Dimaps Orchestra: The Intelligent Data Platform For Streamlining And Connecting Your Logistics Systems

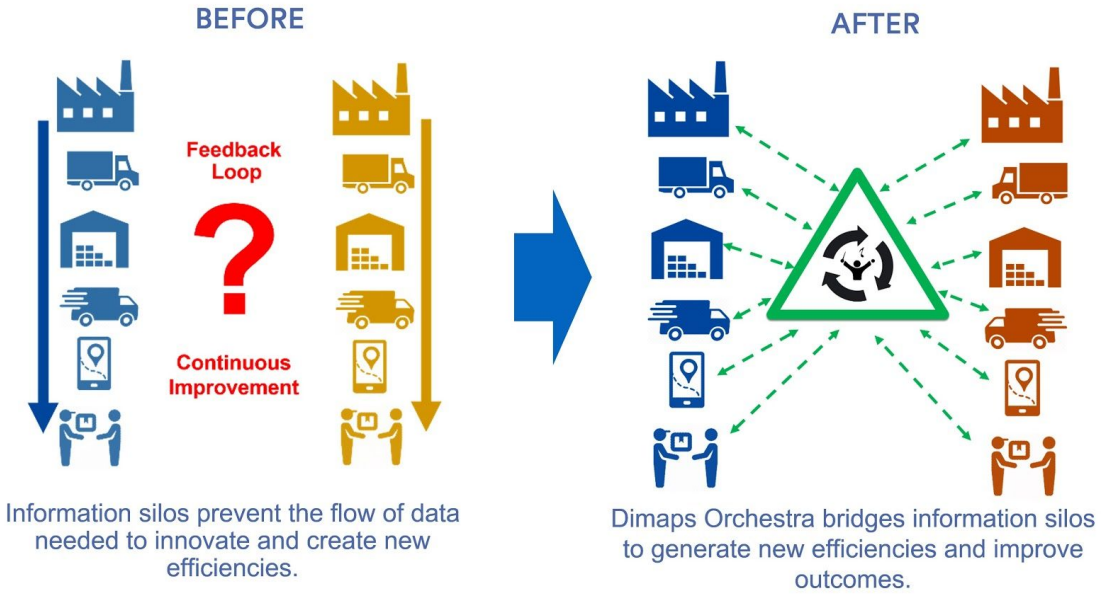
Dimaps Orchestra is an open, intelligent data platform that connects existing logistics systems across the enterprise. Orchestra bridges information silos by importing live and historical delivery data from across the supply chain into a real-time database to generate new efficiencies and a continuous improvement cycle. Dimaps Orchestra can connect information silos across your enterprise to create savings and harmony.

The Problem: Information silos arise as a result of data being isolated in systems that are separated across different departments and organizational levels. Information silos can result in a variety of problems, such as:

- Duplication of effort,
- Lack of organisational synergy, and
- Missed business opportunities.

Logistics information silos across the supply chain prevent the flow of data needed to innovate and improve last meter delivery. Given the critical role of supply chains, information silos can put a business at risk with outcomes that include late or missed deliveries leading to customer complaints, lost business and low employee morale. The strategic goal is to open the flow of information from silos to enable the sharing of critical inter-enterprise data and create new efficiencies.

The Solution: Dimaps Orchestra is engineered to address the challenges of logistics information silos. Orchestra is an intelligent data integration platform that opens information silos to enable data-sharing between logistics systems.



Bridging Silos. Orchestra bridges information silos by importing live and historical delivery data from across the supply chain into a real-time database to generate new efficiencies and a continuous improvement cycle. Orchestra integrates logistics data with *Dimap Precision Geographic Information System* (*GIS*) and the *Dimpro Protocol* to produce *precise* last meter delivery information based on enhanced map overlays combined with driver insights and customer requirements.

Dimaps Precision combines address data and existing GIS data layers (such as official government geological survey data, Google and Bing aerial images) to which vital local intelligence and delivery information can be added.

Dimpro Protocol is both a set of functions and a defined file format acting as a communications protocol between existing logistics systems and Dimaps Precision. Converters act as *go-betweens* for external logistics systems and the Dimpro Protocol. As a quick start, all that is needed is a simple ASCII file which is easily created using Notepad or Excel. In essence, Dimpro takes out the complexities of getting various systems to work together. Dimaps can customize converters in order to interface with existing infrastructure, e.g. ERP-systems, Logistics, etc.

Dimpro Protocol functions include:

- ✔ **CHECK** – Online check of delivery status on a specific household
- ✔ **START** – Recurring delivery order. Used for deliveries under subscription.

- ✔ **STOP** – Stop recurring delivery order.
- ✔ **PARCEL** – Single pickup or delivery.
- ✔ **SPCDEL** – Special delivery for quality improvement based on earlier complaints.
- ✔ **COMPLAINT** – Complaint from customer or driver.
- ✔ **COMPLAINTS** – Explanation of complaint & how the problem is resolved.
- ✔ **ROUTEPUB** – Definition of allowed products on specific routes.
- ✔ **DELAY** – Send out access and delivery problems.
- ✔ **PACKAGE** – Detailed delivery/packing order to driver, carrier, warehouse, etc.

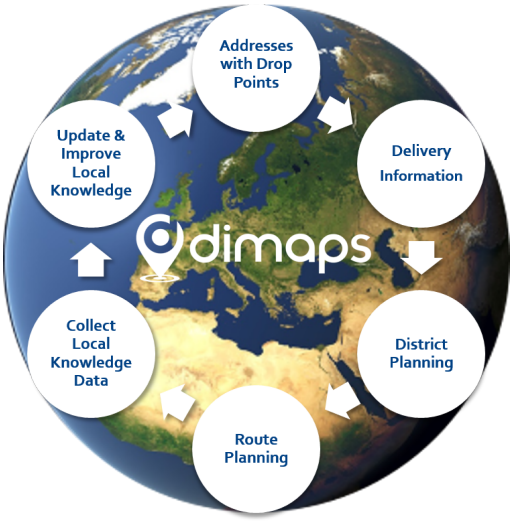
Dimaps Open Platform

All Dimaps software is architected as a cloud-based open platform that integrates with systems and silos via the following methods:

- REST
- Web
- SOAP
- "Flat files"
- MQ
- FTP
- ODBC to Dimaps Precision GIS Database
- SMS/Text (using templates or content analysis)
- Email (using templates or content analysis)

Dimaps Precision and Dimpro Protocol are the key components of Orchestra.

The Dimaps Precision database captures these structured and variable data fields to create a real-world view of the last mile all the way to a successful and repeatable delivery:



★ **Address** – Number (and/or letter), Multiple Dwelling Buildings, Staircases, and/or House names (house names are typically used in rural areas).

★ **Address history** – Old address data when house number or road names change. A request to an old address is automatically changed to the new address.

★ **Address info** – Renter or Householder?

★ **Areas** – Collection of addresses in logical districts, routes etc. 'Areas' can be linked to levels of service (1 hour, same day, etc.).

★ **Delivery** – Delivery types and position for addresses.

★ **Household** – Name, delivery preferences, phone number, door, level, apartment etc.

- ★ **Household info** –Such as 'do not call' lists.
- ★ **Road** – Surface, terrain, distance, hazards etc.
- ★ **Road changes** – Permanent or temporary road conditions. Examples: Roadwork, flooding, or closures (Incorporating existing traffic data).
- ★ **Key/Access-Management** – Handling of keys and access codes to customers.
- ★ **Production** – District planning, Carriers, Workload etc. per day with delivery papers (or on Smart Device), packing lists etc.
- ★ **Fleet management** – Truck delivery, delivery times, mileage

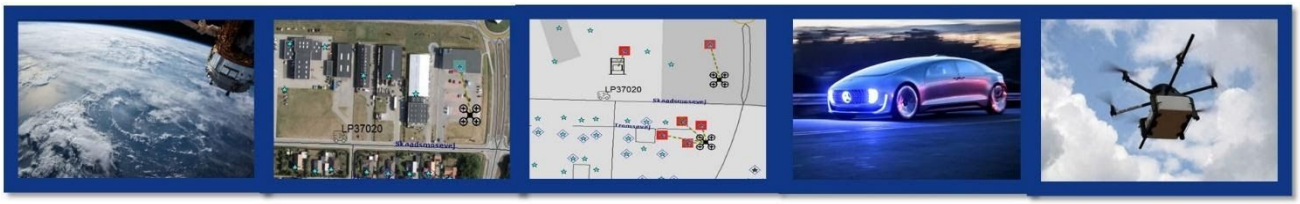
GIS data are kept in logistic groups (or collections) based on the purpose of delivery such as variable conditions during night versus daytime deliveries.

Last Meter Precision. Dimaps Orchestra enables drivers to complete deliveries (or collections) more efficiently - eliminating the need for multiple delivery attempts that are too often the result with current GPS devices and smartphones.

Orchestra continuously improves delivery and routing information by incorporating actual delivery experiences and interpreting customer complaints. A Dimaps planning tool can also be used to add new routes, roads, addresses, households, and detailed delivery information with precise positioning.

Mapping the Future of Precision Delivery

Dimaps was founded in Denmark in 2005 by experts with more than 20 years experience working on logistics challenges and GIS solutions. In addition to Orchestra and other innovations, Dimaps is at the heart of emerging technologies. Dimaps' expertise is assisting with autonomous vehicle development. Dimaps engineers are also working with the National Drone Centre in Denmark developing FAA-approved flight plans for drones in remote and rural areas. Dimaps continues to explore new opportunities that map the future of commercial navigation technology.



We would welcome the opportunity to show you how Dimaps Orchestra can bridge information silos across your enterprise to create savings and harmony. Visit us on the web at www.dimaps.com and request a free consultation for your business.