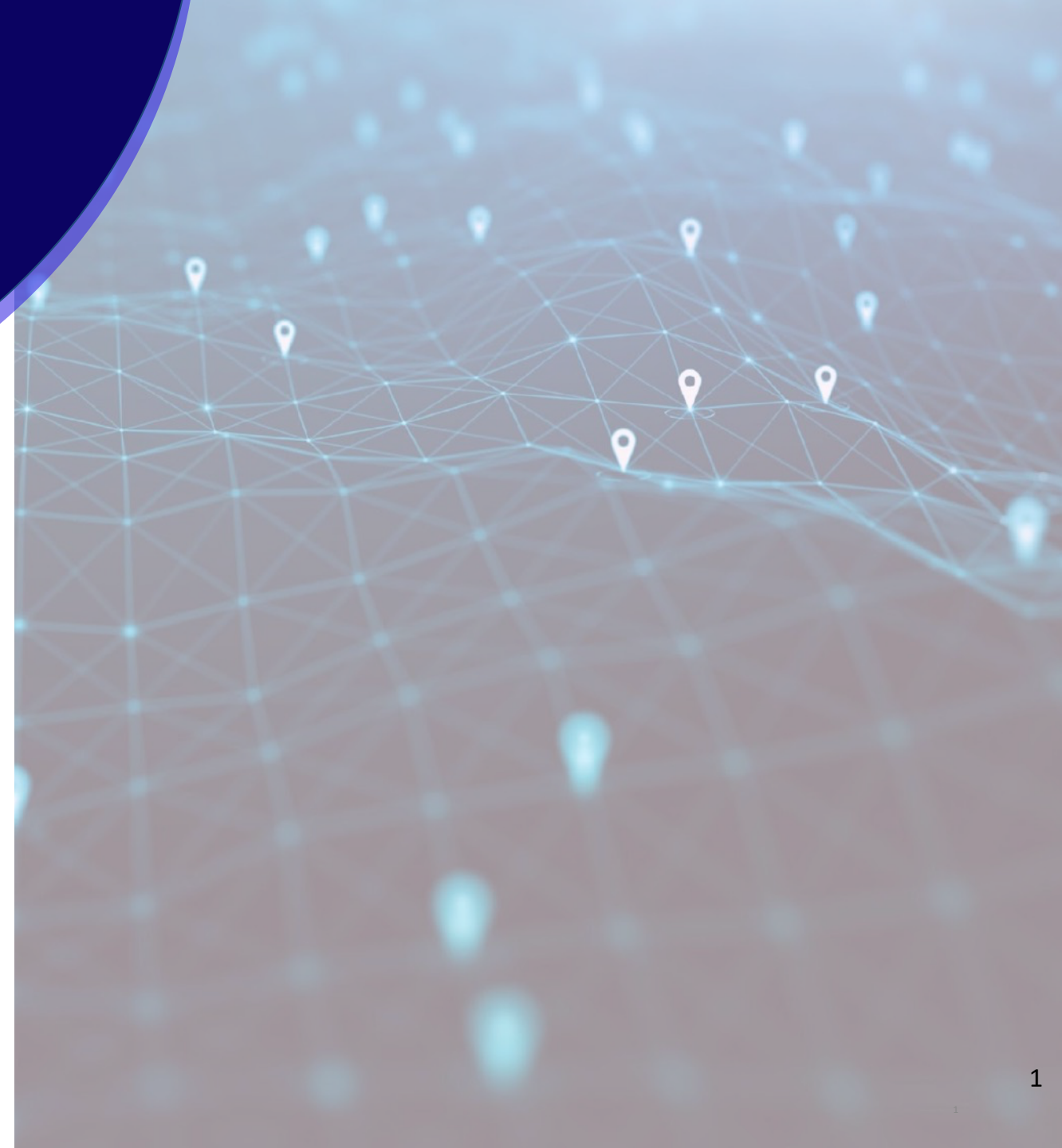


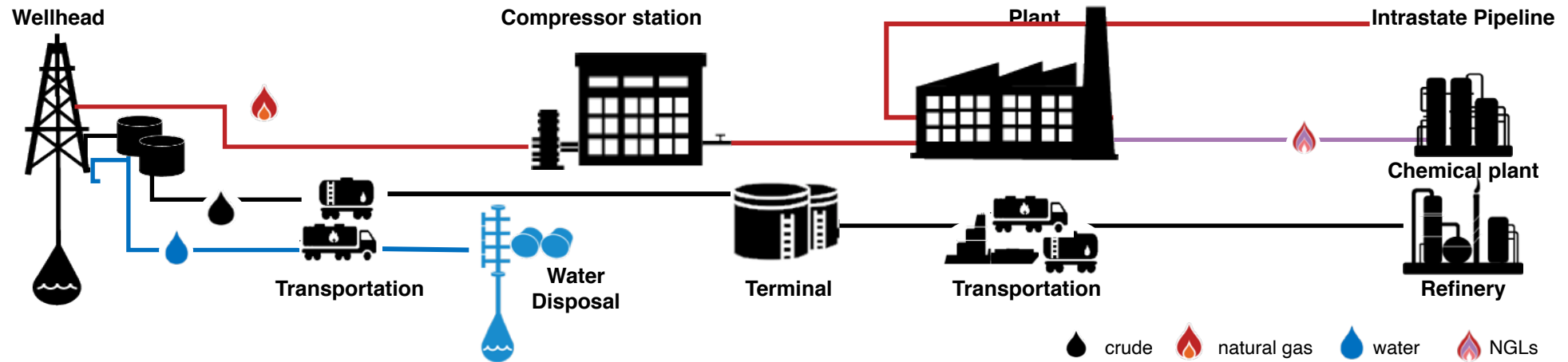
W Energy Improves Productivity for Field Service with Last Mile Logistics Tech

Shrivan Kamdar, Director of Product
Management, W Energy Software



All the Value Chain, One Platform.

Oil & Gas Industry Value Chain



W Energy Platform

UPSTREAM

MIDSTREAM

DOWNSTREAM

MEASUREMENT

MARKETING



Field Service Mgmt
Production Field Data Gathering
Production Acctg
Transportation Mgmt
Upstream ERP
Midstream ERP

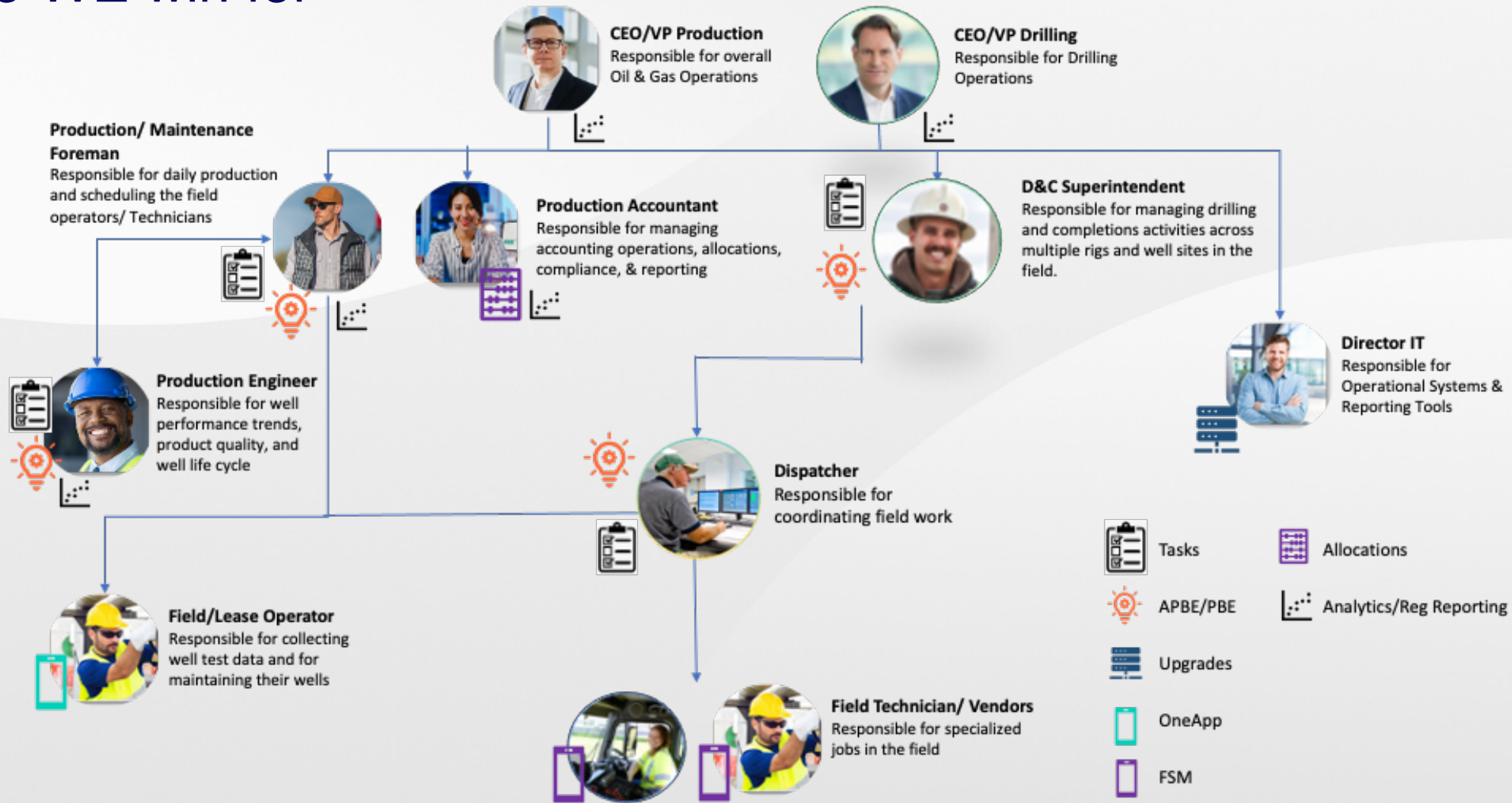
We are

W Energy software.

And together, let's rethink how to make energy technology even better.



Who WE win for



How do we think about our business? Is it working?

What's not in my control?



Commodity prices, labor fluctuations, and regulations


What strategic options do I have?



Hedging, Capex, Vendor/Supplier Cost Mgmt, Technology Consolidation and Labor optimization

What activities should I focus on to support my strategy?

CORE COMPETENCE




Finance/Trading/Accounting/Legal Production D&C/Compliance/Maintenance/Logistics

Have we empowered the right personnel with modern tools to support the above activities? Do they have what they need, when they need it, where they need it and in the right format? i.e. what is my Last Mile Delivery Strategy?


Digital



Non-digital / manual



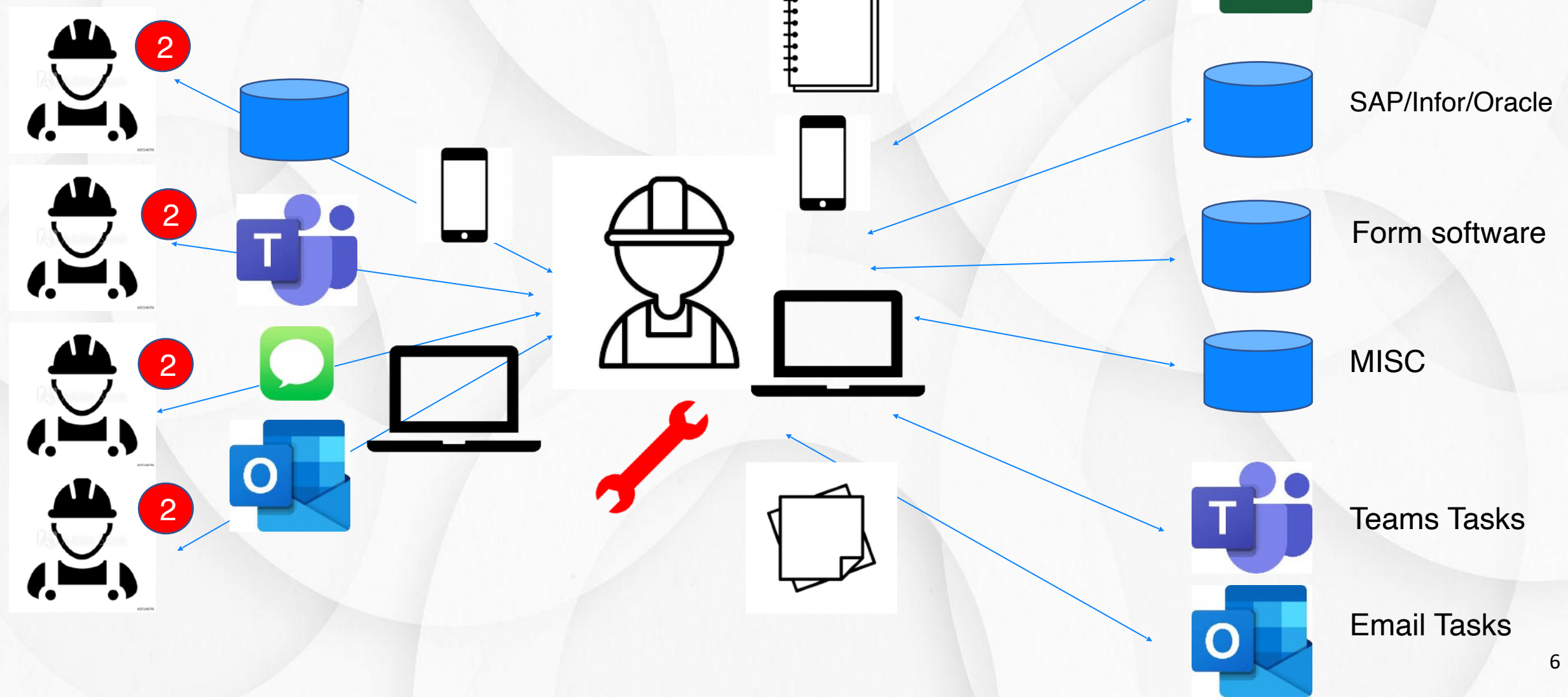
Manual





Cognitive load in the field

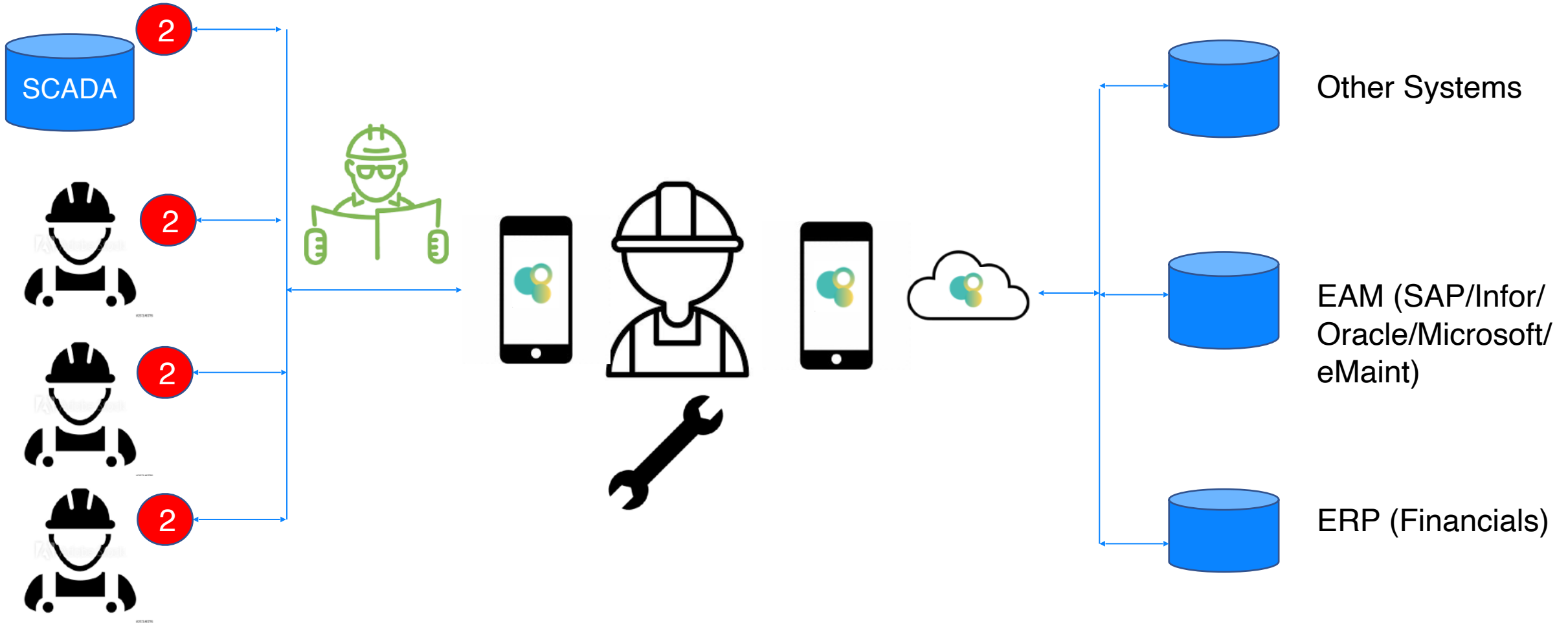
e.g. An operator gets 8 requests from 4 people across 4 systems on 2 device interfaces. Then he proceeds to manage those requests across 4 device interfaces across 6 different systems. Complexity = $8 \times 4 \times 4 \times 2 \times 1 \times 4 \times 6 = 6,144$ nodes – High cognitive load. This does not include the actual work requiring completion in the field.









Reducing cognitive load

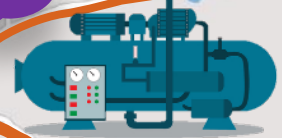
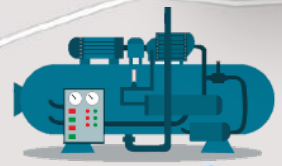
e.g. An operator gets 8 requests from 3 people and 1 system across 1 system and 1 device interface. Then he proceeds to manage those requests across 1 device interface and 1 system. Complexity = $8 \times 4 \times 1 \times 1 \times 1 = 32$ nodes; i.e. >99% reduction in cognitive load.



    Additional interface usage limited to communication as needed and not to document work completion

7. Well test

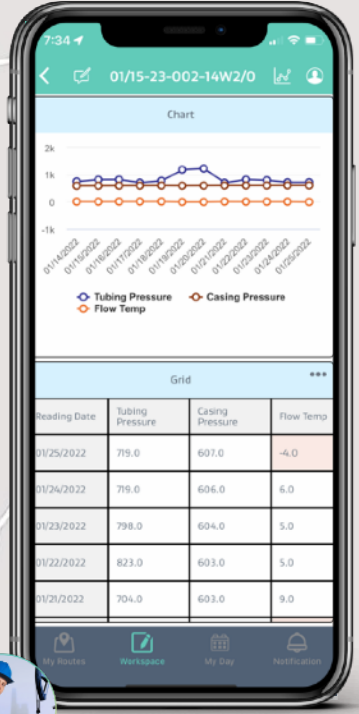
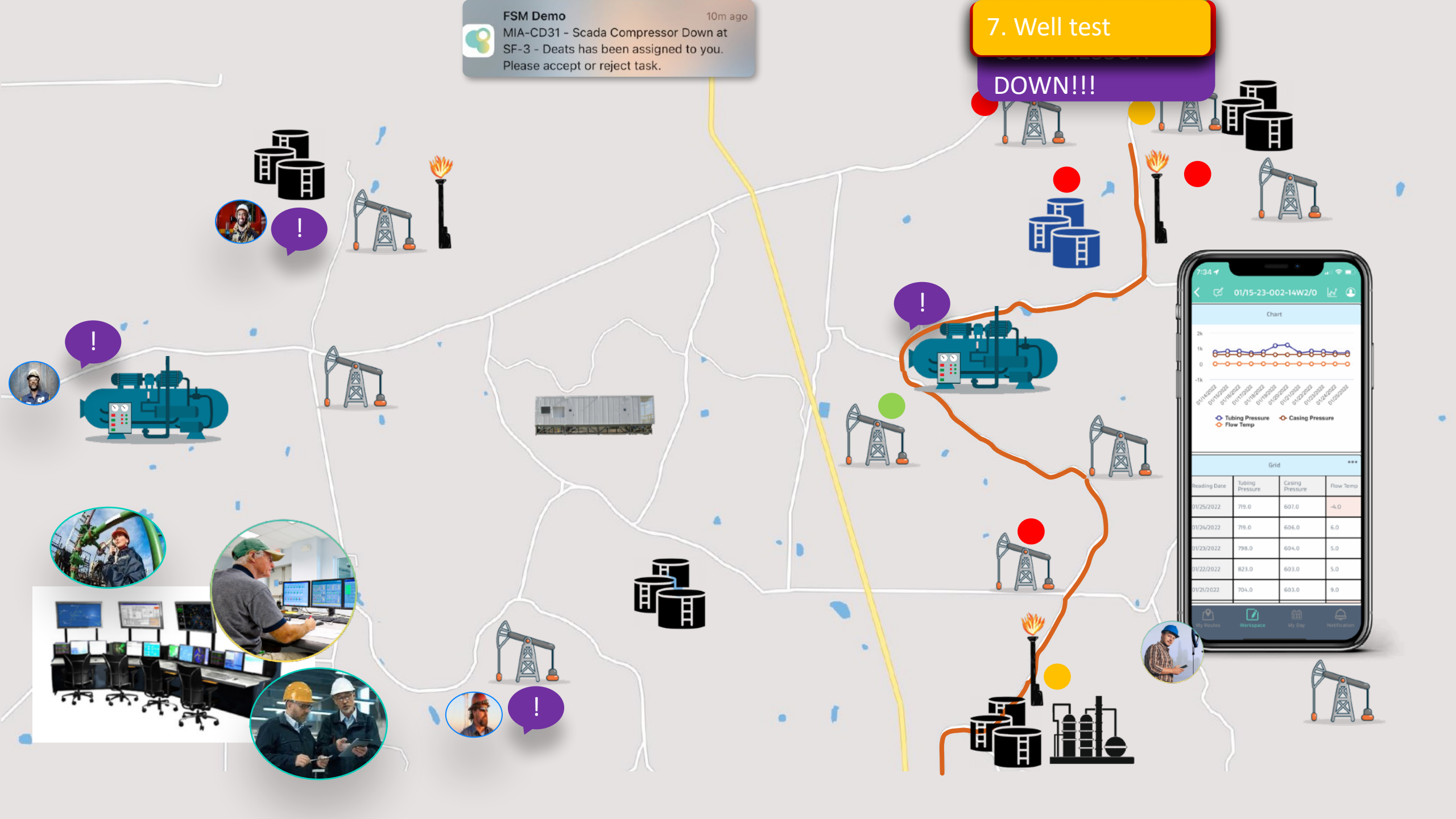
CRITICAL
DOWN!!!

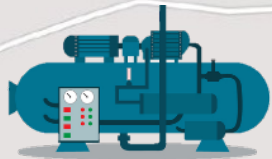
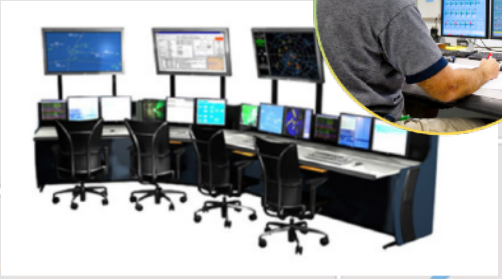
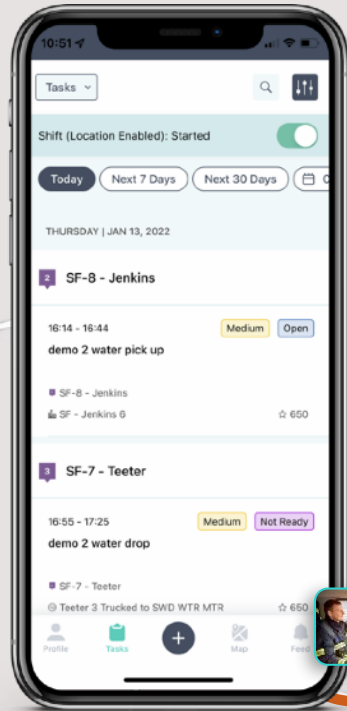


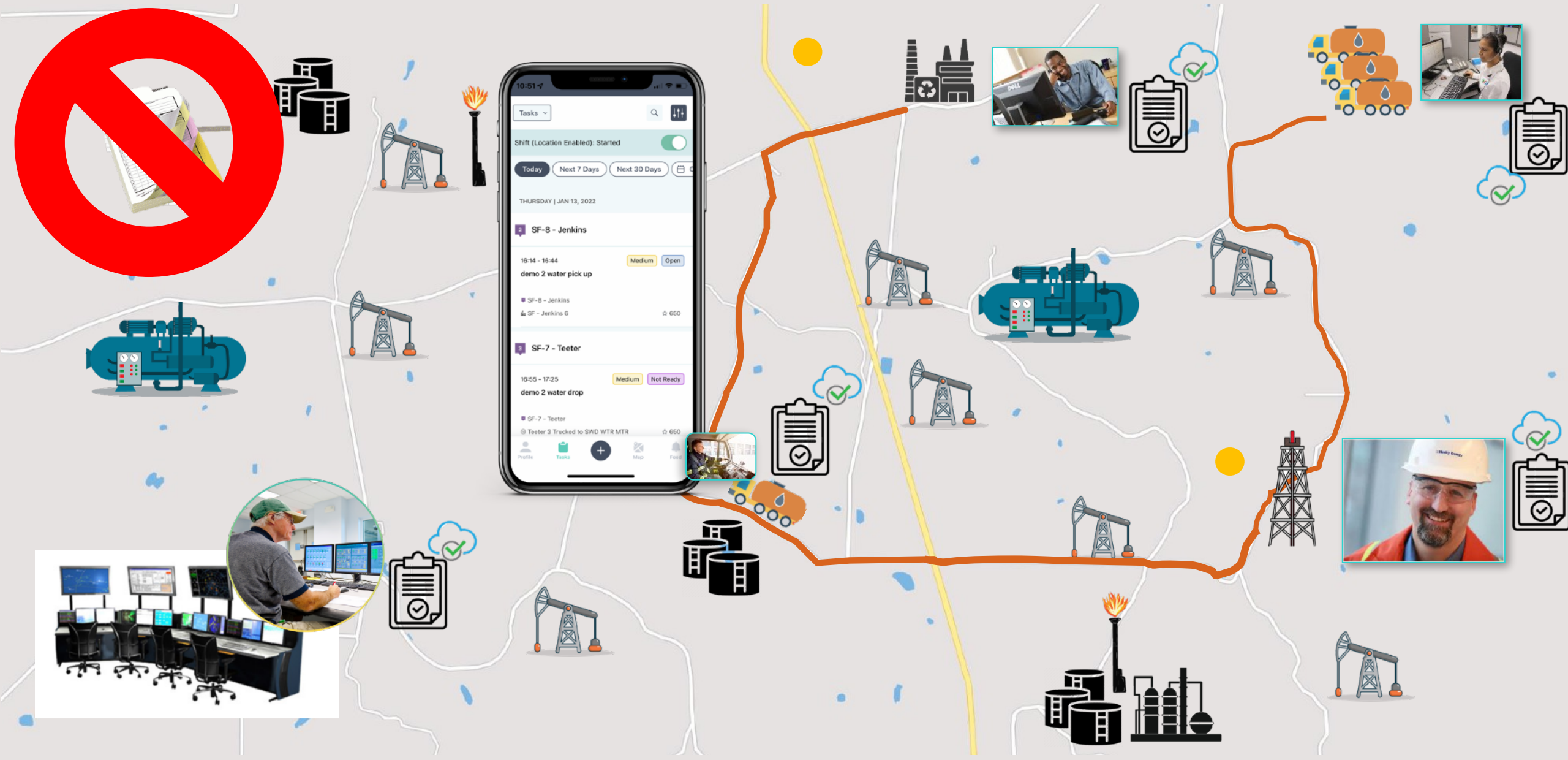
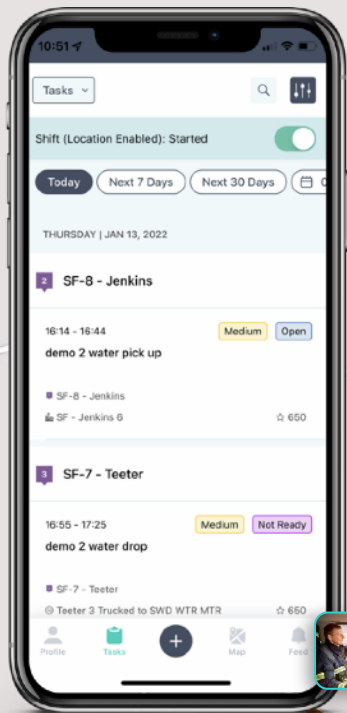
FSM Demo 10m ago
MIA-CD31 - Scada Compressor Down at SF-3 - Deats has been assigned to you. Please accept or reject task.

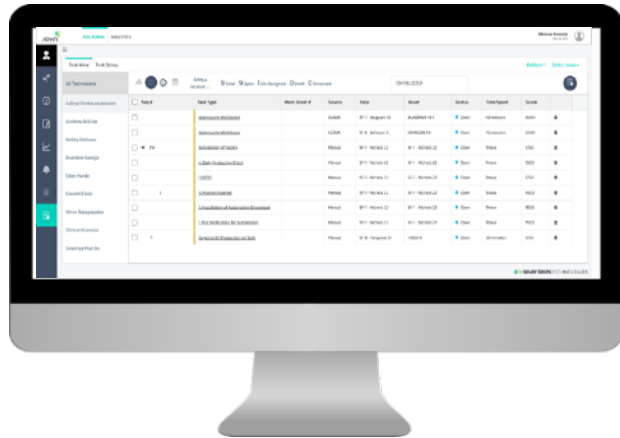
7. Well test

DOWN!!!





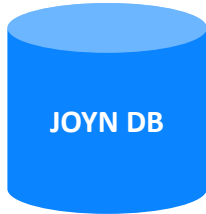




Admin



JOYN

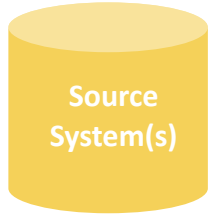


JOYN DB



JOYN Local
Mobile DB

JOYN APIs



Source
System(s)

SCADA
EAM
Production systems
3rd party emails

Live Locations

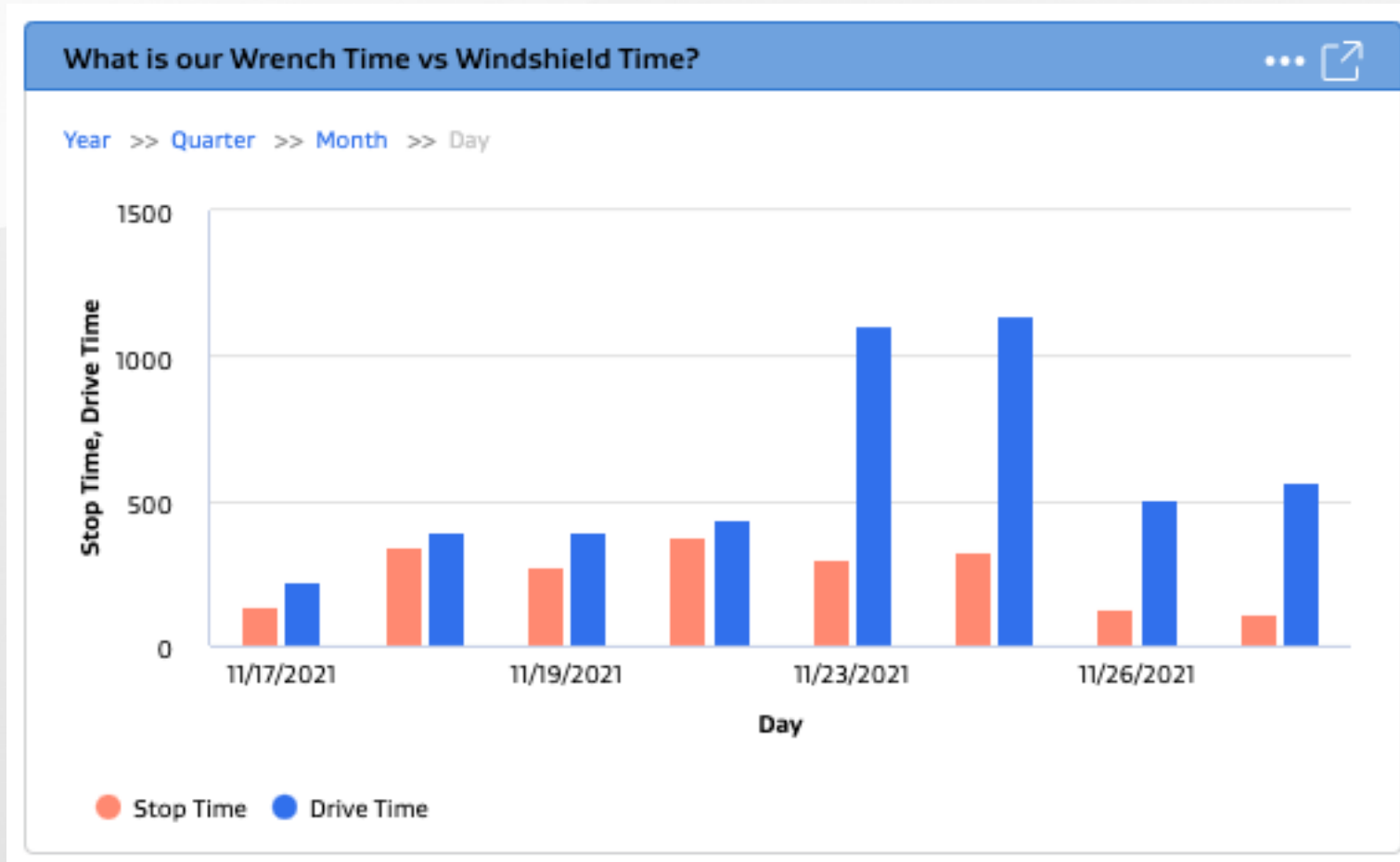
Tracked drivers ▾ ▾ All drivers Scoreboard Insights Map Nov 13 2022

rhouse@sm-energy.com

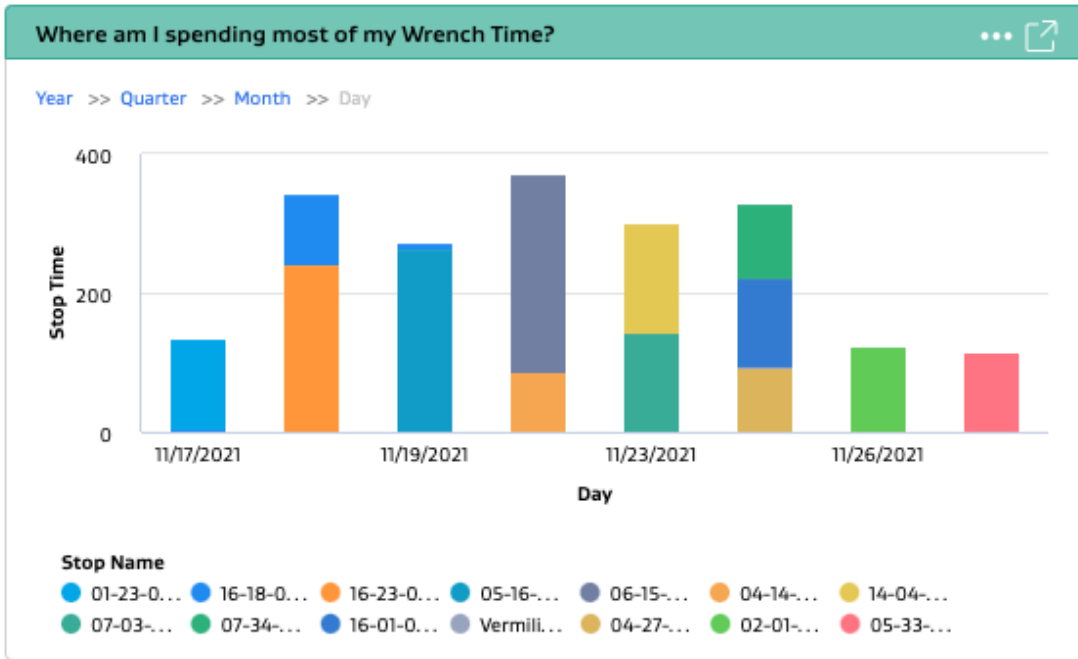
Activity	Location	Time
0.7 miles • 5 min	Webb County, Texas	10:13am - 10:18am
11 min	Webb County, Texas	10:18am - 10:28am
3 Visited	Webb County, Texas	10:28am - 10:29am
2 min	Webb County, Texas	10:29am - 10:31am
3 min	Webb County, Texas	10:31am - 10:35am
0.5 miles • 4 min	Webb County, Texas	10:35am - 10:44am
4 Visited	Webb County, Texas	10:35am - 10:35am
0.05 miles • 1 min	Webb County, Texas	10:35am - 10:42am
7 min	Webb County, Texas	10:42am - 10:44am
0.03 miles • 2 min	Webb County, Texas	10:44am - 10:45am
0.2 miles • 1 min	Webb County, Texas	10:45am - 10:49am
4 min	Webb County, Texas	10:49am - 10:49am
1 min	Webb County, Texas	10:49am - 10:52am
3 min	Webb County, Texas	10:49am - 10:52am

12 hr 24 min • 116.0 miles

Location Analytics



Location Analytics



Wrench time at location Details

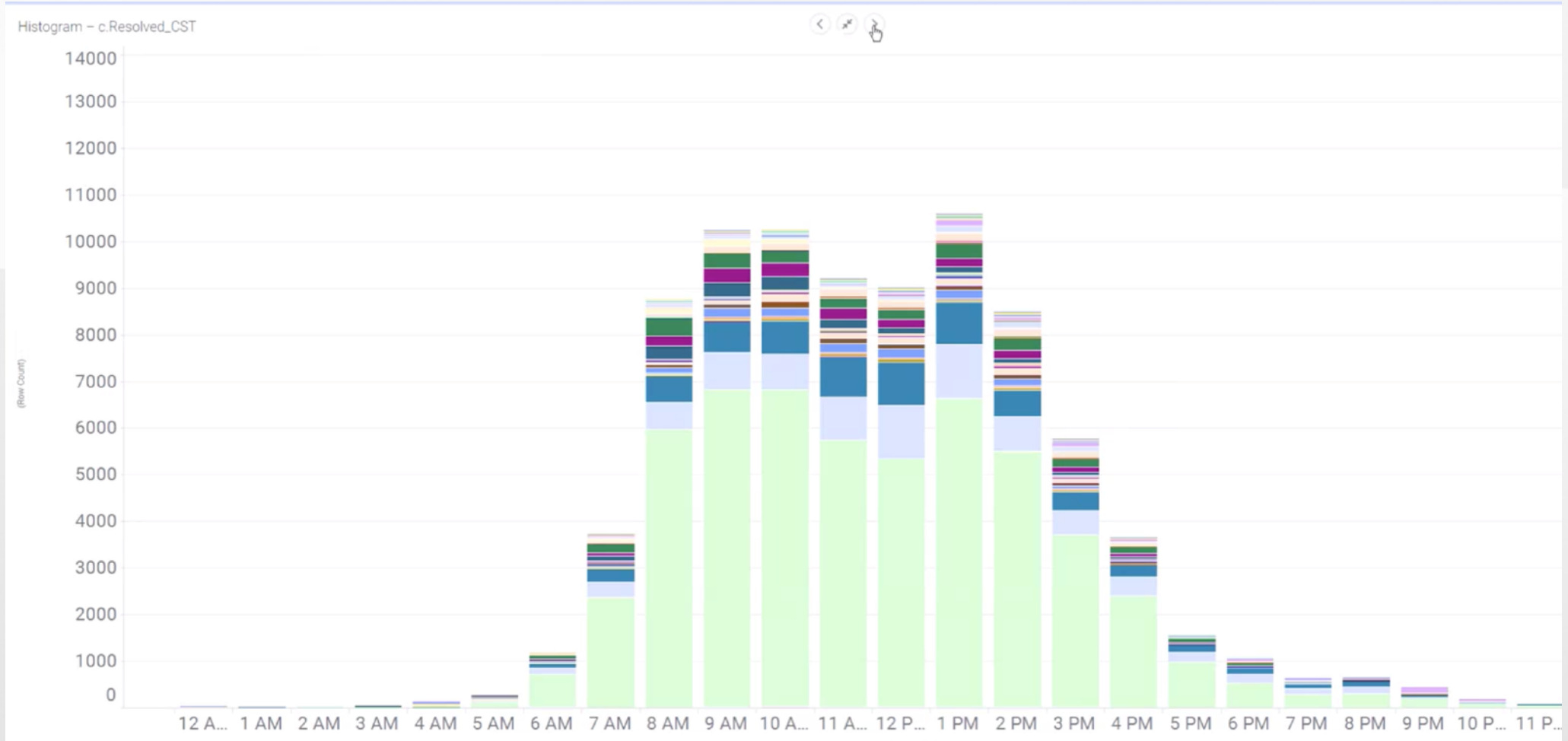
Stop Name	Stop Time	Resolved Task Count
16-23-051-12W5	243	2
16-18-051-11W5	102	1
16-18-051-11W5	8	-
05-16-051-12W5	265	3
06-15-052-11W5	285	1

15

Task Details - Reading Date (11/15/2021), User Full Name (Dylan Peacock), Stop Name (01-23-051-12W5)

Date	Task Number	Stop Name	Well Name	Task Type Name	Task Count	Planned Duration
	CAN-ADMT3	01-23-051-12W5	00/04-13-051-12W5/0	AD Hoc Maintenance Task	1	10.00
	CAN-TSES1	01-23-051-12W5	00/03-13-051-12W5/0	Test Small Engine Service	1	60.00
	CAN-TSES3	01-23-051-12W5	00/04-13-051-12W5/0	Test Small Engine Service	1	60.00

Task Load Analytics



Demo

- ❖ Dispatcher dispatches a task to a field tech
- ❖ Field tech accepts the task and completes it
- ❖ Dispatcher reviews the completed task
- ❖ What's next for JOYN + Hypertrack