

# OPERATION DIGITAL BUTTERFLY



Scenario:  
**Logistics Service Provider**

Version: 1.1

Developed by:

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Based on Operation Digital Ant:  
<https://github.com/NutriSafe-DLT/operation-digital-ant>



**LIONS**

funded by



Branch  
Store  
(Retailer)



Consumer



## Organization Information

- All computers are equipped with the typical office applications including email client
- The mail server is hosted in the cloud by a service provider

## Truck

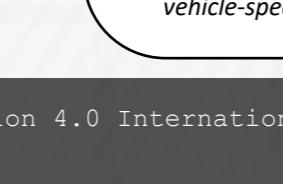
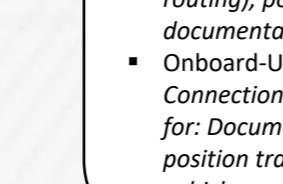
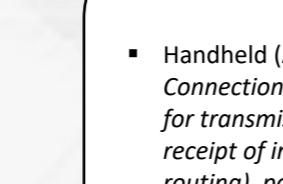
- Handheld (Android)  
Connection to forwarding software for transmission of shipment status, receipt of instructions (e.g. re-routing), position tracking, documentation
- Onboard-Units (UMTS)  
Connection to Telematics Software for: Documentation of the route, position tracking, documentation of vehicle-specific information

## FLEET

Logistics  
Service  
Provider

Central  
Warehouse  
(Retailer)

Dairy



WAREHOUSE

OFFICE

## Warehouse Area

- Long term storage
- High bay storage
- Multiple handheld scanners Connection to Warehouse Management Software, Forwarding Software and Transhipment Software

## Handling

- Preparation of the shipping documents (shipper, recipient, carrier, deadlines, nature of the goods) for the drivers

- PC
  - Document Management System Client
  - Forwarding Software Client
  - Warehouse Management Software Client
  - Transhipment Software Client
  - Multifunction Printer
  - Telephone

## Disposition and Service

- Accepting orders, disposition of shipments to the individual trucks and service (appointments, customer complaints, time delays, ...)

- PC
  - Document Management System Client
  - Forwarding Software Client
  - Warehouse Management Software Client
  - Transhipment Software Client
  - Telematics Software Client
  - Printer / Scanner
  - Telephone

## Management and Sales

- PC
  - Accounting Software Client
  - Document Management System Client
  - Forwarding Software Client
  - Multifunction Printer
  - Telephone

## Insurance and Pallets

- Claims handling (transport and storage damage) and tracking of pallet movement (pallet exchange accounts)

- PC
  - Document Management Software Client
  - Forwarding Software Client
  - Warehouse Management Software Client
  - Printer / Scanner
  - Telephone

## Multifunction Printer

## Storage

## Kitchen / Recreation room

## Accounting and HR

- PC
  - Document Management Software Client
  - Forwarding Software Client
  - Warehouse Management Software Client
  - Accounting Software Client
  - Printer / Scanner
  - Telephone

## IT Administration

- PC
  - Administration Tools
  - Printer / Scanner
  - Telephone

## Server Room

- Server
  - Forwarding Software
    - Route and shipment planning
    - Warehouse Management Software
    - Transhipment Software
  - Telematics Software
    - Management of storage spaces in the transhipment area with assignment of goods
    - Position tracking and analysis of driving data from the onboard units, documentation of vehicle data
  - Document Management Software
    - Versioned and structured document storage
    - Accounting Software
      - Payroll accounting, financial accounting
  - Middleware
    - File format conversion for import from external systems or export to external systems (shipment and customer information)
  - Telephone System
  - Fileserver
    - Backup-Storage (24h interval)

Communication and data synchronization between the server systems



## Warehouse Office

Warehouse manager's and fleet manager's office

- PC (Warehouse Manager)
  - Warehouse Management Software Client
  - Forwarding Software Client
  - Transhipment Software Client
- PC (Fleet Manager)
  - Forwarding Software Client
  - Telematics Software Client

## Transhipment Area

Short term storage (up to 8 hours)

- 2 PCs (at the gates)
  - Warehouse Management Software Client
    - limited access: read quantity, location, etc.
  - Forwarding Software Client
    - limited access: reading morphological data (measurements and weight) and tours documentation of damages (initial recording)
  - Transhipment Software Client
    - limited access: target location / current location in the transhipment area



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