# Leveraging Design Thinking for Field Worker Enablement

**APIDX Success Story** 



3/10/2020



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### Introduction to 'Digital Field Service Management'

Digital Field Service Management, or 'DFSM' is a mobile application that enables timely confirmation of 3rd party work completed in the field, and produces an accurate estimate of the value of work done.

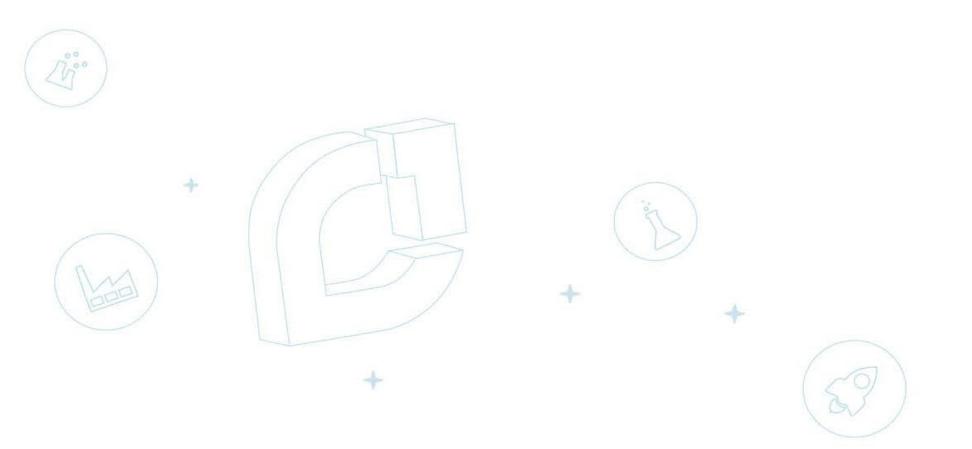
- Leverages an external facing API utilizing the PIDX industry data standard
- Connects Chevron to electronic information from external partners while meeting a high bar for security
- Informed by the "voice of the supplier" and the "voice of the Chevron field worker", gathered via user-centered field research and design thinking
- Launched with the first supplier in **August 2019**, and Site Managers have been digitally approving field tickets daily in the field over the last month

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May 7 - May 8, 2019	
Supplier	City
Acme Co.	Pecos, TX
Location	Pro forma estimate
BUENA VISTA 901	\$3,000.00
Sergio Gonzalez	Submitted May 8, 2019
Moving pipe	
May 7 - May 8, 2019	
May 7 - May 8, 2019	City
	City <b>Pecos, TX</b>
May 7 – May 8, 2019 Supplier	
May 7 – May 8, 2019 Supplier Acme Co.	Pecos, TX Pro forma estimate
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### DESIGN THINKING BENEFITS







#### **IDENTIFY PROBLEMS WORTH SOLVING**

#### UNDERSTAND ROOT CAUSES BEFORE EMBARKING ON A SOLUTION

#### LAUNCH PROJECTS WITHIN BUDGET & TIMELINE

### SECURE ROI BY HITTING KPIS & ENSURING USER ADOPTION

### **Project Stats**

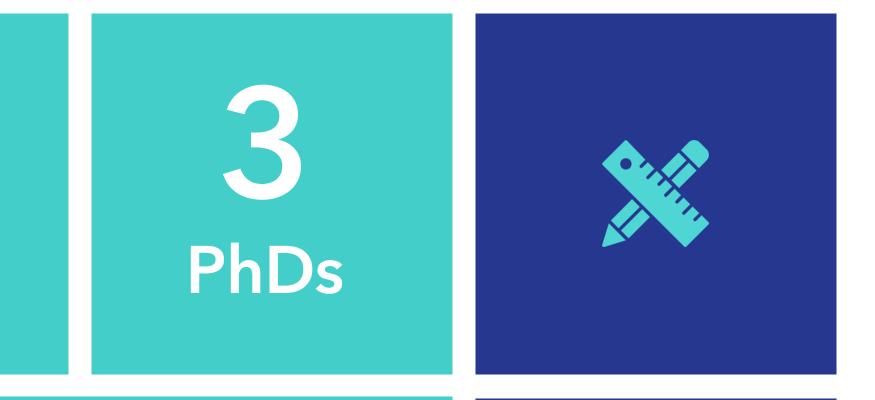
# 100+**HUMAN INTERACTIONS**



**CHEVRON DSMs AND WSMs CONSTRUCTION REPS SUPPLIER FIELD WORKERS SUPPLIER BACK OFFICE ADMINS** 

**CHAIONE BEHAVIORAL** SCIENTISTS **GATHERING DATA** 

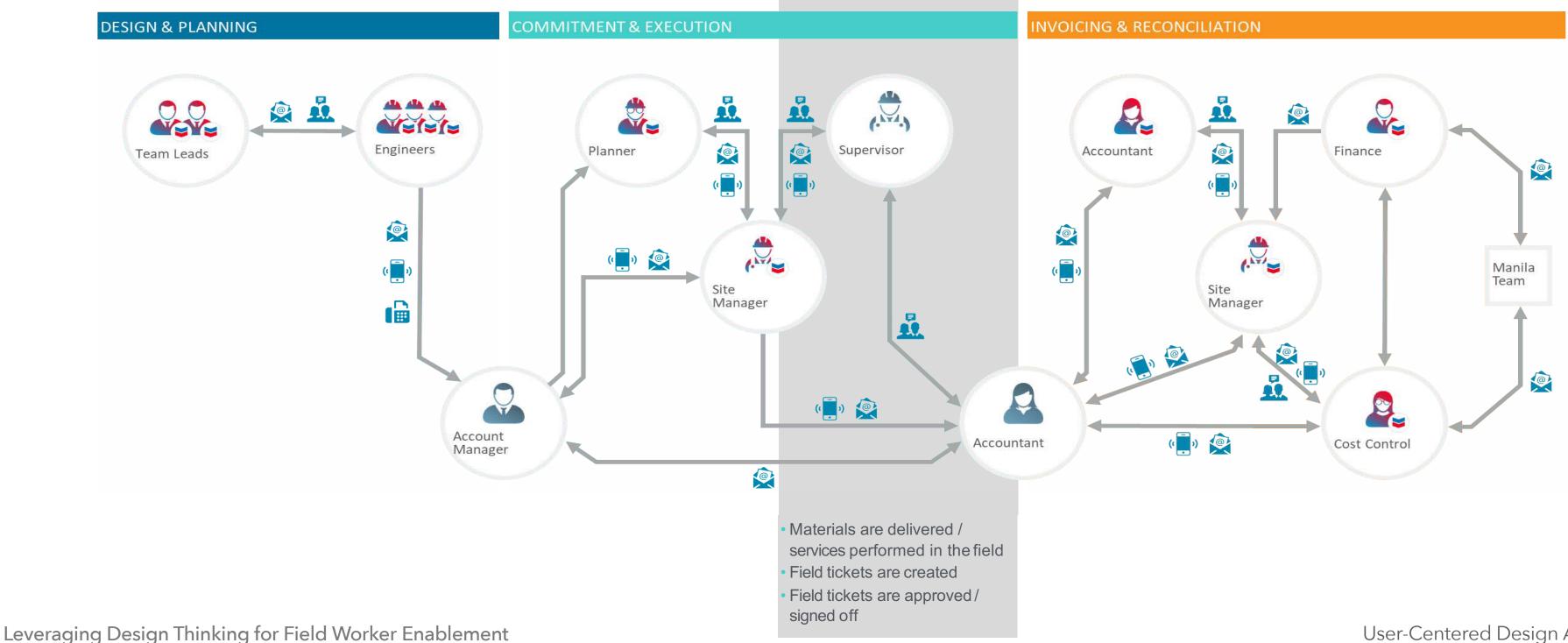




DESIGN THINKING TO FRAME **SOLUTION** 

## **Chevron Field Ticketing Process Today**

- Segmented communications through phone, email etc. impact the ability of users to collaborate efficiently
- Chevron employees manually review and approve field tickets each containing multiple pages
- Often takes months before field service is approved & paid, due to cumulative field ticket & invoicing issues/delays
- Projects have reconciliation issues due to a lack of real-time visibility into work done in the field.



### Voice of the Customer

"The old school way of having a paper ticket is almost archaic. It causes the field reps to review it, scan it and email it when you should be able to do everything off of an iPad."

– Chevron Facility Engineer

"When we're missing ticket information from the field, we send out emails, texts, and make phone calls to try to figure it out. This causes major delays and uncertainty."

– Supplier Supervisor

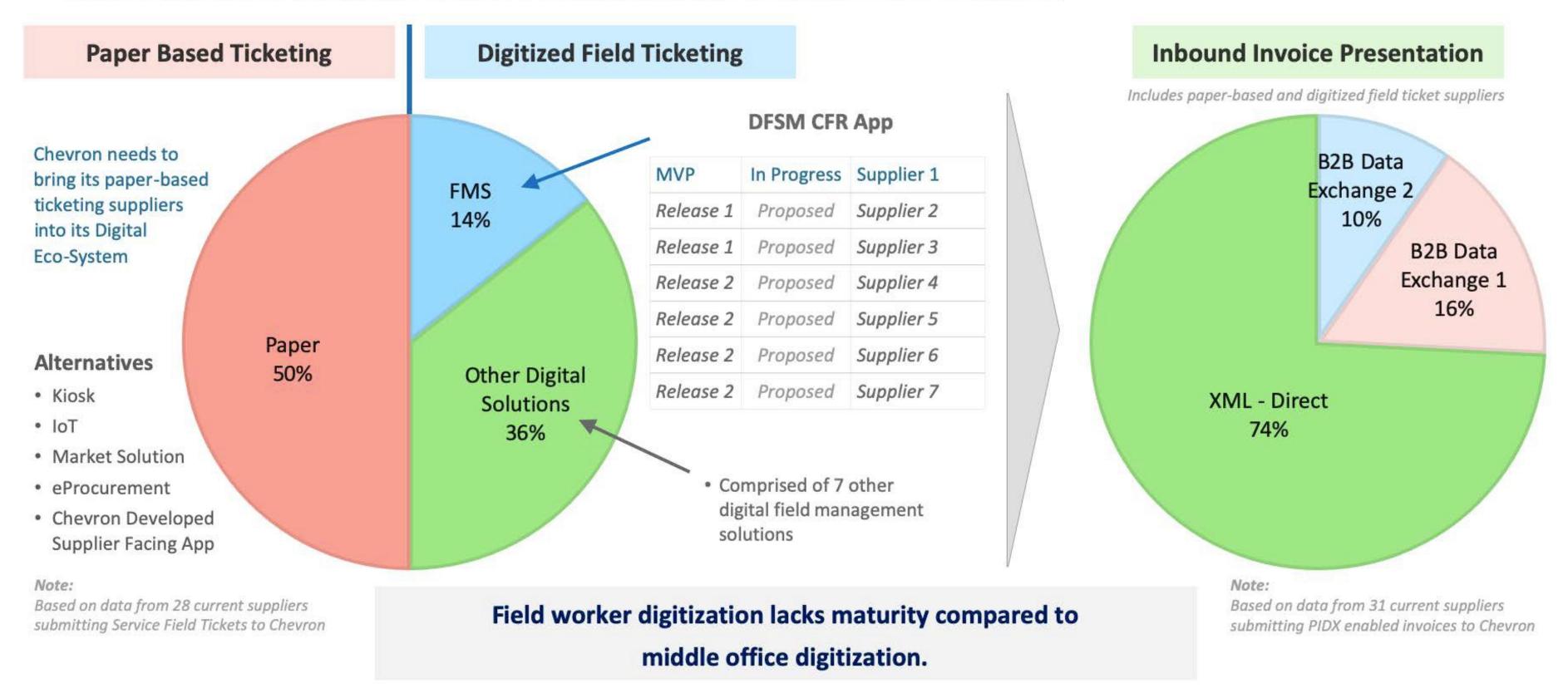




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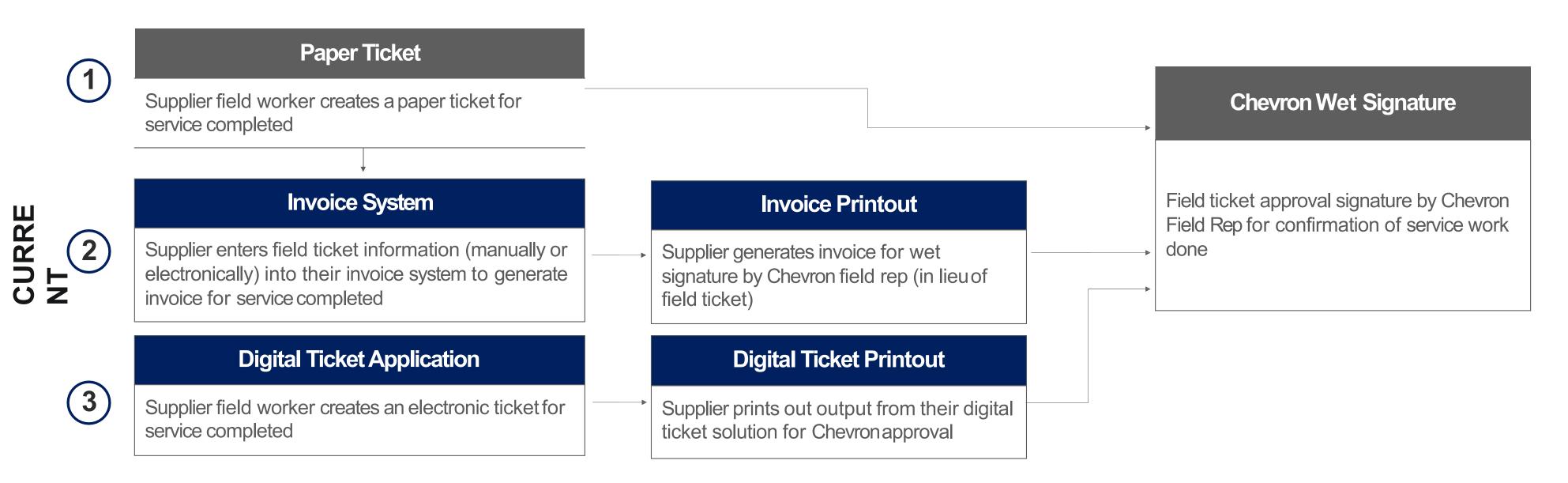
### **Supplier Assessment Findings**

#### 50% of suppliers are using digitized field ticket solutions (based on data from 28 suppliers)





## **Supplier Field Ticket Presentation Methods**



#### Supplier Field Ticket Data Sources [Existing]

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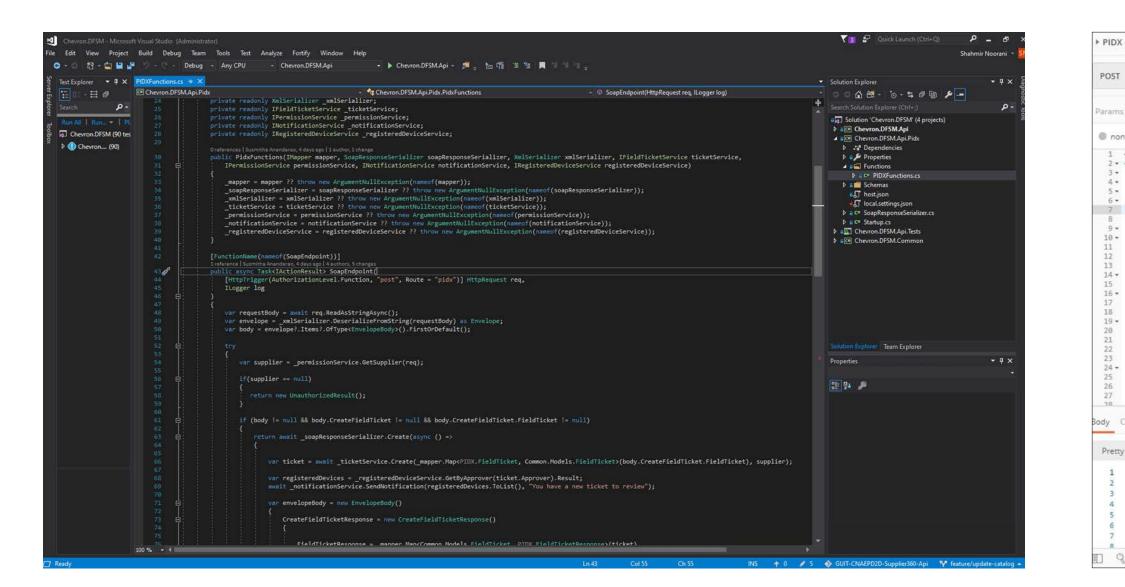
#### **API connection via PI**

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#### Chevron DFSM- Field Rep App [New Mobile App]

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### **Supplier Facing API - Enabled by PIDX**



For the backend, we created three Azurefunctions:

- 1. for PIDX implementation that service providers will integrate with
- 2. that the app uses to display and approve/reject the tickets
- 3. that the app uses to register devices for push notifications



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#### The suppliers will call the "CreateTicket" PIDX endpoint (which we can simulate with Postman)

### Thank You!



