

# SAP Innovation Awards 2023 Entry Pitch Deck

## Streamlining & Digitalization of Last Mile Delivery Process

alfanar

PUBLIC





# Company Information

<b>Company Name</b>	alfanar	
<b>Headquarters</b>	Riyadh , Kingdom of Saudi Arabia	
<b>Industry</b>	Manufacturing	<b>No of Employees</b> +20,000
<b>Web Site</b>	<a href="https://www.alfanar.com/index">https://www.alfanar.com/index</a>	

alfanar is primarily engaged in manufacturing electrical construction products, EPC solutions for conventional and renewable power plants, allied engineering services and design engineering. We have built up an international presence throughout much of the Middle East, Asia, Africa, and Europe.

alfanar is committed to meeting the ever-growing demand for power infrastructure across the world. Through our construction arm, we provide turnkey EPC solutions for conventional and renewable energy power plants and water treatment facilities.

The company is passionate about minimizing the environmental impact of the energy industry and we recognize that the future of the industry depends on embracing alternative energy sources. alfanar energy specializes in developing and investing in renewable energy projects, including CSP, PV, wind energy, biomass, geothermal, and waste-to-energy.

# Streamlining & Digitalization of Last Mile Delivery Process



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## Challenge

- Non-availability of formal picking list documents & in-visibility of outbound delivery palletization
- Lack of control for some warehouse activities, such as validation before PGI
- Delay to update the system with actual delivery
- Manual confirmation depending on physical paper submission (analog POD) is time-consuming and inefficient
- Absence of shipment tracking
- Absence of driver's availability and location
- Unsatisfactory customer experience

## Solution

- Handling unit standard functionality in SAP with FIORI App. for stores picker
- [Cherrywork PoD](#) is an app. extension that uses SAP BTP services for the logistics team to plan and execute the shipment
- Mobile application is extended using SAP BTP services for drivers

## Outcome

- Eliminate paper-based process
- Provide real-time tracking of delivery to business
- Optimize delivery agent productivity
- Significant reduction in OPEX costs
- Contactless delivery
- Increased customer satisfaction

**8%** Enhance SLA delivery time

**30%** Enhanced manpower efficiency & reduction in OPEX cost

**40%** Real-time visibility into operations with increase in data accuracy

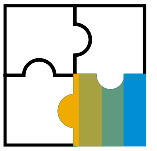


alfanar Proof of Delivery (PoD) is an outstanding App developed using SAP BTP that helped the business handle operations of logistics execution on a heavy-duty scale starting from planning and executing their daily work of shipment to monitoring and extracting reports.

**Humam Orabi,**  
Project Manager- alfanar PoD



# Participating Partner Information



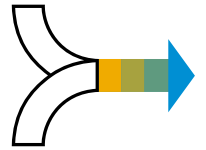
**Incture**<sup>®</sup>

## Incture

Incture has been delivering technology-enabled business innovation to SAP customers since 2006. Its intelligent digital applications and systems are delivering integrated hyper automation for SAP Customers. These digital applications integrate people, processes, data, systems to make work easy, and deliver a shift in business performance and people experiences. With offices in the US, Canada, India, Europe, Middle East, Southeast Asia and Australia, Incture has been instrumental in technology-enabled innovation for its customers across the world. Visit: [www.incture.com](http://www.incture.com).

Incture helped deploy [Cherrywork Proof of Delivery](#), a last-mile logistics application which gave alfanar more control over their operations leading to increased efficiency and on-time deliveries. This solution powered by the iOS SDK for SAP BTP leverages iOS features and integrates seamlessly with SAP systems to provide real time visibility into end mile logistic operations.

# Challenges and Objectives 1 of 2



## Global Challenges

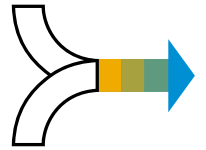
- The world of manufacturing is still undergoing robust changes, even two-years after the pandemic. From supply chain shortages, lack of technology, and worker shortages, with recovery is on its way, there is still uncertainty. Consumers are at the forefront of the negative trend with surge prices and delays in shipping leading to underwhelming customer experience. This has forced manufacturers to modernize and revolutionize the way they conduct business.
- Due to global surge in oil prices & increased transportation cost; operational cost of many manufacturing companies are at all time high and hence the need for more innovative ways to opt for digital strategy for efficiencies in supply chain.

## Business Challenges

alfanar AED Trading warehousing & logistics team required a robust solution to handle the logistics process and to facilitate the business to cater to the daily shipments and smooth operations of logistics department which are handling **4,000 shipments** monthly for more than **300 destinations** scattered in **14 cities from 6 hubs** to take care of the "**Last Mile Delivery**".

- Rising costs
  - Integrating new infrastructure to handle an increased volume of demand
  - Order cancellations and partial acceptance leading to additional expenses
- Delays
- Real-time visibility
- Inefficient routes
- Outdated paper-based delivery approach
- Increased operational cost

# Challenges and Objectives 2 of 2



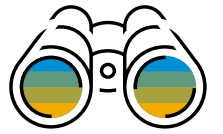
## Project Objectives

- Managing the pallet as a UOM inside the WH Operation (WH Currency)
  - Pack/unpack pallets using HU functionality
  - Handling unit ID generation
  - Using mobility functionality
  - Digitization of Proof of delivery process for shipment to customers and manage driver optimization
  - Digitize the delivery execution process end to end
  - Mobile application for drivers to receive trip details and navigate to customer locations
  - Integration with ECC to update Proof of delivery status
  - Increase efficiency in updating data of the delivery process
  - Increase data accuracy and live update on delivery status
  - Digitize customer approval as Proof of Delivery

## Why SAP

The application [Cherrywork Proof of Delivery](#) is built on SAP BTP which offers key benefits:

- Provides platform-ready services for **seamless integration between application, enterprise systems & databases**
- Makes **application building** or extending existing one more **agile & scalable**
- Decremental opex cost of platform as more applications are **build (economies of scale)**
- alfanar using large landscape of SAP technology and the decision of having SAP-BTP to meet alfanar business transformation strategy in making an integrated business with options of scalability



# Project or Use Case Details

In the current process, alfanar had SAP function built for logistics where the logistics manager can create shipments and assign the task to an internal or external driver who will carry out the delivery. Once the deliveries are made and the driver returns to the warehouse/plant location, the driver relays all the information of the trip and produces paper-based delivery notes for the delivery. These notes are then manually entered back to SAP by the logistics manager. Broadly speaking, the current solution has the following challenges:

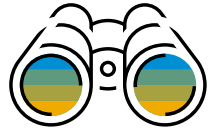
**Inability to track the trip / No validation of information / Inability to track productivity of drivers / Delay in invoicing & repeat trips due to partial or no acceptance / Lack of communication / Unsatisfactory customer experience**

## Process Before

- The delivery note is created by the sales team for the stores team to pick and pack (offline), then after preparing the outbound delivery (OBD), the store supervisor checks for post good issues to make it ready for loading to the driver's truck.
- The logistics supervisor creates the shipment information in SAP ECC system.
- Once the shipment is created, an available driver is assigned the shipment for delivery. This can be assigned to an internal or external driver.
- Once the driver is assigned the task, he can start his trip and make deliveries.
- After all the deliveries are made and he returns to the plant/warehouse; the information about the deliveries with the delivery note is relayed to the logistics supervisor.
- The supervisor then needs to manually type in this information into the application to upload it to the SAP ECC system as an attachment.

## Process After

- The delivery note is created by the sales team for the stores' team.
- Using the handling unit in SAP ECC and SAP Fiori app, the store picker prepares the content of OBD into palletization after picking the materials from shelves, make them ready for shipping and store supervisor PGI the OBD.
- OBD data is replicated to POD application, where the Logistics supervisor plan and create shipments accordingly.
- The trip is created from one or more shipments based on the shipment's location, size of shipment, and the dimension of the delivery vehicle.
- Once such a trip is created, the assigning of the Drivers can be performed via two Option:
- **Option 1: Logistic supervisor can assign the trip to a specific alfanar driver based on the availability.**
- **Option 2: Logistics supervisor can assign the trip to a 3rd party vendor based on availability.**
- A "one-time password" OTP is sent to the customer's mobile number. The driver starts the trip with his load of shipment, follows the route specified by the driver mobile application, collects the OTP & requests the customer to provide e-signature, upload the attachments if any and submit the shipment for delivery confirmation.



# Project or Use Case Details

## Process Before

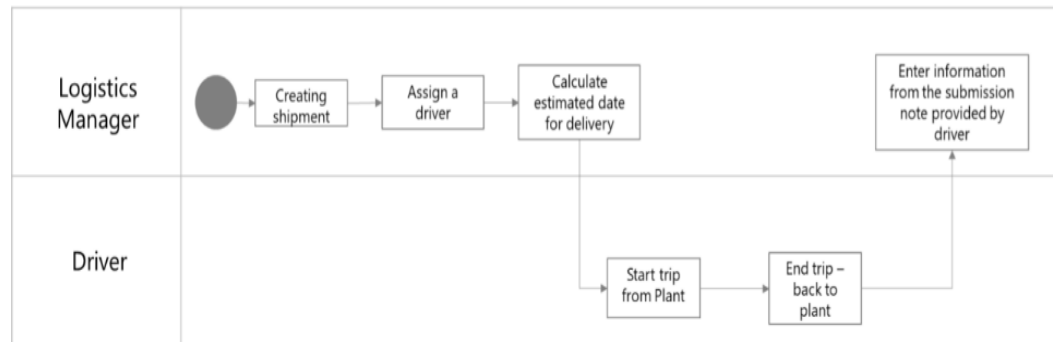
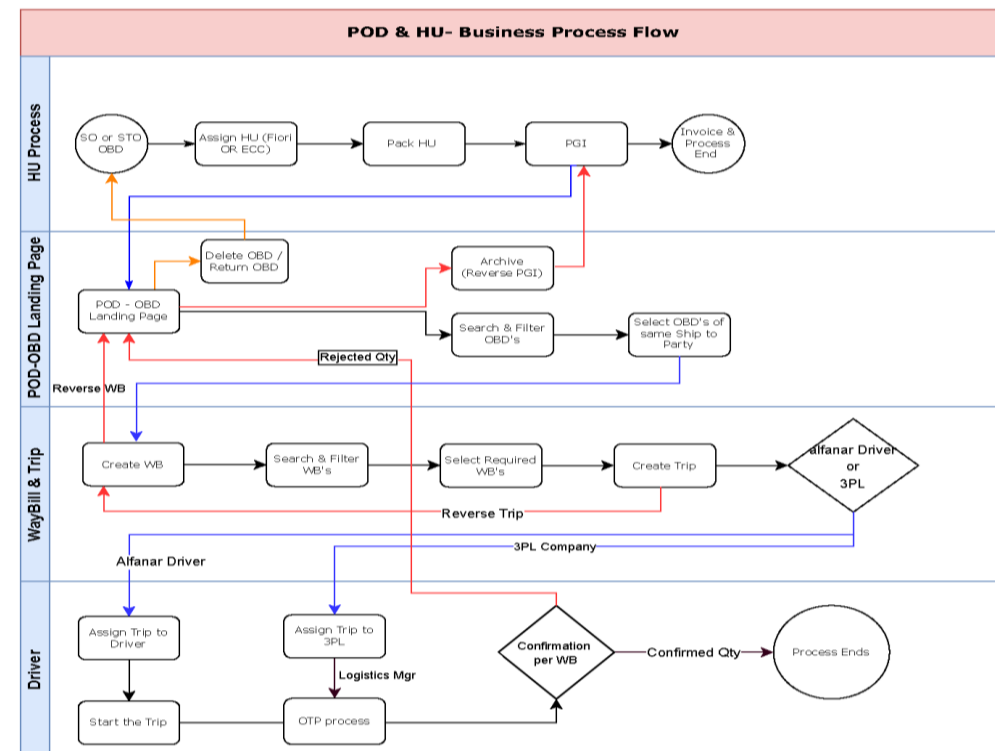


Figure 1: As-Is process flow

## Process After



# Benefits and Outcomes 1 of 2



## Business or Social

- Live tracking of shipments or any orders by the business team
- Measurable KPIs for stores, the logistics team, and drivers
- An enhanced logistic execution planning
- In case of any delays (e.g. vehicle breakdown or heavy rain) during the trip, the driver can use the inbuilt incident management functionality to appraise the logistics manager about the situation. The logistics manager can view the location of the truck and take appropriate action
- The application also has chat and feeds functionality, which can be leveraged by the logistics manager and driver for quick one-to-one or one-to-many communication, respectively
- Digitization of PoD is reducing paper-based process

## IT\*

- Managing the application using SAP BTP services allowed IT team to have many features including:
  - Ready-made services on SAP BTP reduce the development time of the following:
    - Business role and authorization
    - Monitoring Tools
    - Audit log
    - Workflow management
    - API Management
  - Seamless Integration with SAP ERP, SAC.
  - Enhanced business continuity

*\* IT benefits are required if you are using SAP Business Technology Platform products*

# Benefits and Outcomes 2 of 2



## People Related – Personal Perspective

- Drivers now have mobile application where they can view the assigned trip including shipments and customer locations and mobile number
- The mobile application also provides the driver with the most optimized route to make all the shipments tagged to that trip in the most efficient manner
- Logistics team can track the shipment status at any given time
- Customer shared positive feedback for the new process into more digital interactions --> (testimonial)-->
- The new PoD application makes the logistics team's lives easier than before as they don't have to upload and update the information of shipment manually



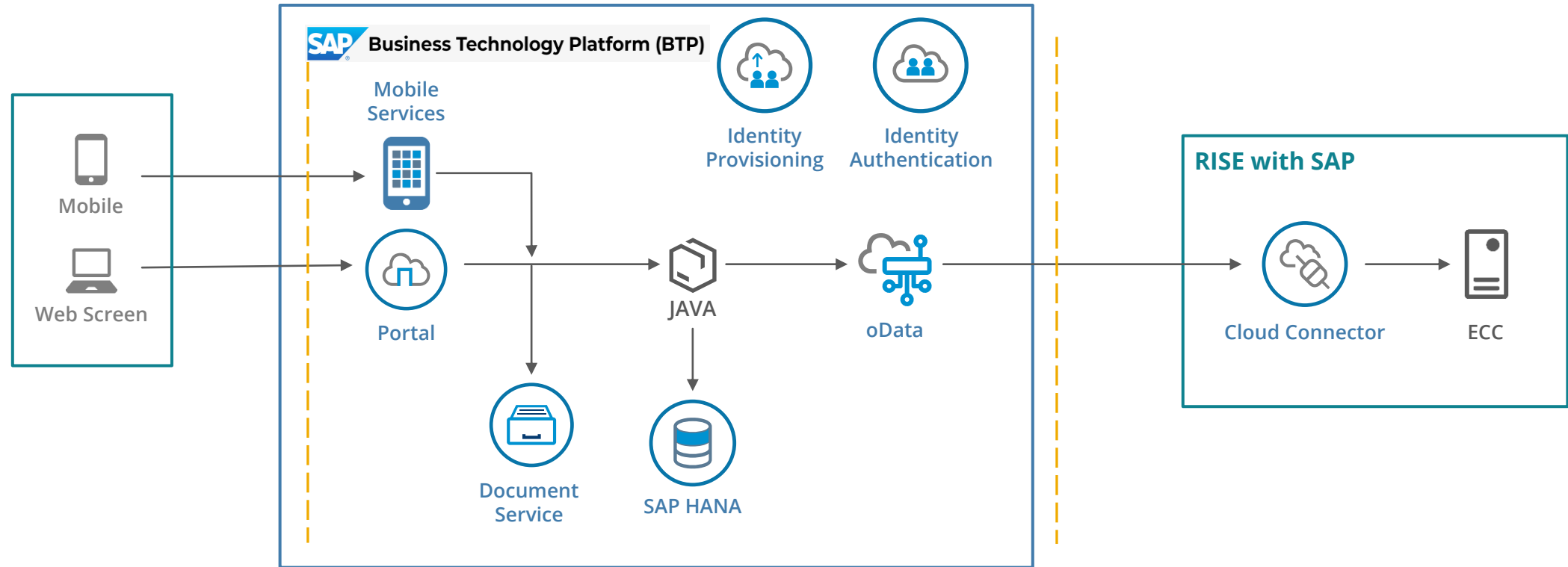
*Managing the full cycle of goods movements footprint from the creation until delivery has enabled our logistics team with the ability to improve our utilization level and traceability of all our dispatched shipments. On behalf of my team, I would like to thank all contributors to achieving this project.*

**Ali Nassar**, Manager, Supply Chain

**Mohamed Shawish**, Warehouse Manager



# Architecture



# Deployment Details 1 of 3



**Deployment status** LIVE

**Number of end users** 75

**Date** 23.March.2022

**Transaction Volume** +3K shipments per month, 10K records per month

## SAP® technologies used:

	SAP product	Deployment status <small>LIVE / POC</small>	Contribution to project
1	SAP AppGyver	Live	No code low code delivery
2	SAP Work Zone	Live	Simplified approval process
3	SAP BTP	Live	SAP Business Application Studio, SAP Mobile Services, SAP Launchpad Service, SAP CPI ,SAP Workflow Management & API Management

# Deployment Details 2 of 3



## Solution/App details developed on SAP BTP

The following [SAP Business Technology \(BTP\) Solutions](#) are part of the project:

	Technology	SAP BTP Solution (list Cloud Products only)	Contribution to project
1	Application Development and Automation	SAP Business Application Studio, SAP Mobile Services, SAP Launchpad Service, Application SAP BTP, SAP BTP SDK for iOS, SAP BTP SDK for Android, SAP Process Automation, SAP Workflow Management	BAS, Launchpad services, Mobile services, CAPM, SDK for iOS
2	Extended Planning and Analysis	SAP Analytics Cloud	Dashboards for management
3	Data and Analytics	SAP HANA Cloud, SAP Data Intelligence, SAP Analytics Cloud, SAP Master Data Governance Cloud	HANA cloud
4	Integration	SAP Integration Suite, SAP Integration Suite, advanced event mesh, SAP Data Intelligence Cloud	BTP CF Integration Suite
5	Artificial Intelligence	SAP AI Business Services, SAP AI Core, SAP AI Launchpad, SAP Conversational AI	For future enhancements

Listed on SAP Store

Yes

[https://store.sap.com/dcp/en/product/display-0000058036\\_live\\_v1#!overview](https://store.sap.com/dcp/en/product/display-0000058036_live_v1#!overview)

Monetized (sold to your customers)

Yes

Number of customers using the solution/app

Co-innovation with SAP

No

# Deployment Details 3 of 3

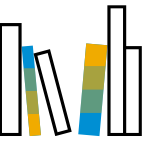


The following offerings from SAP Services and Support and other packages were utilized during the implementation or deployment phase:

- SAP MaxAttention™
- SAP ActiveAttention™
- SAP Business Journeys
- Embedded Launch Activities
- Learning Success
- Other:
- SAP Preferred Success
- SAP Preferred Care, on-premise
- SAP Enterprise Support
- Project Success
- RISE with SAP
- Managed Business Services
- Cloud Application Services
- Activation and Optimization Services
- Partner Success

## Contribution to the project

SAP Services supported in provisioning the right services and sizing for RISE with SAP and BTP. Quick turn-around times by SAP personnel have contributed to the on-time go-live of the Proof of Delivery Application and migrating to RISE with SAP.



# Additional Information

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alfanar has created a team specialist helping organization to build a digital transformation roadmap and kept innovation as first priority with business managers to enhance business transformations.

Innovation is providing our business the capability to build better customer journey.

Innovation plays a key role in introducing novelty to existing product lines or processes, leading to increased market share, revenue, and customer satisfaction.

Future plan:

- Extending the PoD across all logistics execution of sales channels, as of now we are handling +3000 shipments it will reach to +4000 shipment / month
- Activate integration with 3PL (Third Party Logistics) service providers and external shipment companies
- Route optimization
- Automation of the process related to warehouse management
- Rollout Same solution to alfanar subsidiaries