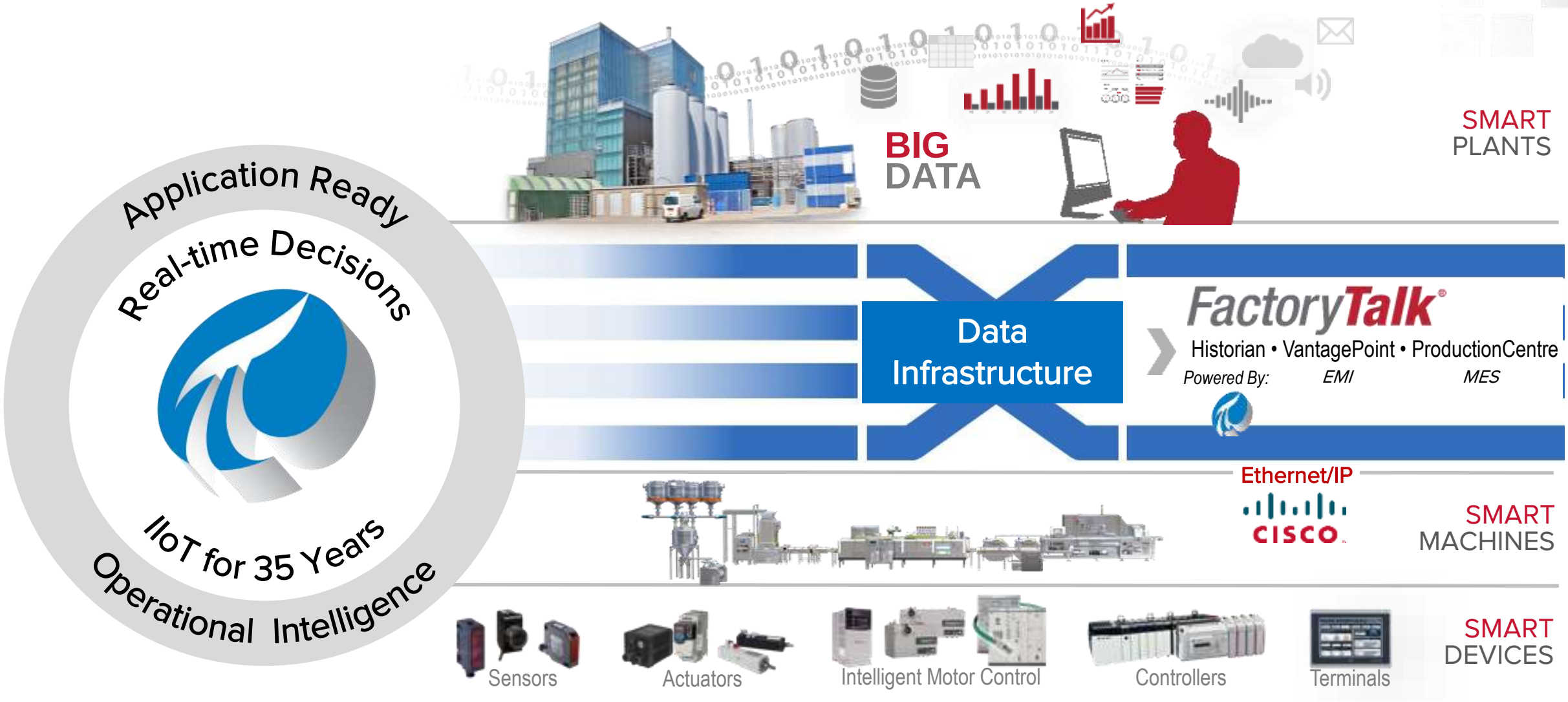
OSIsoft & Rockwell: Enabling an Agile Digital Transformation Strategy



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Joint Enterprise Agreement

"Native connectivity between the two systems allows high-speed, critical insight into plant operations at any level in the organization via a personal computer or mobile device."

OSIsoft. Rockwell Automation

FactoryTalk® Historian

MILLIONS of Data Tags

Mines, product transportation, six production facilities and into shipping operations

REDUCES OPERATOR VARIABILITY & **IMPROVES** QUALITY & PRODUCTIVITY

bhpbilliton

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"The Rockwell Automation and OSIsoft combination brings together the best of industrial and enterprise data management. The infrastructure seamlessly leverages the company's existing investments at a plant and enterprise level."

JOINT ENTERPRISE AGREEMENT

Deployment of standard infrastructure in

21 NORTH AMERICAN BREWERIES

AB InBev

OSIsoft. Rockwell Automation

"We believe North America will be the first of 6 Zones to deploy this architecture across AB-InBev, worldwide"

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Enhance Your Intelligence with PI Advanced Integrations

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Evolving Data Goals: PI Integrator for Business Analytics

Real-Time Decision Support (OT)

Monitoring
Real-time visibility

Process Optimization
Real-time and historical view across all assets

Enterprise Analysis

Benchmarking
Fleet-wide performance comparison

System Optimization
Combining data sets for system intelligence

BI Edition

Tibco Spotfire
Tableau
Microsoft BI
SAS
... And many more

Data Warehouse Edition

Oracle*
Microsoft SQL
Teradata*

SAP HANA
Apache Hadoop*
Hortonworks*
Cloudera*
Pivotal*

*Coming Soon, Stay Tuned!

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Enabling Big Data Analytics with SAP Hana

- IT / OT Convergence
- Delivering data with context to the Business Intelligence and Big Data tools you already own
  - Leverage the in-memory speed of SAP Hana for fleet-wide analyses
- Combine operations data with data from other systems (e.g. ERP) for system-wide intelligence

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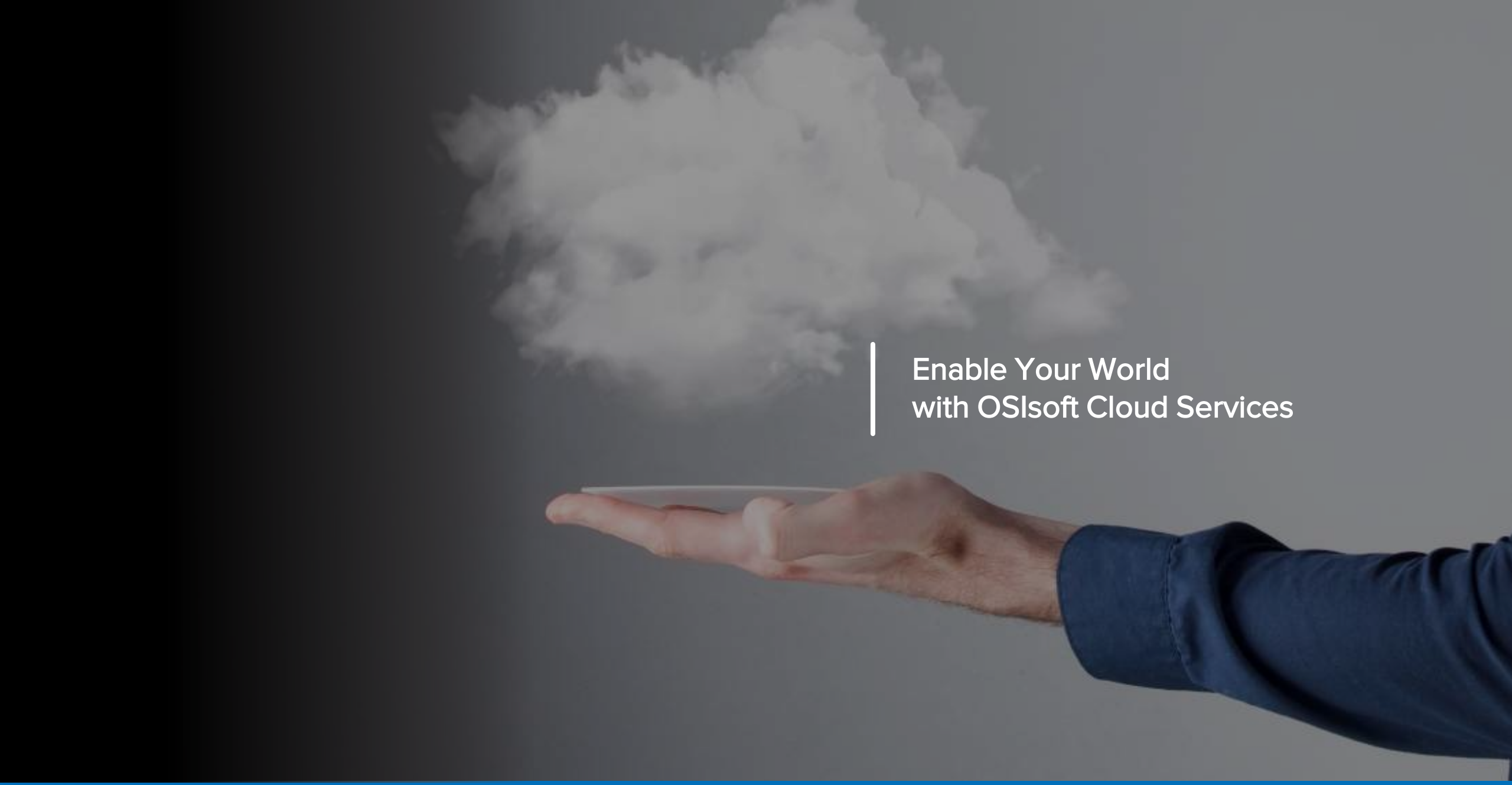

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Advance Your Ecosystem with OSIsoft Marketplace

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OSIsoft.
SYSTEM INTEGRATOR
PARTNER

OSIsoft.
CONNECTED SERVICES
PARTNER

OSIsoft.
APPLICATION
PARTNER

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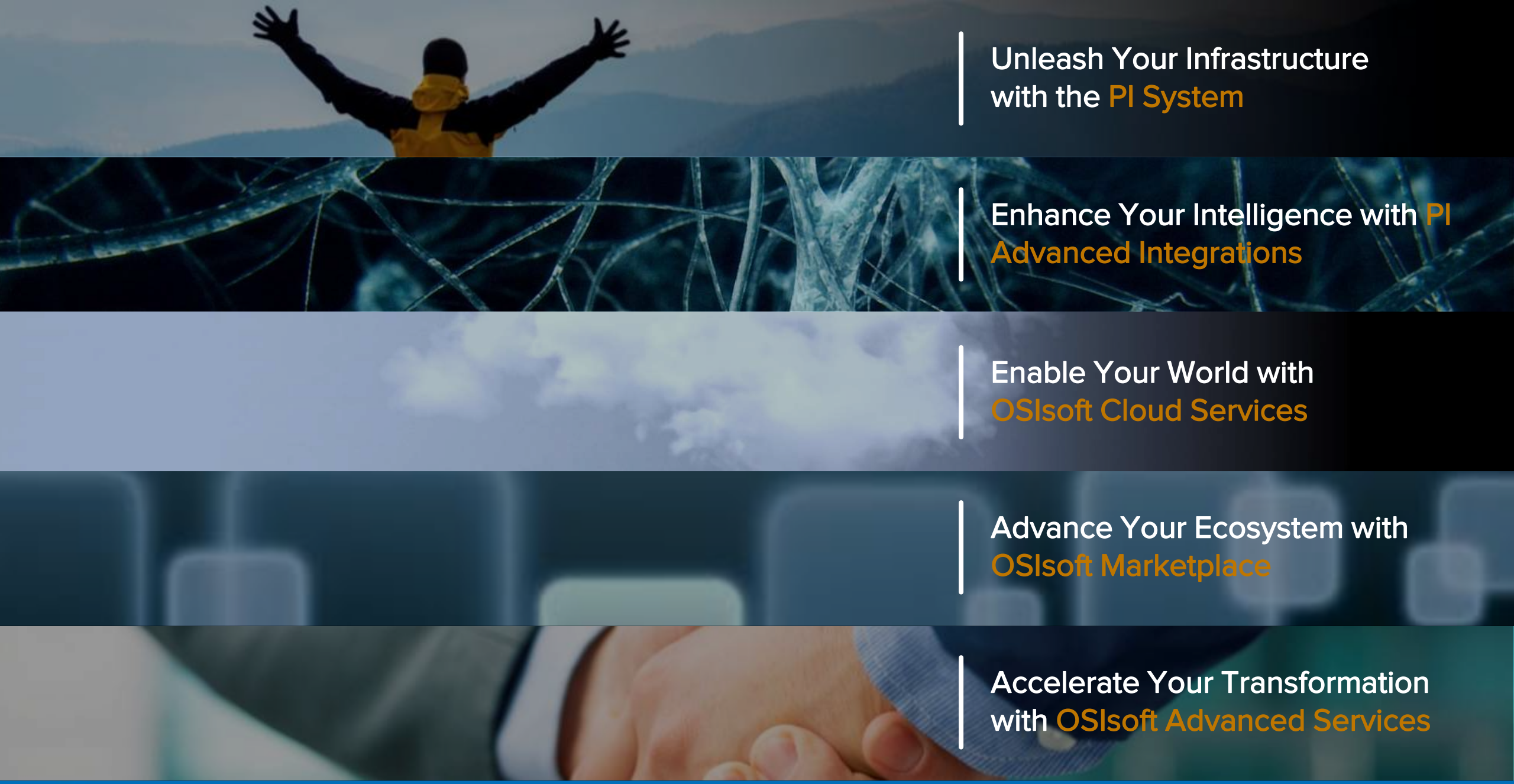

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THANK YOU

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