


The background of the image is a dark blue gradient with a faint, stylized cityscape of San Francisco, including the Golden Gate Bridge and the Transamerica Pyramid. The OSIsoft logo is positioned at the top center.

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USERS CONFERENCE 2016

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TRANSFORM
YOURWORLD



Digitization and Innovation:

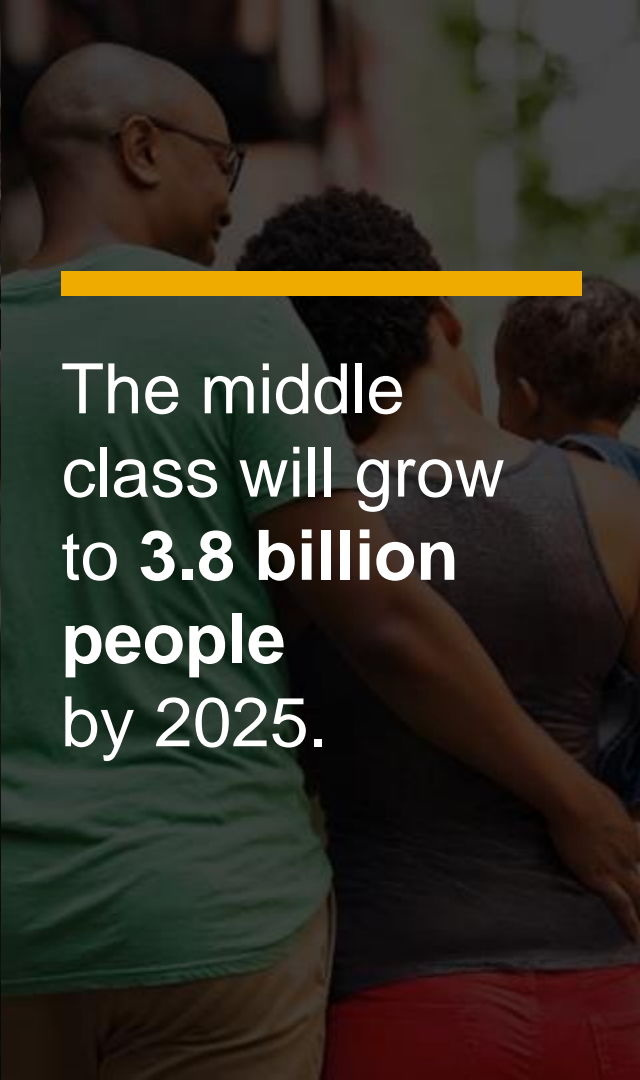
Explore how OSIsoft's Infrastructure and the SAP HANA Platform help customers in their Digital Transformation Journey

Presented by **Bala Ram**
VP, SAP Americas





The global population will grow to **over 9 billion people** by 2050.

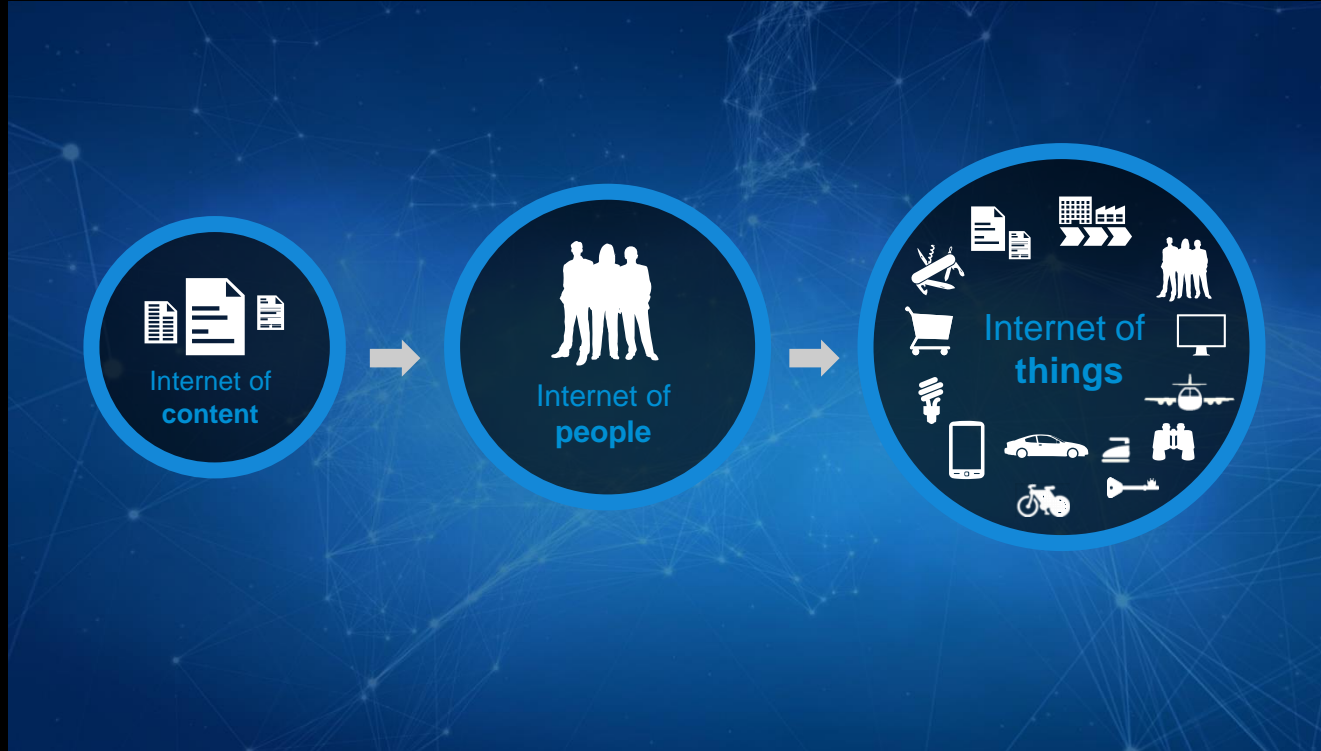


The middle class will grow to **3.8 billion people** by 2025.

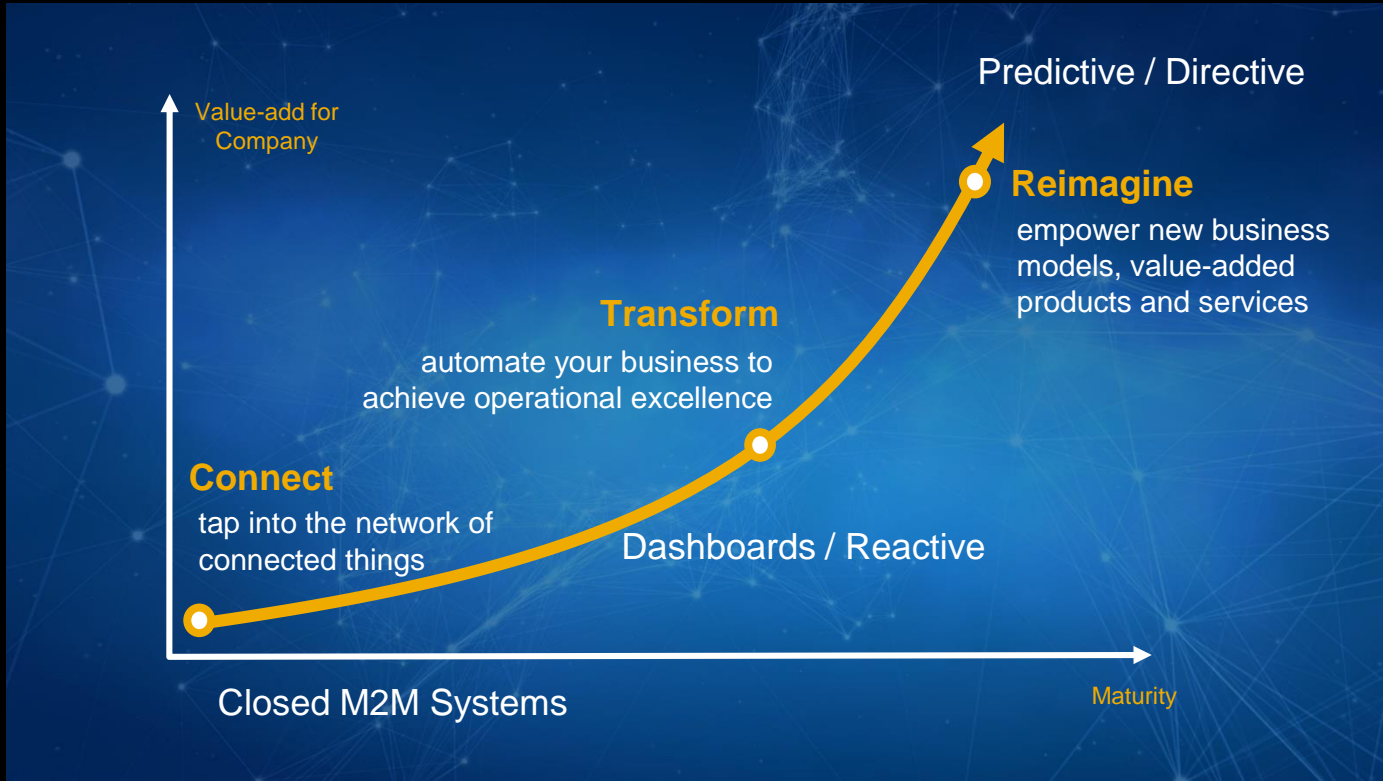


Urban Centers expected to see **explosive growth** by 2050.

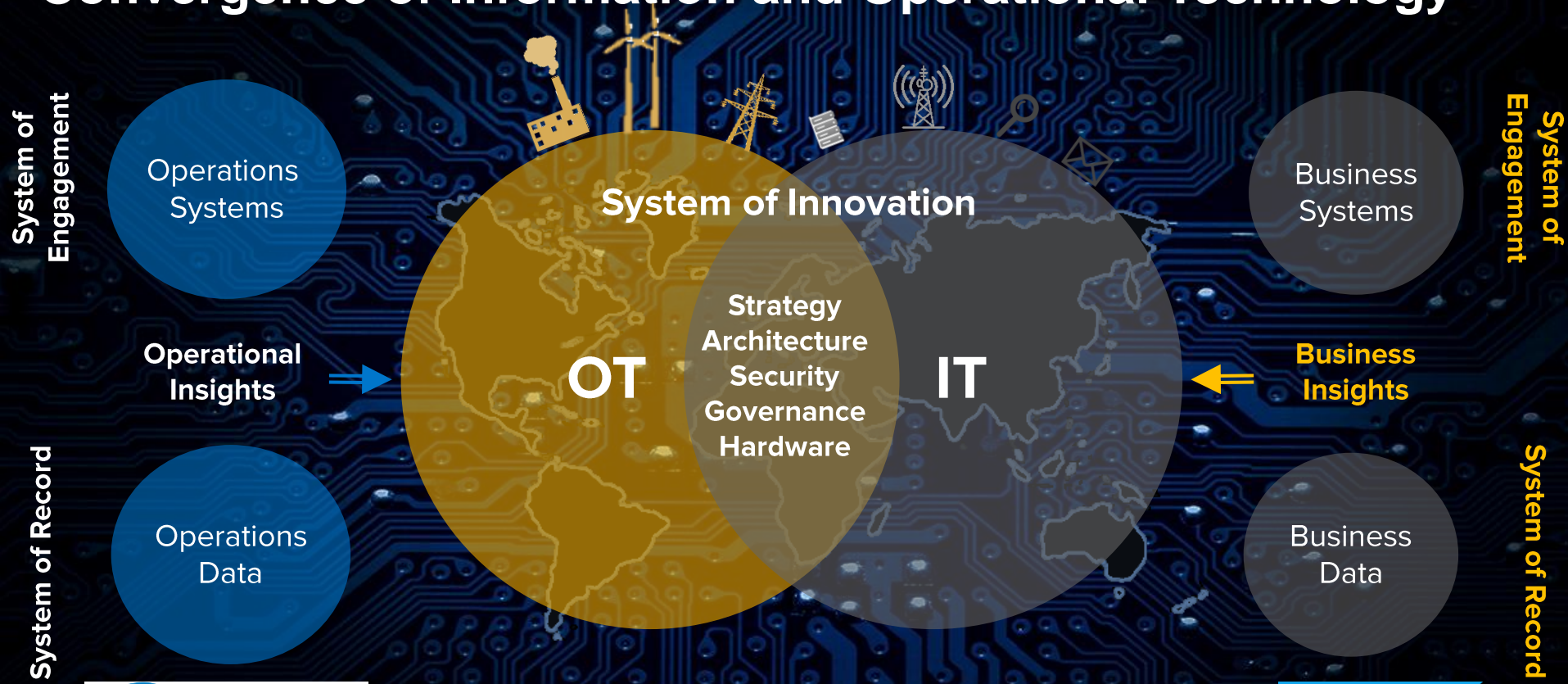
Internet of Things (IoT) is connecting information, people, and things



Internet of Things – adoption curve



Convergence of Information and Operational Technology

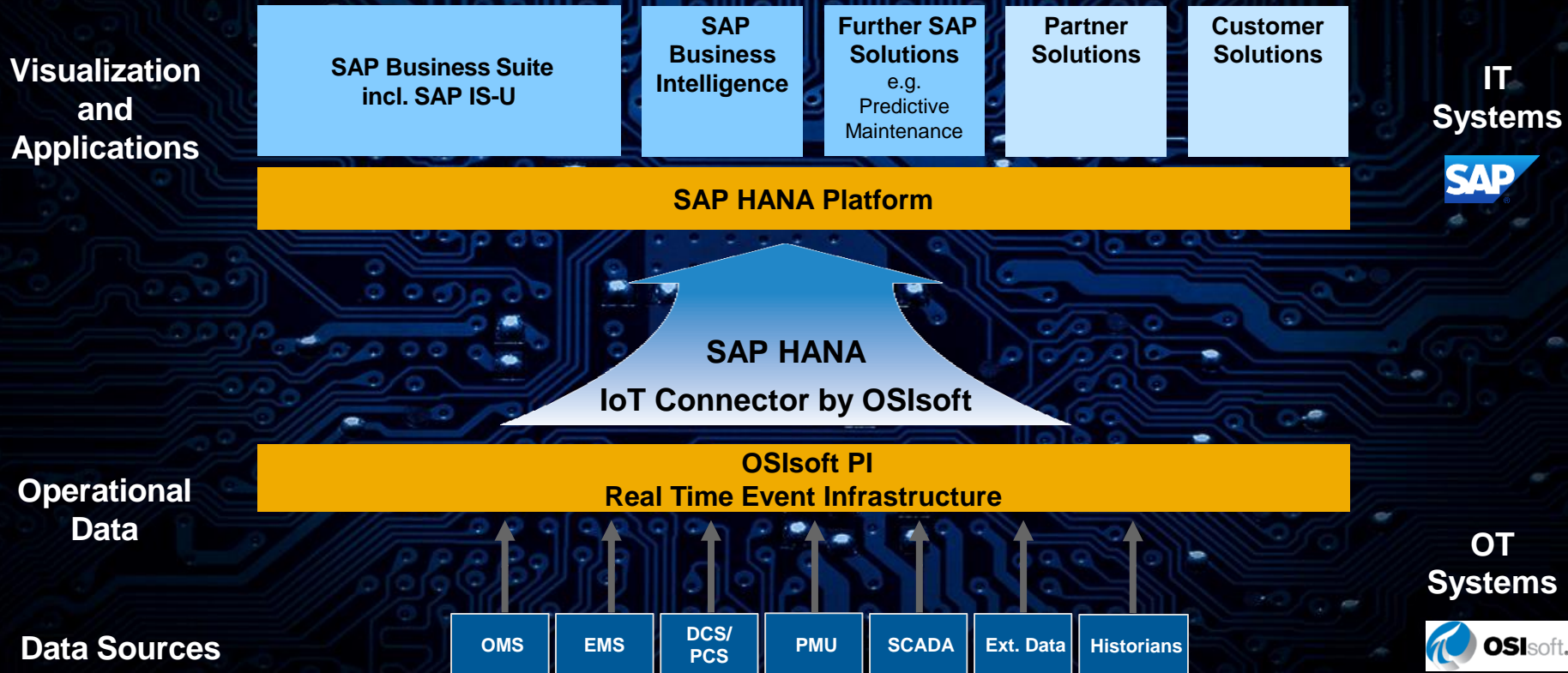


Enabling digital enterprises to do business innovation

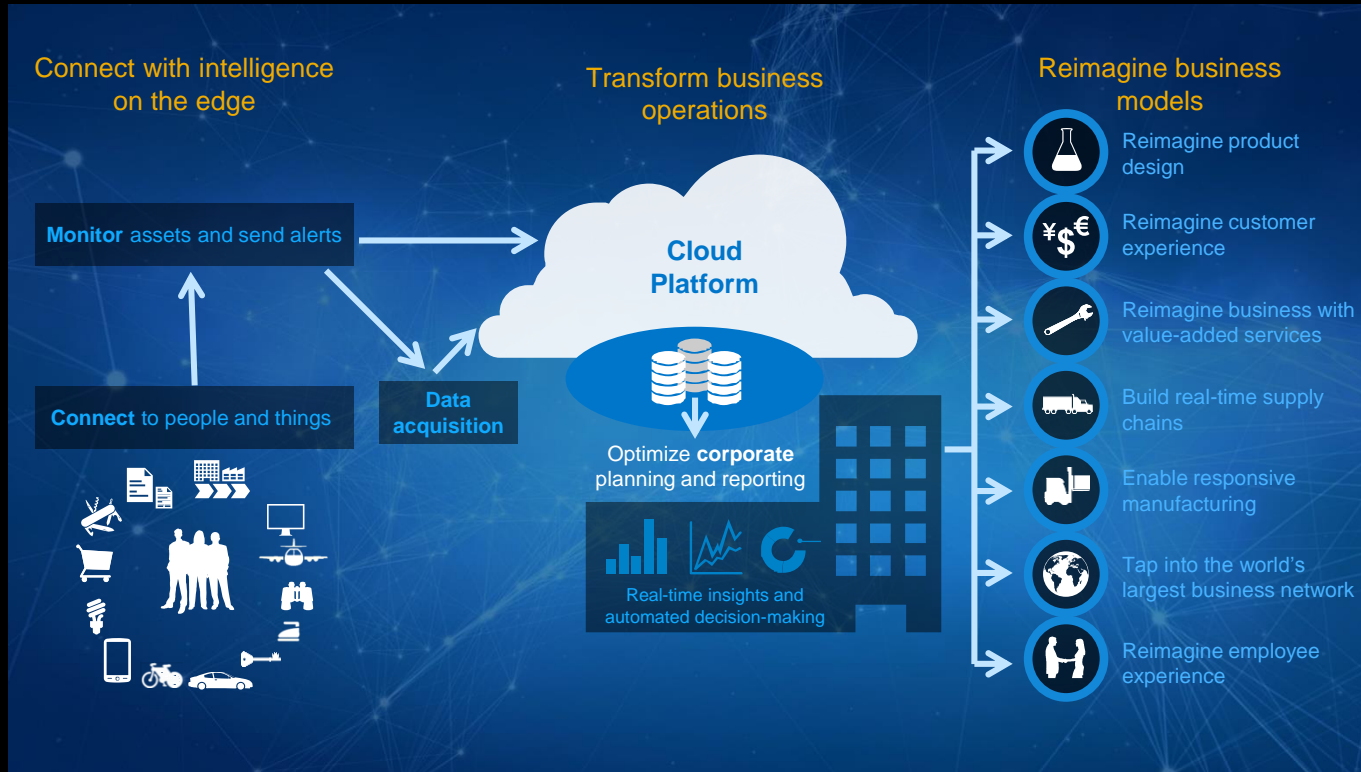


SAP HANA Platform and OSIsoft PI Server

Enable real time IT/OT convergence



SAP enables IoT from core to edge

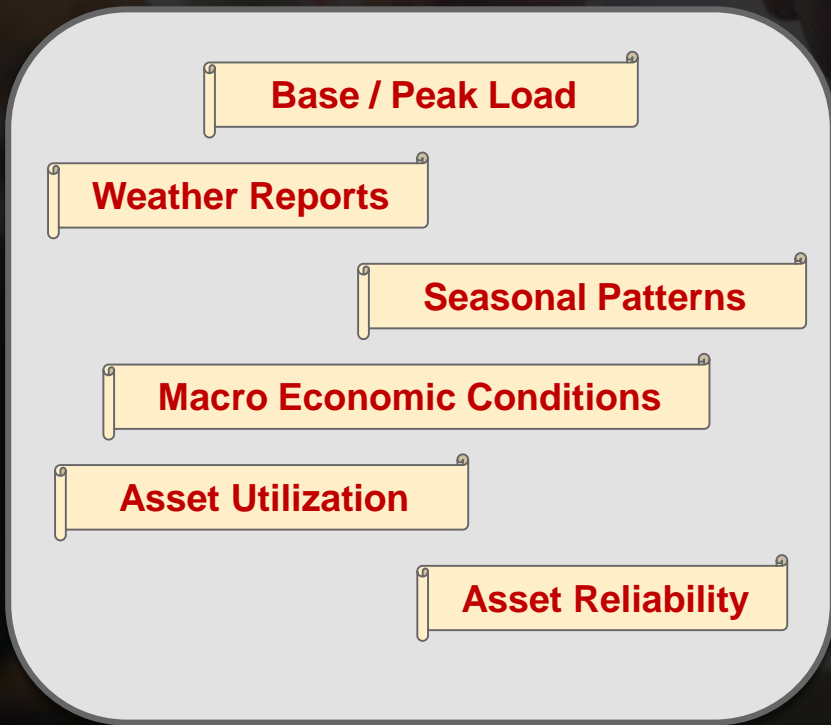


Re-imagine Forecasting and Planning

Devices

DCS
PLC/SCADA
Windmill
Solar panel

Data Sources



Forecast

Load

Capacity

Asset

Plan

Investment

Rate Plans

Demand Response

Re-imagine Maintenance Work

Prepare

Predict

Perform



Sensor Data

Operational Data

Historical Data

GIS/Spatial Data

Peak Load Impact

Thermal Imaging

Vibration Detection

Ultrasonic Detection

Oil Analysis

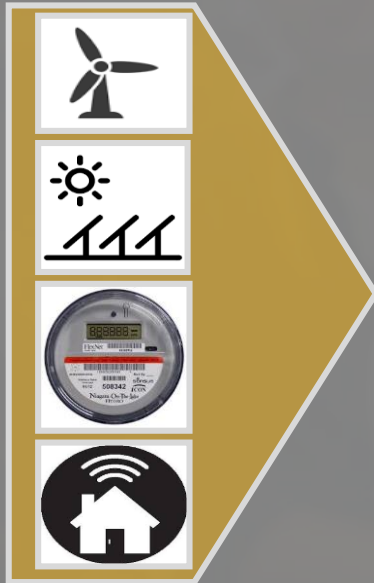
- Prepare Spare Parts
- Create Work Order
- Schedule Service
- Compare Asset Performance
- Training
- Safety

Re-imagine Customer Engagement

Access

Analyze

Act



Energy Usage Patterns

Cost of Service

Price Elasticity

Renewable Energy Alternatives

- Demand Response Programs
- Decarbonization Efforts
- Smart Home Products, Services
- Multi-channel Customer Intimacy

Digital Platform Providing Comprehensive Solution

Things

Outcome

Insights

Load Forecasting

Capacity Planning

Predictive
Maintenance

Fraud Detection

Customer 360

...

SAP HANA Platform



SAP HANA IOT Connector by
OSIsoft

SAP Data Services

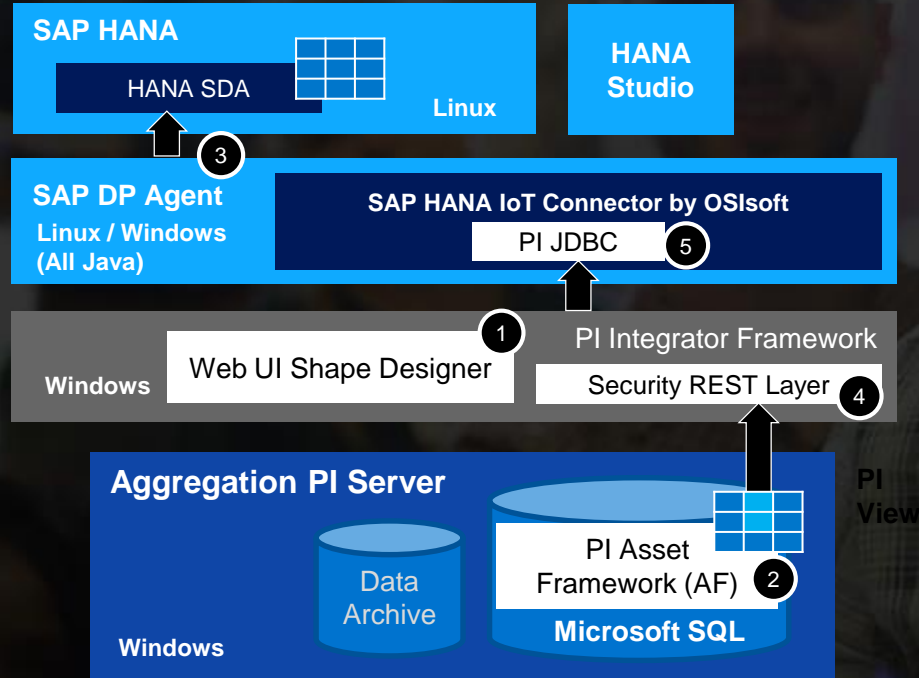
SAP ECM by Open Text

Devices / Sensors



SAP HANA with IOT Connector: Solution architecture

Data federate PI System data into SAP HANA via SAP HANA Smart Data Access



1

User creates view in Web UI Shape Designer via PI Integrator Framework

2

View definition is stored in PI System (AF). View data is stored in optimized format in AF-managed SQL Server

3

SAP HANA user configures virtual tables in SAP HANA Studio using SAP HANA SDA and SAP HANA IoT Connector by OSIsoft

4

SAP HANA IoT Connector by OSIsoft (Java, HANA SDK) controls access to the views via a REST layer in the PI Integrator Framework

5

SAP HANA IoT Connector by OSIsoft retrieves data from view located in SQL Server via PI JDBC driver

Legend

3

Workforce
Engagement

Sf[♥] SAP Fiori

Supplier collaboration
business networks



Digital Core

SAP S/4 HANA

SAP HANA Cloud Platform



hybris

Assets and the
internet of things

Customer-experience
Omni channel

SAP HANA Platform

Contact Information

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SAP



Questions

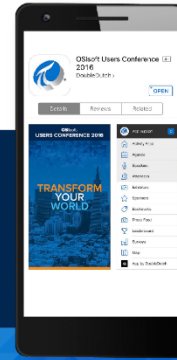
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감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

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