

# Business Process Group Field Ticket Project Overview

James Thompson, Business Process Consultant  
Supply Chain Strategy and Technology

# Agenda

- Field Ticket Overview
- Key Finding and Recommendations
- Next Steps
- ConocoPhillips Initiatives

# Field Ticket Project Overview

# Field Ticket Project Problem Statement

- Manual, paper-based and legacy processes
- Massive amounts of transactional volumes exchange
- Supplier spends excessive time driving to/from field offices for signatures
- Overpayment/coding errors (joint venture audit issues, and adjustments)
- Lack of real-time knowledge of activities or expenditures

# Field Ticket Current State – (Paper Delivery)



# What do 15,000 tickets look like?

You want me to find ticket #675321?



# Goal of Project

- Gain community adoption of the PIDX Field Ticket Schema by providing a best practice overview of the field ticket process for operators and suppliers.
- This would allow the ability to successfully integrate field ticket data points into the standard PIDX Field Ticket Schema, along with driving technology in the industry.
- Project started in January 2016

# Supplier\Operator\Marketplace Collaboration

Best Practice Area Finding	Business Group Contact
<b>Process Flow - Upfront PO's</b>	<b>John Stukes - OFS Portal</b> <b>Amy Nguyen - OFS Portal</b>
<b>Process Flow - Via Call-Off</b>	<b>John Stukes - OFS Portal</b> <b>Amy Nguyen - OFS Portal</b>
<b>Invoice Coding Errors</b>	<b>Elena Dumitrascu - Cortex</b> <b>Bryan Fusilier - Aristotle's Alexander's</b> <b>Darren Ebanks - Schlumberger</b>
<b>Field Ticket Integration with Drilling Software</b>	<b>Christopher Hebert - (Aristotle's Alexander's)</b>
<b>Unmanned Location Field Tickets</b>	<b>Jean-Pierre Foehn - Amalto</b> <b>Bryan Pederson - Amalto</b> <b>Rick Conner - Schlumberger</b>
<b>Supplier Price Issues and Complex Services</b>	<b>John Stukes - OFS Portal</b> <b>Amy Nguyen - OFS Portal</b> <b>Terry Thomas/Darrin Eubanks - Schlumberger</b>

# Field Ticket Participating Companies

Schlumberger

HALLIBURTON

Anadarko

Chevron



GE Oil & Gas

BAKER  
HUGHES

ConocoPhillips



SELECT  
ENERGY SERVICES

Weatherford

ARISTOTLE'S  
ALEXANDER | PEOPLE  
SYSTEMS  
PERFORMANCE

amalto

OS Portal

CORTEXX



C&J Energy Services

WELLS  
FARGO

Spira

OilDex

The Frontline Group

BASIC  
ENERGY SERVICES

LiquidFrameworks

# Key Finding and Recommendations

# Field Ticket Project Key Finding

- Research reveals disjointed and manual processes
- Continues to be a manual paper process
  - Leads to increase cycle time for payment to suppliers
  - Leads delays of expenses results on operators financials
- Service Call-off's continues to be the standard process
- Data input in drilling software continues to manual
- Field personnel not willing to adapt to technology
- Purchase Order Use is limited
  - Results in an increase of invoice coding errors
  - Increase in invoice and field ticket processing time

# Field Ticket Project Recommendations

- Leverage Technology
  - B2B Collaboration
    - Increase purchase order use
    - Supplier\Operator Price Sheet
    - Operator Coding Data Exchange. i.e. AFE, Project Number, Well description, etc.
  - Mobility
    - Internet of Things, “IoT”
- Reduce and/or eliminate paper field ticket
- Operator’s educate field personnel the importance of proper coding

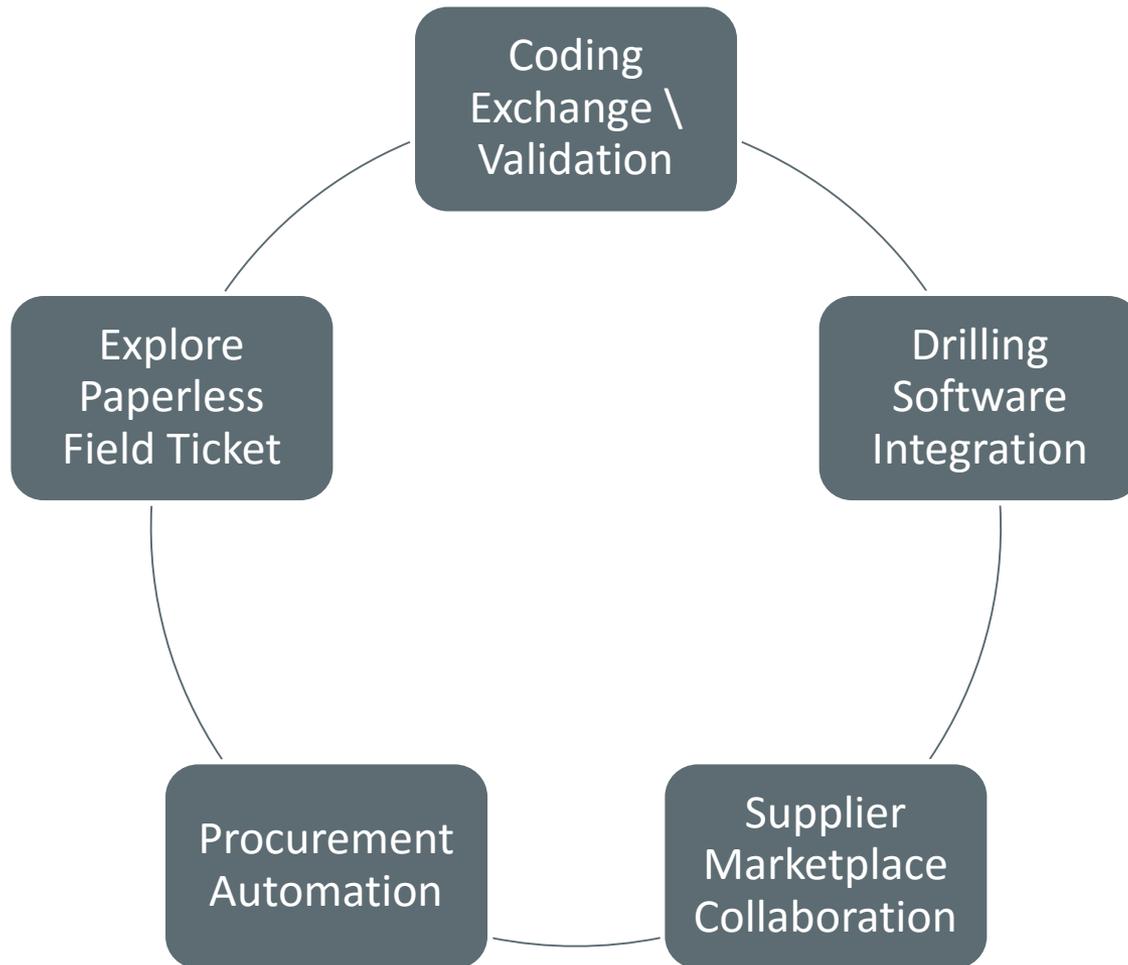
# Field Ticket Next Steps

## May to December 2016

- Phase 2 – Developed guidance on the following challenges identified in phase 1 and measure results.
- Socialize PIDX Activities
- Monitor Suppliers/Operators/Marketplace Collaborations
  - **Operator \ Supplier Data Exchange – (PO's, Coding Cheat Sheet)**
    - Generic end to end process flow
    - Capture field ticket data fields
  - **Drilling Software Field Ticket Integration**
    - Generic end to end process flow
    - Capture field data fields
  - **Technology Opportunities**
    - Explore Mobility
    - Explore IoT solutions

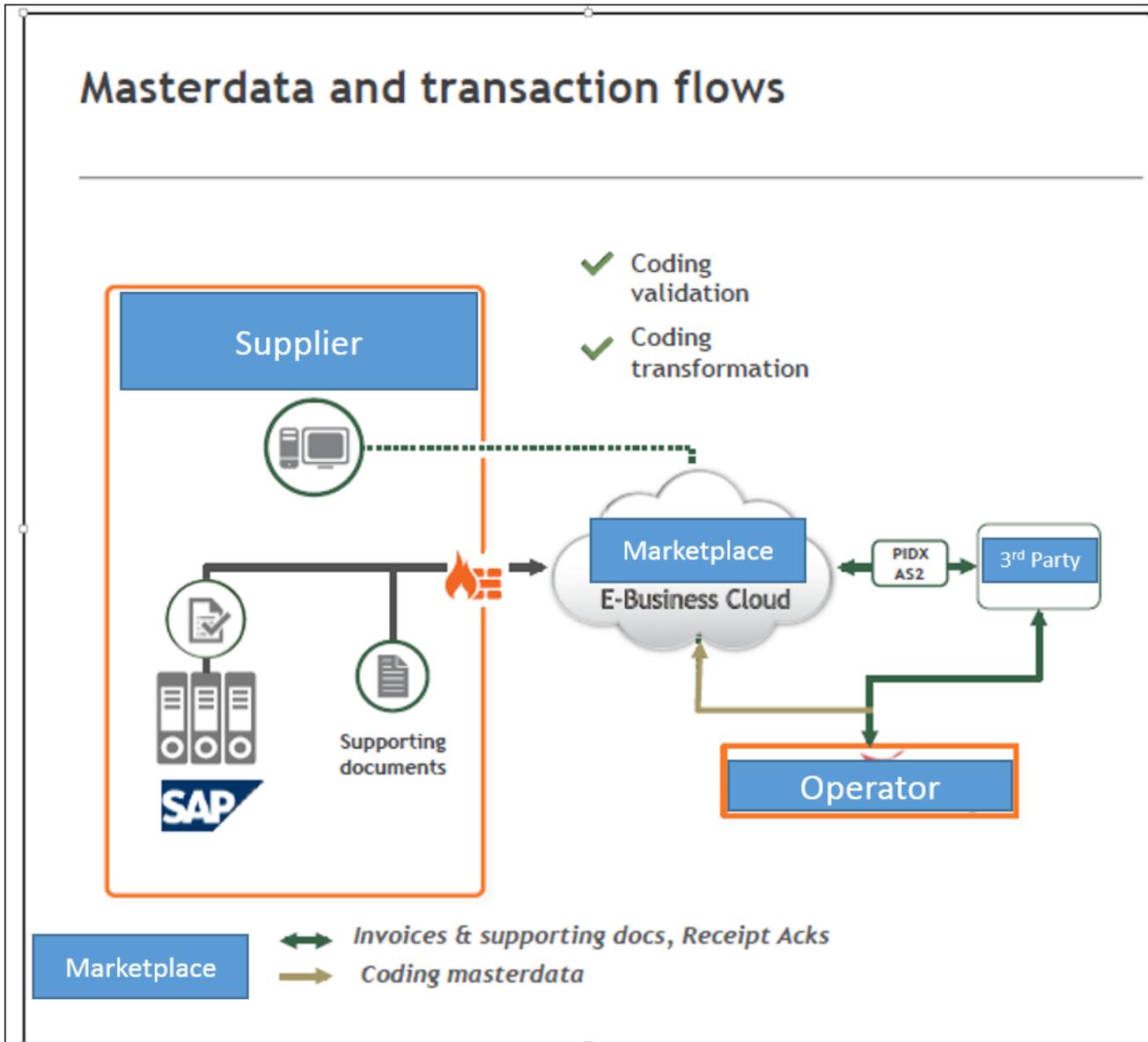
# ConocoPhillips Initiatives

# Overview

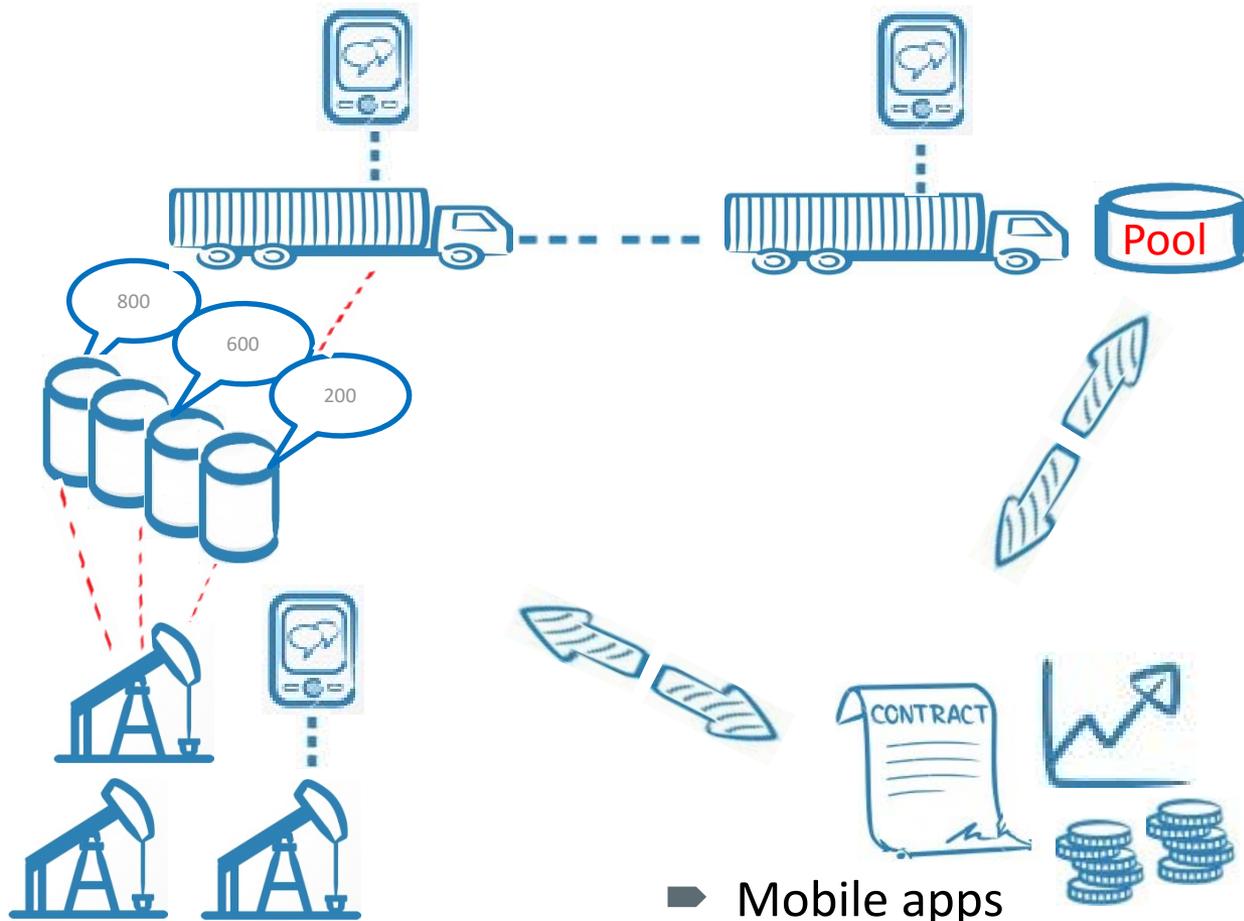


- Close Missing Ticket Gap
- Reduce Coding Errors
- Reduce trucking cost
- Validate Volume Delivered or Removed
- Increase Procurement Efficiency

# Data Coding Exchange (To reduce invoice errors)



# Field \ Run Ticket Overview



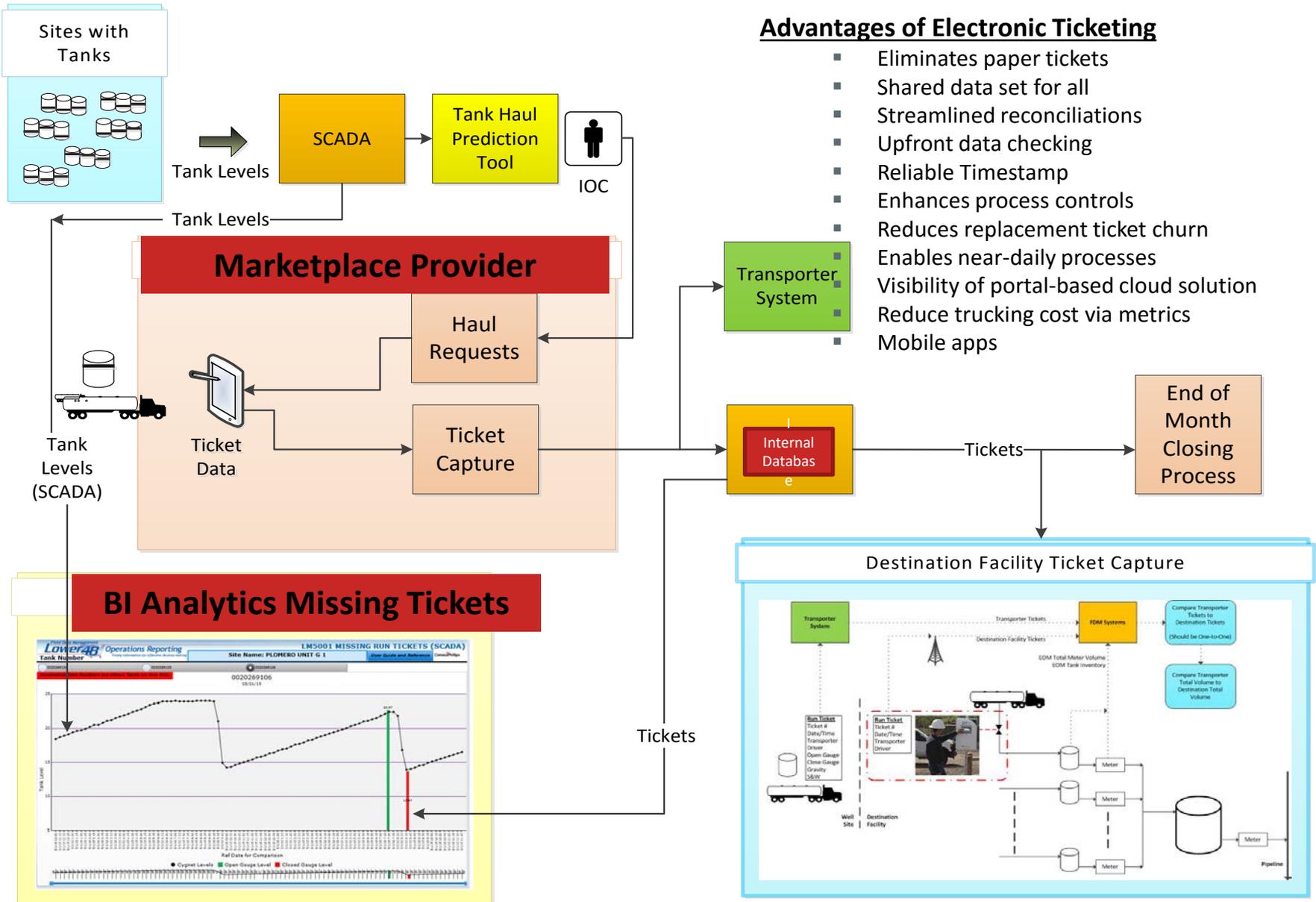
- One data set for all
- Portal based cloud solution
- Upfront data checking

- Mobile apps
- Electronic run tickets
- Streamlined reconciliations
- Enhances process controls

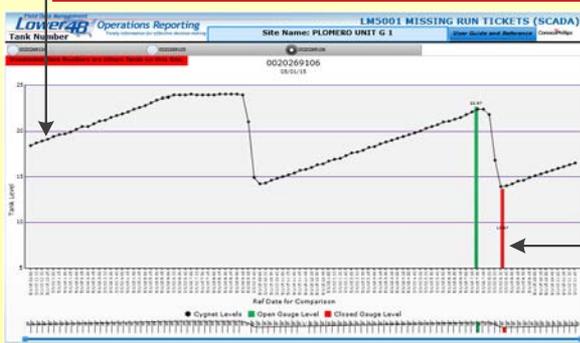
# Electronic Field Ticketing

## Advantages of Electronic Ticketing

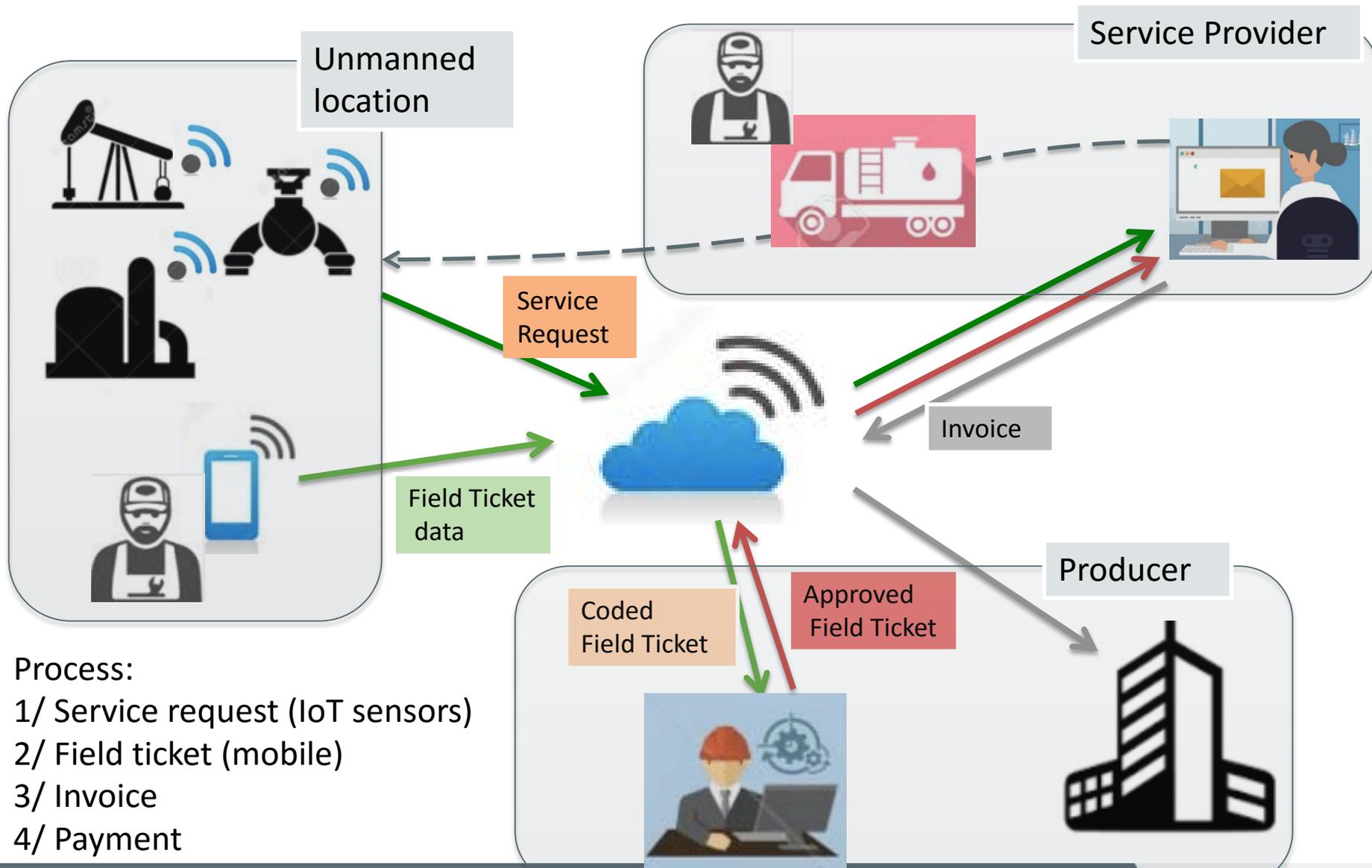
- Eliminates paper tickets
- Shared data set for all
- Streamlined reconciliations
- Upfront data checking
- Reliable Timestamp
- Enhances process controls
- Reduces replacement ticket churn
- Enables near-daily processes
- Visibility of portal-based cloud solution
- Reduce trucking cost via metrics
- Mobile apps



## BI Analytics Missing Tickets



# Leveraging IoTs and cloud integration to improve



Process:

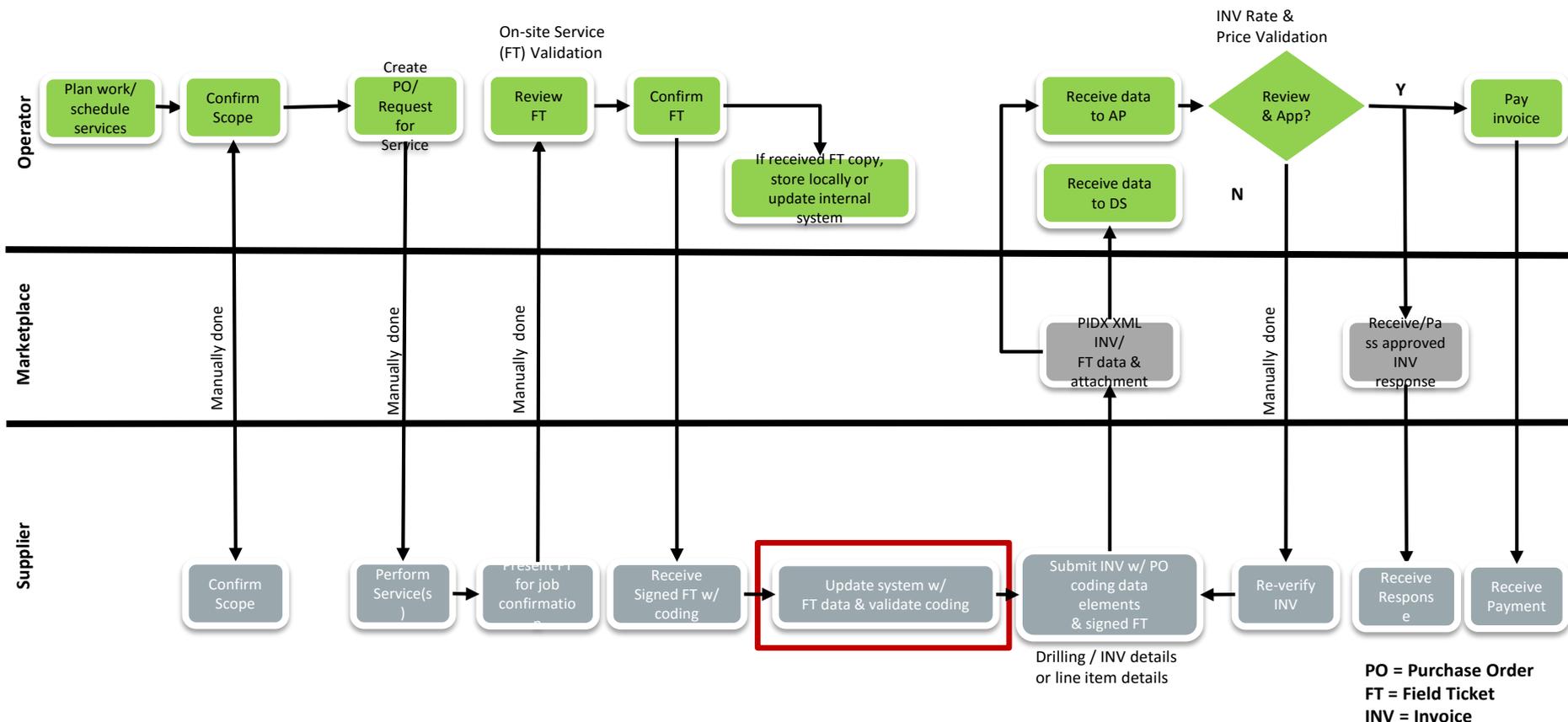
- 1/ Service request (IoT sensors)
- 2/ Field ticket (mobile)
- 3/ Invoice
- 4/ Payment

# Questions

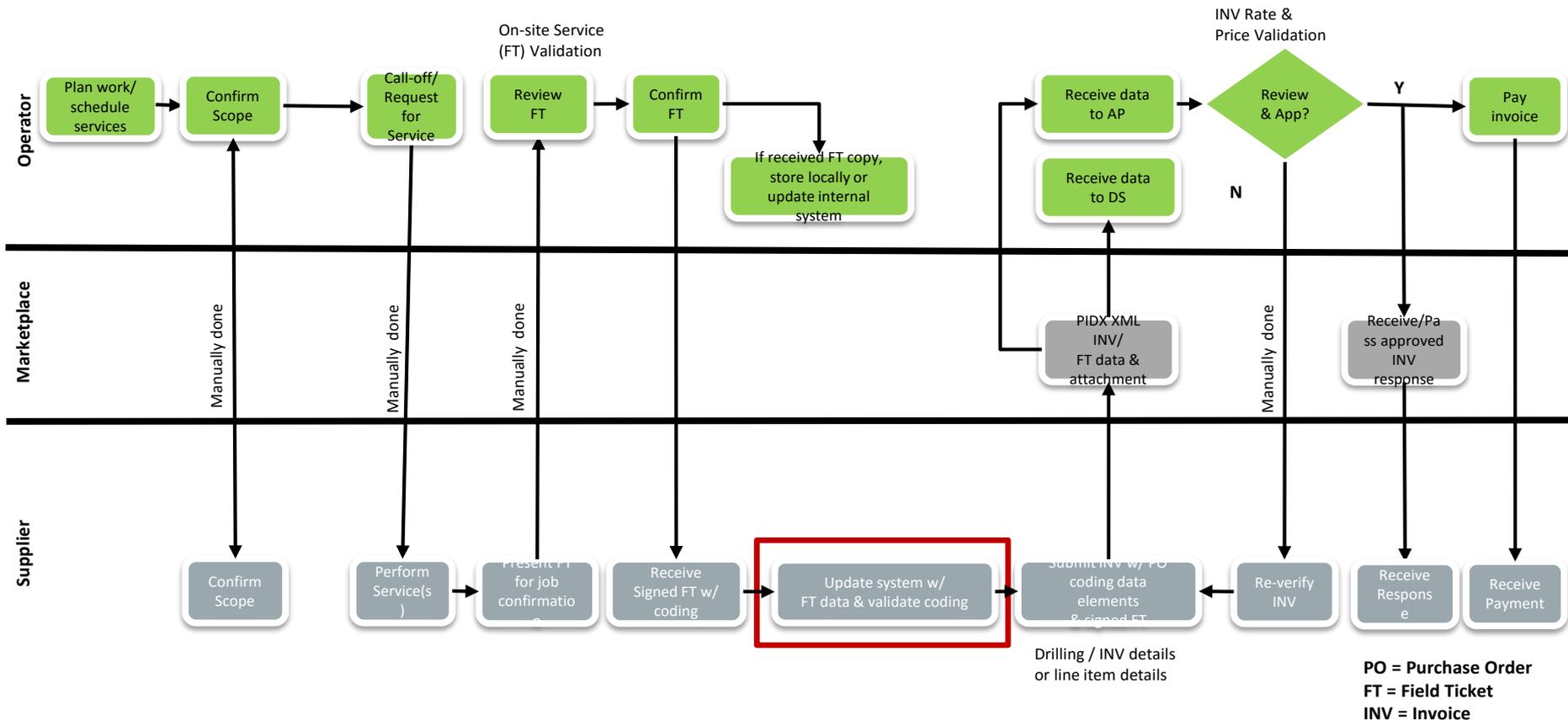
# Appendix (Business Process Meeting)

# Field Ticket Process Flow Overview – Purchase Order

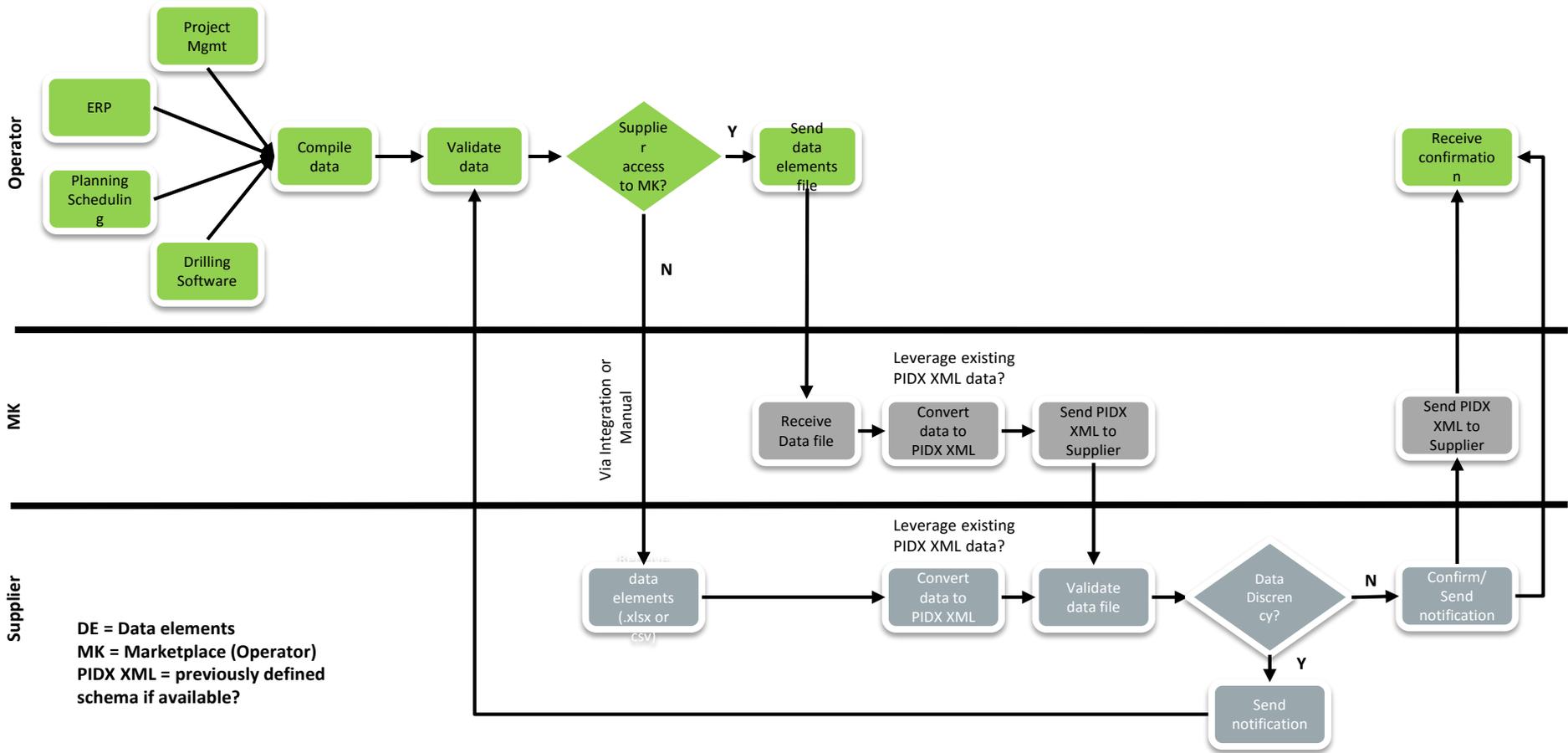
## Purchase Order



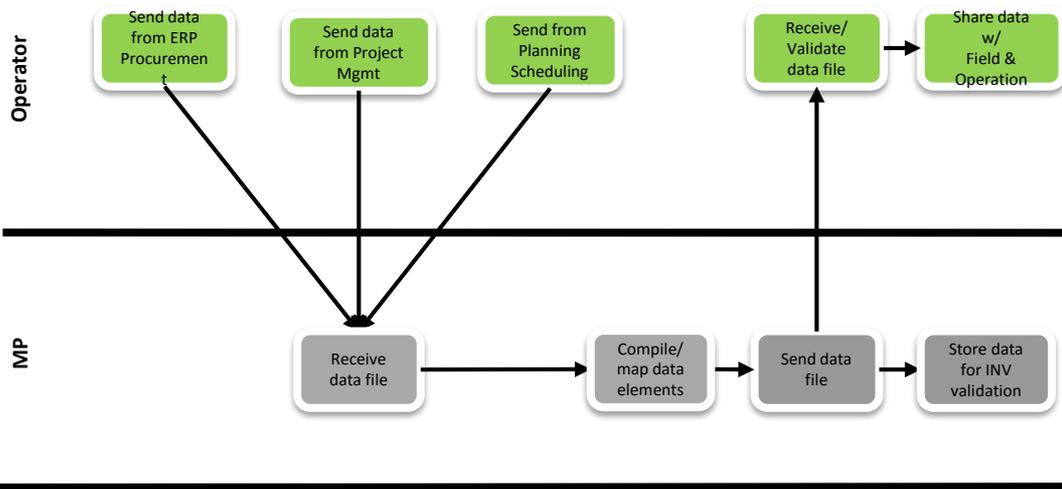
# Field Ticket Process Flow Overview – Call-Off



# Data Elements Validation (Pre-Field Ticket Process)



# Data Elements Validation (Pre-Field Ticket) Process – Proposed



FT = Field Ticket  
INV = Invoice  
MP = Marketplace (OPER)  
OPER = Operator  
RESP = Response  
SUPP = Supplier

# Data Elements Validation (Pre-Field Ticket) Process – Proposed

## Proposed list of data elements

- **API# (US)**
- **API# equivalent (outside US)?**
- **PO# / WO#**

## MP/Operator map (cross-reference) all remaining data elements

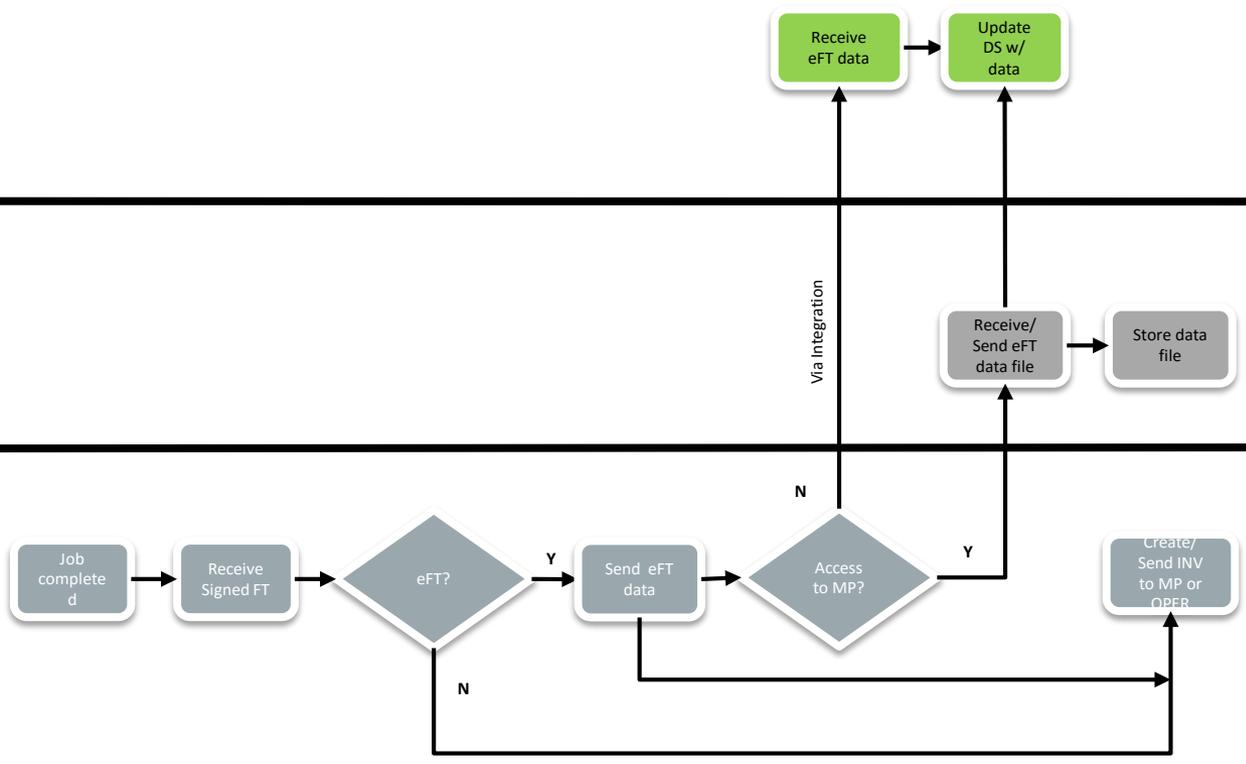
- AFE
- Supplier ID
- Approver
- Reviewer
- Contract# or/and OLA#
- GL Account
- Cost Objects & Activity/Op
- WBS Element
- Network
- Network Activity
- Cost Center
- Plant Code

# Drilling Software Data (sub process) – Proposed

Operator

MP

Supplier



DS = Drilling Software  
 eFT = electronic Field Ticket  
 MP = Marketplace (OPER)  
 OPER = Operator  
 SUPP = Supplier

# Finding and Recommendations

# Field Ticket Coding Errors Opportunities and Challenges

- ❖ Invoice Coding Errors are a problem across the industry. The issue causes longer time to pay for Suppliers and inefficient use of time for the Operator in the AP department disputing invoices over incorrect data.
- ❖ By reducing Invoice Coding Errors, Suppliers and Operators can gain efficiencies in the invoicing process. Both parties are willing to participate in a solution to simplify the process of transferring accounting codes across all documents in the transaction. If the issue is addressed in the Field Ticket, it corrects itself in the invoicing process.

# Business Value

- ❖ Reduce costs of manual validation of accounting codes
- ❖ Reduce reworks from Operator AP and Supplier AR
- ❖ Reduce Days Sales Outstanding for Suppliers
- ❖ Potential early pay discounts for Operator
- ❖ Reduce Supplier cost to maintain competitive pricing

# Challenges to be addressed to succeed

- Effectively share correct accounting codes with Supplier
- Eliminate hand written data transfer of accounting data (stamps, fields on paper Field Ticket, etc.)
- Proactively insure Supplier has the correct data
- Establish processes for Suppliers to follow when missing critical data
- Remove the responsibility of maintaining this data from field level personnel

# Field Ticket Integration with Drilling Software

- Field Ticket data is manually approved and keyed into Drilling Software by Operator Company Reps from paper field tickets provided by Suppliers. This is an inefficient and error prone process which introduces delays in Safety, Cost, and Performance metrics management.
- Supplier Field Ticketing data and approval should be integrated with Operator Drilling Software in near real-time through a PIDX standards based schema. This will facilitate the exchange of ticketing data between Suppliers and Operators providing operational efficiencies.

# Business Value

- Reduce costs of manual keying of field ticketing data by Company Reps through data integration
- Near real-time visibility into Field Spend and AFE management
- Better insights into drilling activities
- Operational performance improvements
- Proactively monitor and manage Supplier Operational, Safety, Cost, and Performance metrics
- Reduce Supplier manual reporting costs
- Reduce stand-by charges
- PIDX standard ticketing interfaces supporting all third parties

# Challenges to be addressed to succeed

- Map current processes
- Wells, AFE, supplier, and approval management
- Capture additional field data beyond field tickets
- Define coding and costing master data sources
- Price, Catalog, and Coding validation during import
- Determine which Company Reps can approve
- Associate tickets to right Well/AFE/GL after approval
- Address paper suppliers

# Unmanned Location Field Tickets

# Challenges to be addressed to succeed

- Getting the field ticket approved
- Getting the right coding
- But even more challenging (no company man onsite- large volume of transactions in some cases)
- ID of the well and location could be a problem
- Service request is based on either:
  - Routine maintenance (fluid hauling)
  - “Emergency phone call” associated or not to blanket order

# Challenges to be addressed to succeed

- Getting the field ticket approved
- Getting the right coding
- But even more challenging (no company man onsite- large volume of transactions in some cases)
- ID of the well and location could be a problem
- Service request is based on either:
  - Routine maintenance (fluid hauling)
  - “Emergency phone call” associated or not to blanket order

# Challenges to be addressed to succeed

- Getting the field ticket approved
- Getting the right coding
- But even more challenging (no company man onsite- large volume of transactions in some cases)
- ID of the well and location could be a problem
- Service request is based on either:
  - Routine maintenance (fluid hauling)
  - “Emergency phone call” associated or not to blanket order

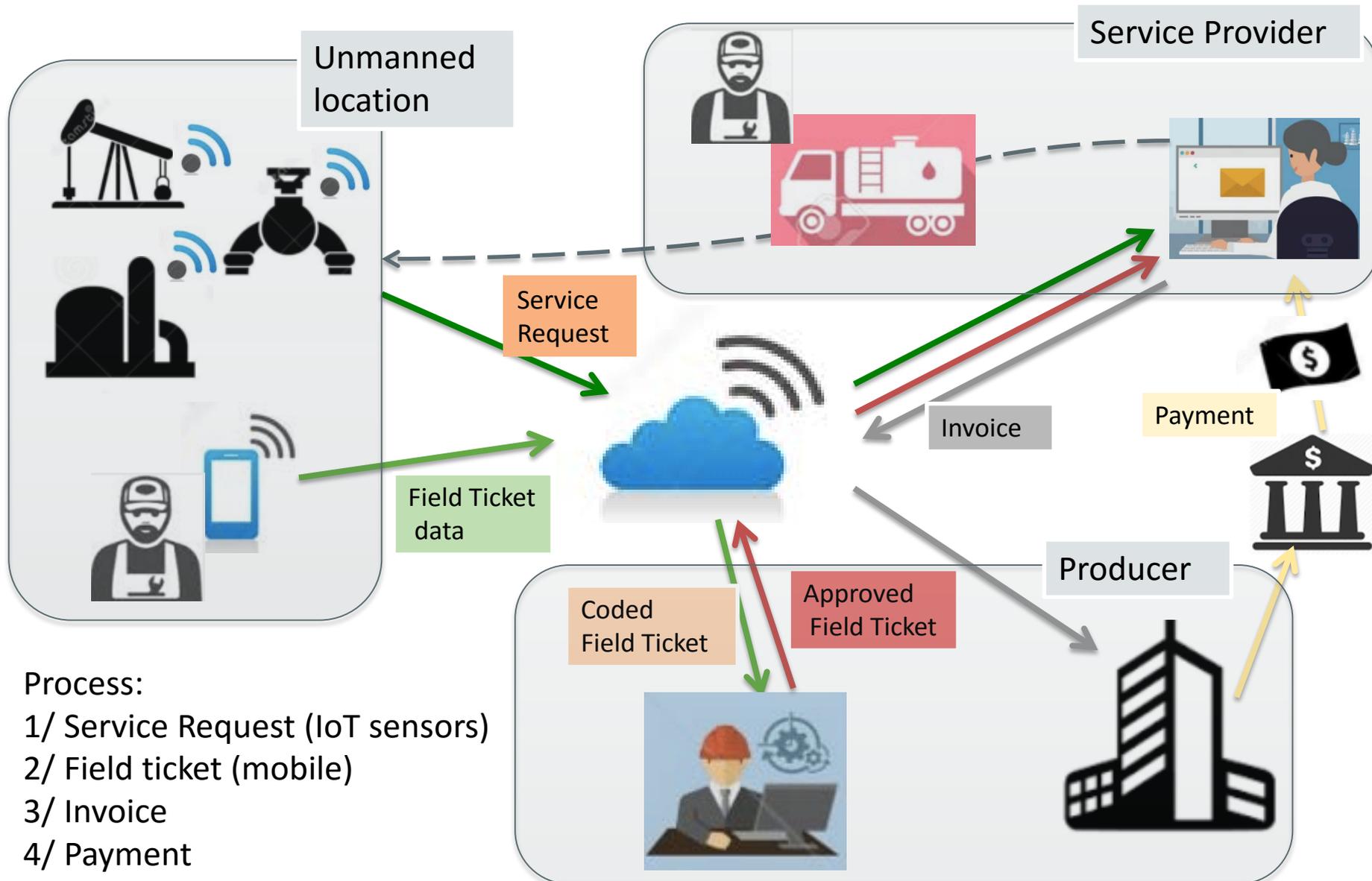
# Improving the process by deploying technology in phases

- Phase 3: devices in the field to capture asset ID
  - NFC, bar code, RFID readers capture asset ID, location and time onsite
  - Coding is automatically generated based on these elements
  - Enrichment of the field ticket and the invoice via a cloud based solution
- Phase 4: IoT devices
  - Service request is triggered directly by the sensors and sent to the service company

# Improving the process by deploying technology in phases

- Phase 1: coding (PO#, AFE #, etc...) is transmitted ahead of the job by the operator
- by emails or via a portal
- Phase 2 : Collaborative Field ticket portal between vendors and operators
- Field ticket is either keyed in or uploaded or B2B transmitted to a portal by a vendor then reviewed and coded by the operator

# The long term vision



# Supplier Price Issues and Complex Services

# Supplier Price Challenges & Complex Services

- Invoices get rejected due to wrong price for each line item (system does not check entire invoice and send list of errors at one time)
- Supplier not knowing of price changes until invoices get rejected
- Operator compares invoice pricing to FT pricing
- Supplier has no visibility of when operator approves price sheet
- Zero price items (complex pricing)

- Supplier/Operator/Marketplace Collaboration
  - Share Best Practice Success Stories
- Pilot Projects to Measure Efficiency - (May to Dec 16)
  - Explore Technology Options
  - Purchase Orders - (Limit Service or Material)
  - Master Data or Cheat Sheet Exchange
  - Operator Email Alert of Invoice Coding Issues

# Potential Benefits or Opportunities to Explore

- Tangible

- Close Missing Ticket Gap
- Reduce Coding Errors
- Reduce trucking cost
- Validate Volume Delivered or Removed
- Increase Procurement Efficiency
  - Touchless process and reduction of coding errors

- In-Tangible

- Enhance planning and scheduling
- Metrics to manage haulers (demurrage, mileage, time, etc.)
- Eliminate deliveries to unauthorized disposals
- Potential litigation or fines in event of incident
- Validation of load volumes

Auto compare SCADA volumes to ticket volumes and create exceptions