



# IoT + JDE + Power Apps .....Oh Boy !!!!!

A presentation for



ORACLE | Partner



Microsoft  
Solutions Partner  
Microsoft Cloud



# Agenda

## JD Edwards EnterpriseOne Capital Asset Management Module + IIoT

- Fed Coop Introductions
- Fed Coop Business Case
- Syntax Introduction
- Solution Overview
- Q&A



# Presenter

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Mike Smitten

Director, Innovation – Business Solutions

Federated Co-Operative Ltd.

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- Over 20 years of Technology experience overseeing and implementing systems across several domains including, Supply Chain, Finance, HCM & Capital Asset Management
- Currently helping lead several strategic project and operational teams



# Who we are



Federated Co-operatives Limited (FCL) is a wholesaling, manufacturing, administrative and marketing co-operative that serves independent local Co-ops across Western Canada.

OUR VISION

Building sustainable communities together.



# Co-operative Retailing System (CRS)



# CO-OP IN WESTERN CANADA

FCL and local Co-ops help build, feed, fuel and grow Western Canada.



**650+**  
COMMUNITIES

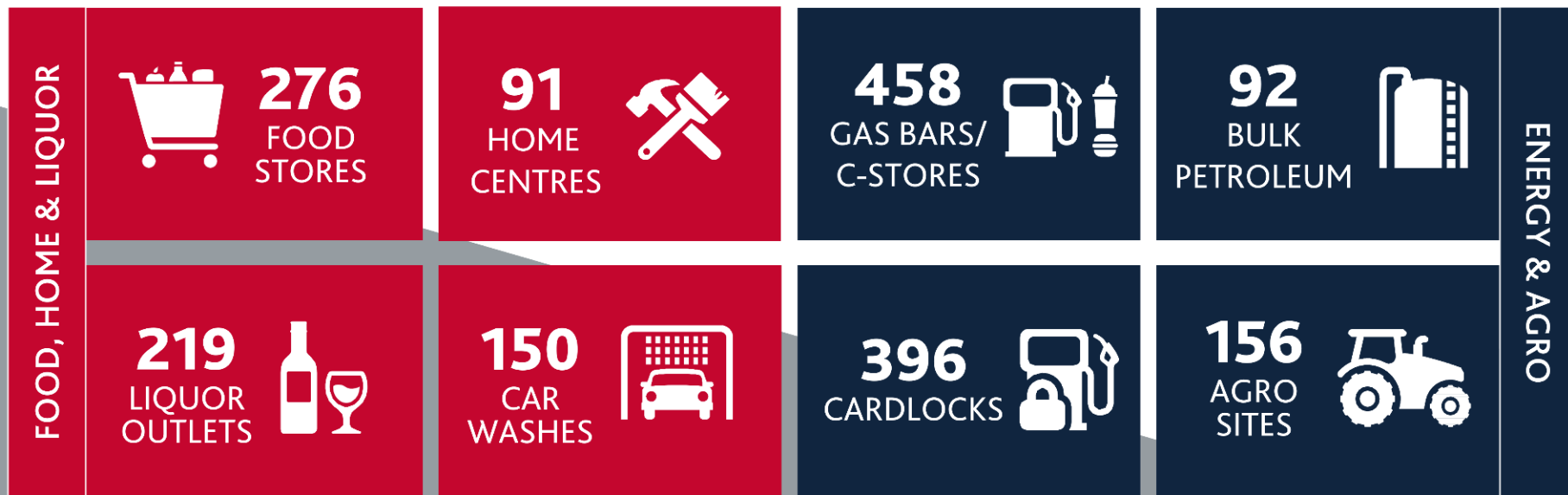
**26,400+**  
EMPLOYEES

**2.1 M+**  
MEMBERS



# Co-op Locations

Co-op operates in four primary areas: agriculture, food, home and building solutions, and energy. Local Co-ops may also provide other services.



# We Fuel Western Canada

- Distributes **17 million** litres of fuel products, per day
- **5.6 billion** litres of fuel sold, per year
- Fleet of **250 b-train units** travelled **49 million** kilometres





# Co-op Ethanol Complex (CEC)



The CEC has been producing and shipping ethanol since 2008. FCL purchased the facility in the Summer of 2019.

- Based near Belle Plaine, Sask.
- Produces up to **150 million litres**, per year
- Generates between **\$100 - \$140 million** in economic impacts every year
- **350,000 tonnes** of grain and other crops purchased annually from ~ **270+** Western Canadian producers

# Federated Co-operative Business Case

Capital Asset Management Module + IIoT

# Fed Coop Business Case

## Problem statement

Our organization currently faces significant challenges in maintenance management across various teams and affiliated companies. The existing processes are decentralized and lack standardization, leading to inefficiencies, increased downtime, and elevated maintenance costs. Additionally, these processes are not integrated with our core Enterprise Resource Planning (ERP) system, JD Edwards (JDE), resulting in data silos, inaccurate maintenance records, and delayed decision-making.

## Challenges

**Inconsistency in Maintenance Practices:** Different teams and companies operate under varied maintenance protocols, which complicates oversight and best practices implementation.

**Data Fragmentation:** Critical maintenance data is scattered across multiple systems and formats, making it difficult to track, analyze, and act upon efficiently.

**Resource Wastage:** The lack of a unified system leads to redundant efforts, misuse of resources, and an inability to predict maintenance needs effectively.

**Compliance and Risk:** Inadequate maintenance tracking and inconsistent standards increase the risk of non-compliance with industry regulations and can lead to safety issues.

# Fed Coop Business Case

## Benefits

### **Enhanced Operational Efficiency:**

Reduces downtime by enabling proactive maintenance and faster response to equipment issues through real-time monitoring.

### **Cost Reduction:**

Decreases maintenance costs by eliminating redundant processes and improving resource allocation, ensuring maintenance resources are used more efficiently.

### **Improved Compliance and Safety:**

Enhances adherence to safety standards and regulatory requirements through consistent maintenance practices across all equipment and locations.

### **Data-Driven Decision Making:**

Facilitates better strategic decisions by providing comprehensive analytics on maintenance activities, equipment performance, and resource utilization.

### **Extended Equipment Lifespan:**

Increases the longevity of equipment through timely maintenance and updates, significantly reducing the need for premature replacements.



# Presenter

## Mahesh Sathenjeri

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Senior ERP Specialist  
Syntax

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- 18+ years of progressive IT experience including ERP systems, change control management, and SOX systems
- Extensive experience in process improvement around manufacturing, distribution and finance on initiatives like cost saving and performance improvements.
- Technical expertise includes Supply Chain, Operation Accounting, Distribution, Finance, HR, Compliance and Audit.



# Our Story

Syntax Overview



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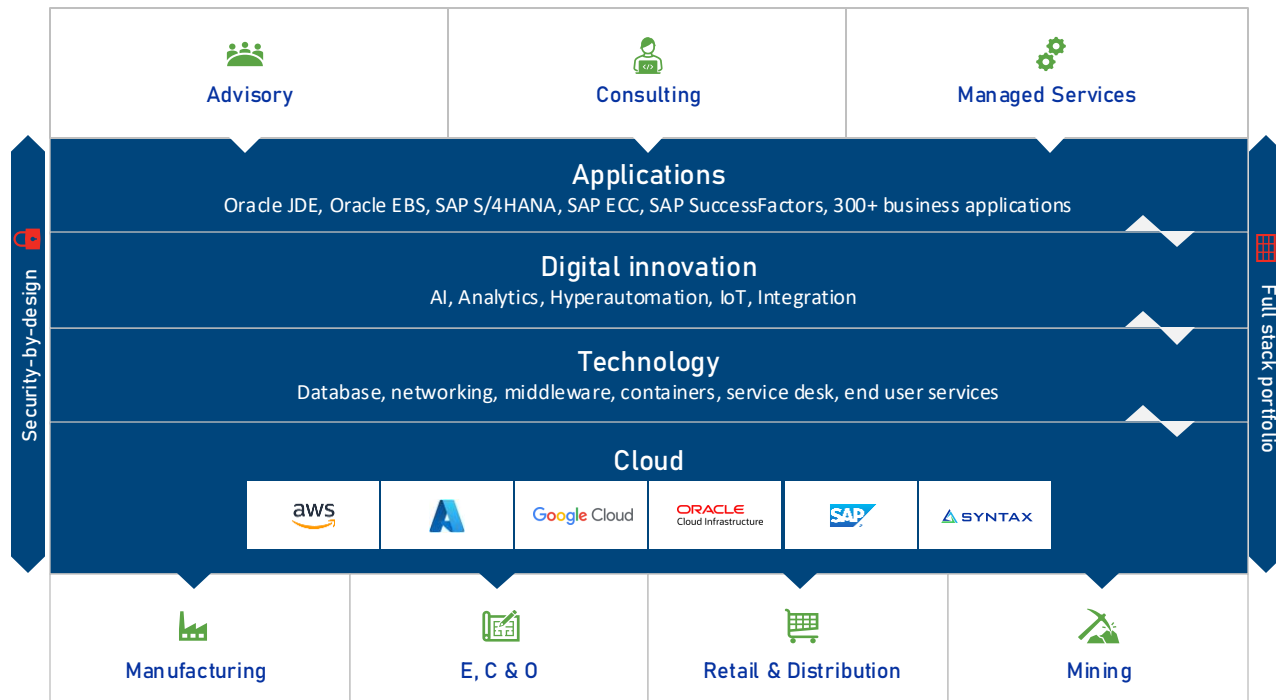


JD Edwards EnterpriseOne Capital Asset



# Our profile

A global provider of mission-critical application services in the cloud



26

Offices

15

Countries

52+

Years of experience and leadership

2,800

Technology and business professionals

4



Major languages in which business is conducted at scale

900+

Mid-market and large enterprise customers

# Oracle-Certified Capabilities

## Oracle Partner Network

15K+

Managed  
Systems

### Infrastructure

**ORACLE** | Sell  
Partner  
  
*Expertise in  
Oracle Cloud Platform  
in North America*

### Platform

**ORACLE** | Service  
Partner  
  
*Expertise in  
CSPE: Oracle Cloud Platform -  
Oracle Database to Oracle Cloud  
in North America*

### Packaged Applications

**ORACLE** | Service  
Partner  
  
*Expertise in  
JD Edwards Applications  
to Oracle Cloud  
in North America*

### Fusion Applications

**ORACLE** | Sell  
Partner  
  
*Expertise in  
Oracle ERP Cloud  
in North America*

950+

Employee Oracle  
Certifications

**ORACLE** | Service  
Partner  
  
*Expertise in  
Cloud Service Solution  
OCI Migration  
in NAMER-North America*

**ORACLE** | Service  
Partner  
  
*Expertise in  
CSPE: Oracle Cloud Platform -  
Oracle Cloud Platform  
Data Management  
in North America*

**ORACLE** | Service  
Partner  
  
*Expertise in  
Oracle E-Business Suite  
Applications to Oracle Cloud  
in North America*

**ORACLE** | Sell  
Partner  
  
*Expertise in  
Oracle SCM Cloud  
in North America*

350+

Successful Cloud  
Migrations

**ORACLE** | Service  
Partner  
  
*Expertise in  
Oracle Cloud Platform -  
Oracle Cloud Platform Integration  
in North America*





Why Syntax

## Syntax cloud capabilities

Syntax expertise transcends multiple services across **multiple cloud environments**. Our approach ensures that your business has choice to shift as your business evolves and embraces the **hybrid cloud** paradigm. Ensuring digital transformation of over **900** organizations.

Generative AI

Data lakes & Analytics

Internet of Things (IoT)

End User Services

Security & Compliance

Governance

FinOps

Disaster Recovery

Compute

Storage

Networking

Database





# Solution Overview

Capital Asset Management Module + IIoT



# Solution Overview

## | Challenges

- What Sensor to use

*Temperature, Humidity, Gyroscope, odometer etc.*

- How does Sensor Connects to JDE

*Cellular, Wifi, REST API, MQTT etc*

- How do we collect data

*Do we collect all data or only on certain condition, where do we store these data (AWS, Azure, Oracle Cloud)*

# Solution Overview

## | Challenges

- When to take action

*Event or Condition based, Where to define these rules*

- What actions to be taken

*Do we need a maintenance Work order, Need just notification or both*

- How do we inform business on the action taken

*Do we need a dashboard, maintenance application or JDE to view status*



# Solution Overview

## Syntax Offering

### Advisory

- Selection of Sensors
- Vendor Selection
- Connectivity of sensors to Cellular or Wifi Network
- Cloud Selection (Azure, AWS, Oracle)

### Implementation

- Connectivity of Sensor data to cloud
- Connectivity to JDE
- CAM Implementation
- Front End App for non JDE users
- Dashboard and Reports
- Artificial Intelligence for Predictive analysis

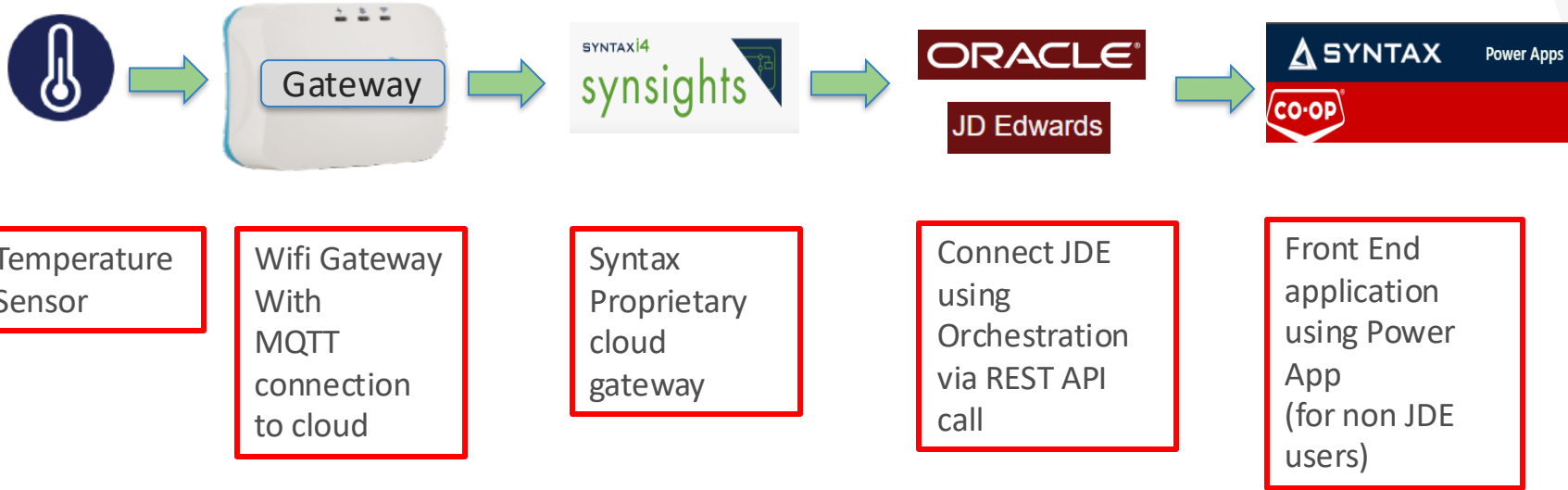
# Solution Overview

## | Fed Coop Solution

- What Sensor to use → Temperature Sensor
- How does Sensor Connects to JDE → WiFi using MQTT to Connect Synsights
- How do we collect data → Collect all sensor data into Synsights Cloud
- When to take action → Condition based. Define Conditions in Synsights
- What actions to be taken → Create Maintenance WO in JDE
- How do we inform business on the action taken → Front end App using Power App to display JDE data. This is for users who don't have JDE access

# Architecture

## Solution Architecture



# Architecture



Synsights is proprietary IoT Portal running on cloud.

- ❖ Manage IoT Sensors, Define Rules, setup User Profile and security
- ❖ Ability to collect data from IoT Sensors
- ❖ Integrate to AI for Predictive analysis
- ❖ Customer friendly GUI
- ❖ Customizable to have full stack or act as Gateway only

# Architecture



Synsights

←

msathenjeri@syntax.com

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msathenjeri@syntax.com

Asset Management

Rules Engine

Device Management

Search

Search

Search

▼ Demo FedCoop

▼ Saskatoon

▼ Fed Coop

▶ Temperature Sensor

▶ Vibration Sensor

▶ Syntax E-Car

Temperature Sensor

Temperature Sensor Model

Type: Temperature Sensor

Location name: Fed Coop

Status: No Status

0 new notifications

0 new customer requests

GENERAL

STRUCTURE

NOTIFICATIONS

DOCUMENTS & INSTRUCTIONS

COMMUNICATION

Serial number

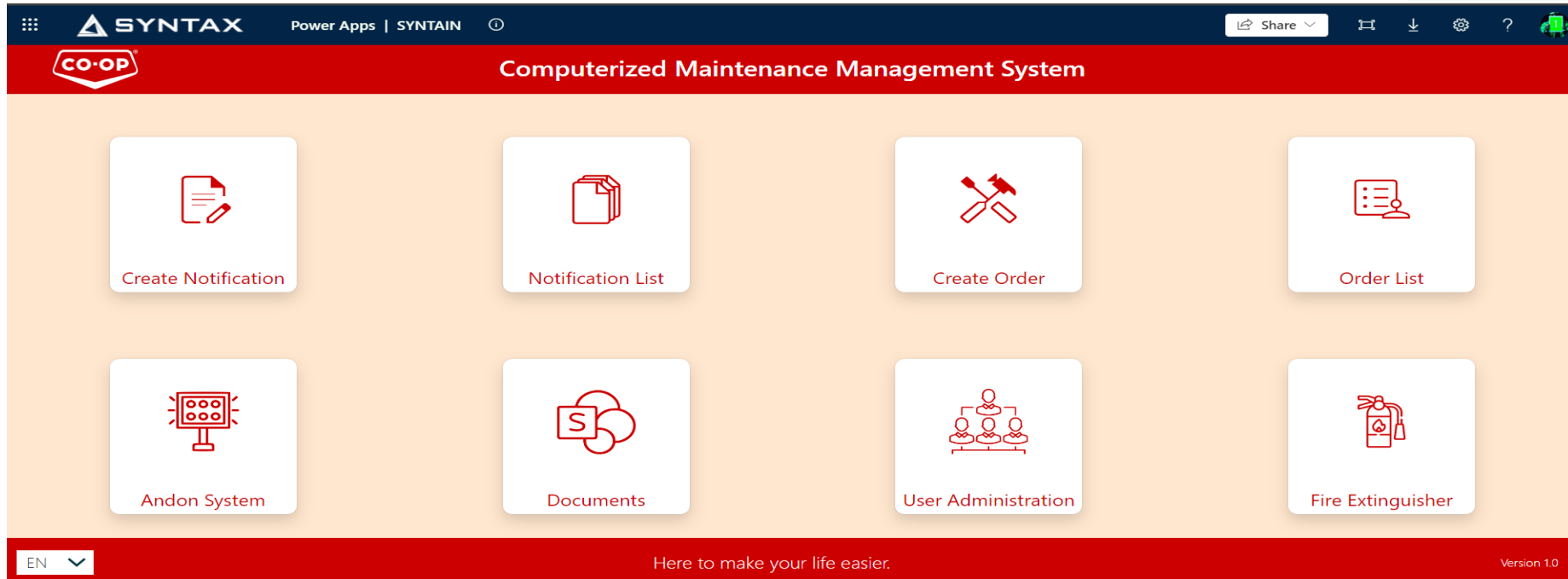
Batch number

Installation date

21 Nov 2023, 07:00 pm

# Screenshots and/or Demo

## Front End on Power Apps





# Screenshots and/or Demo

## Front End on Power Apps

The screenshot shows a Power App interface titled "Create Maintenance Order" with a red header bar. On the left is a vertical sidebar with icons for home, list, edit, and other functions. The main area is divided into two columns. The left column contains three required fields: "Description" (text input with "Test data"), "Work Center" (text input with "M30"), and "Priority" (dropdown menu with "High"). Below these is a "Reported By" field with "Ro Bot". The right column contains a "Detailed Description" field with "Test data Test dataTest dataTest dataTest data", an "Equipment Number" dropdown menu with "24846" and a sub-label "Exhaust Fan", a "Pictures (0)" section with a camera icon, and a "Reported Date & Time" field showing "25/04/2024 11 : 31".

# Screenshots and/or Demo

## Front End on Power Apps



Maintenance Order List

● 5122998

testtttttt

Ro Bot

24846

Released

● 5122971

new

Ro Bot

24854

New

● 5122963

testt

Ro Bot

24854

New

● 5122955

demo at syntax

Demo User SYSEUIISDEMO1

24897

Released

● 5122947

test

Ro Bot

24854

Released

● 5122939

Problem with HVAC

Demo User SYSEUIISDEMO1

24846

Released

● 5122921

New

**Order 5122971**

Photos attached (0)

**Description**

new

Detailed Description

TESTT

Work Center

M30

**Equipment Number**

24854

10 HP motor

**Priority**

Med

Status

New

Reported By

Ro Bot

Reported Date & Time

26/02/2024 11 : 59

Release Order

Work Permit

Material

Documents

Malfunction

# Screenshots and/or Demo

Demo

# Fed Coop Next Steps

## Next Steps

Fed Coop is planning to add various sensors for its Retail and Refinery equipment

One Maintenance Application front end for maintenance technician and users.

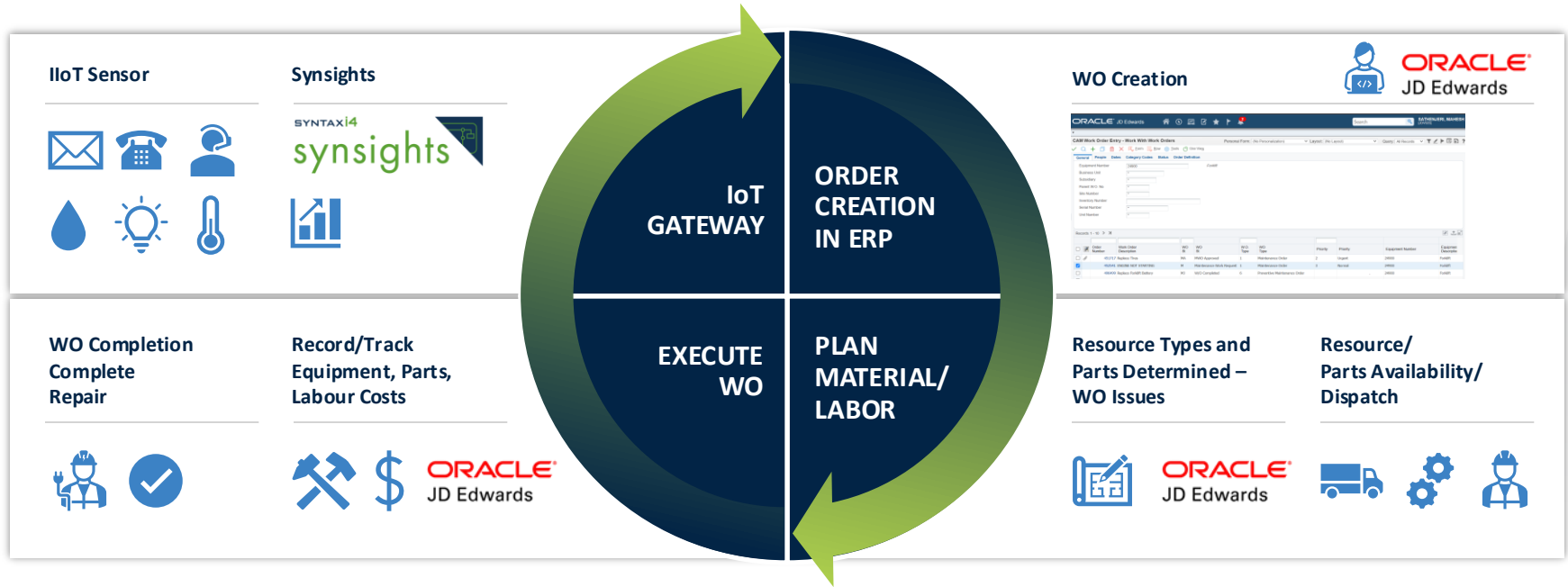
Launch Power app as stand alone as well as launch from JDE

# JDE ....Next Level

## Scalability:

- Not just CAM. JDE can be enhanced to communicate with machine for
  - Manufacturing
  - Quality Management
  - Robotics Integration
- Technology agnostic
  - Fits to AWS, Oracle Cloud, Azure, private cloud

# Capital Asset Management or Manufacturing Applications





# Next Gen CAM with IIoT Using Oracle Orchestrator





## Q&A

JD Edwards EnterpriseOne Capital Asset  
Management Module



# Contact Us

**Syntax provides end-to-end technical and functional solutions for JD Edwards that are prescriptive and help drive best practices, automation, and tooling to ensure peak performance, high availability, and security.**

- Hosting and Managed Services
- Performance Tuning and Optimization
- Upgrades and Implementations
- Cloud Migrations (private, public, hybrid)
- Monitoring and Service Desk
- Security Managed Services

Syntax has been providing JD Edwards business solutions for over 20 years. We support and implement the entire suite of applications, as well as delivering development projects, integrations, upgrades, cloud hosting, managed services, and ongoing support.

**Contact Syntax today to discover how we can ensure your JD Edwards systems are running at peak performance.**

[www.syntax.com](http://www.syntax.com)

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Thank You

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