

Solution Brief

SAP Waste and Recycling, cloud edition
by PROLOGA

Route planning becomes increasingly complex, while it is getting harder to acquire experienced personnel on the market. Therefore, automated route planning incorporating key restrictions and challenges is essential to minimize manual planning effort.

AUTOMATED ROUTE PLANNING FOR ORDER DISPOSITION

PLAN LOGISTICAL PROCESSES IN AN AUTOMATED AND CENTRALIZED WAY

The challenge

Without a doubt, route planning is a complex task. An isolated view on capacity, costs and legal requirements is not leading to an optimal result. It therefore is essential to consider them holistically. However, finding qualified staff is becoming harder. The limited local knowledge of districts to be planned makes centralized planning inefficient while pressure rises to improve competitiveness. In addition to that, a growing number of bans on Diesel-powered vehicles is making route planning more difficult. And further challenges like planning routes for electric or hydrogen vehicles are just on the doorstep.

The possibility

This is where SAP Waste and Recycling, cloud edition by PROLOGA can help you to make a significant step ahead: The automated route planning minimizes the manual effort on the planning process, enables its centralization and optimizes the planning scenarios.

The disposition

The automated route planning can work easily across different disposing types as well as many depots and plants. It can handle specific opening hours as well as different departure and arrival times of the vehicles.

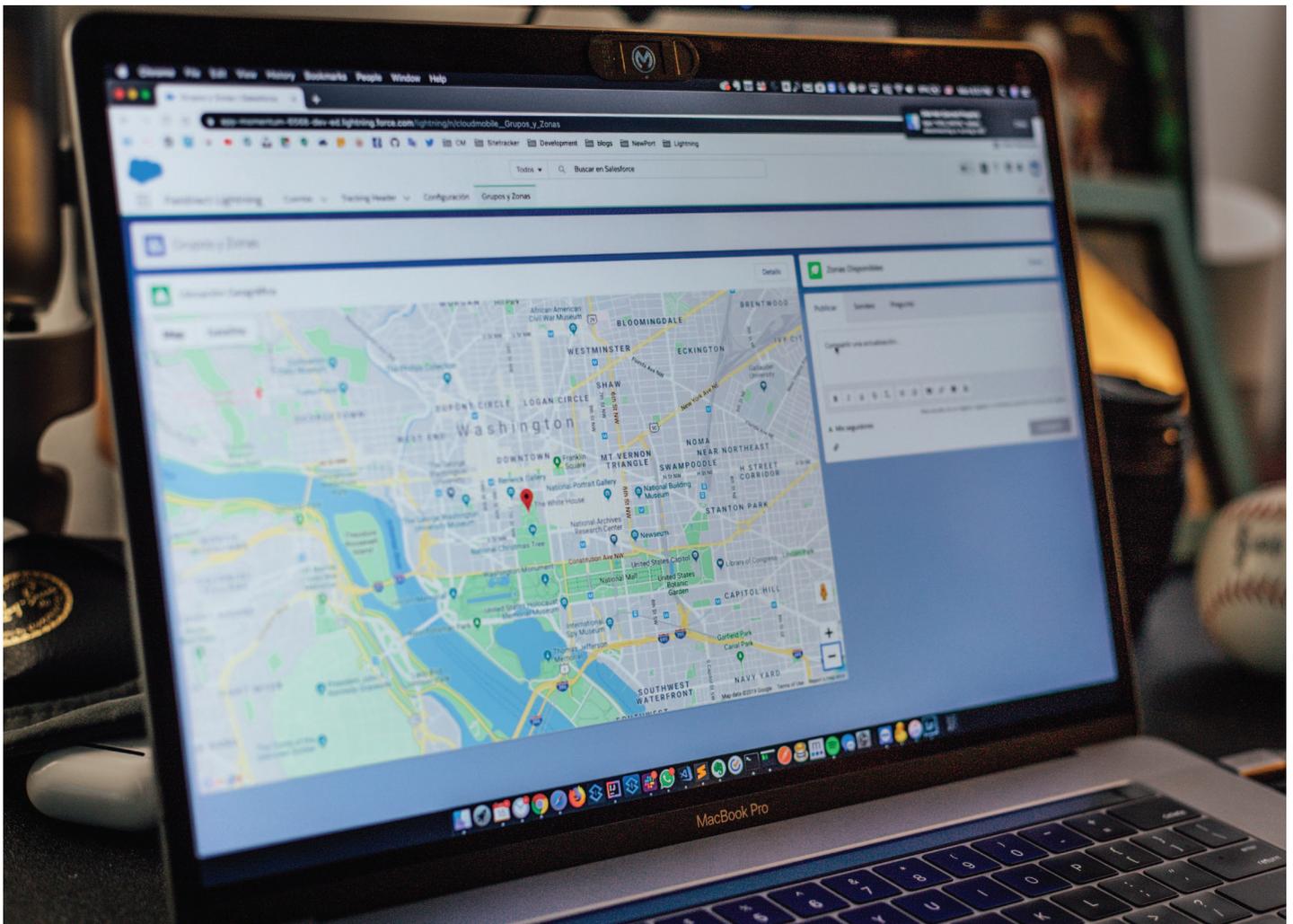
Above all, the following key factors are considered:

- Available personnel and vehicles
- Vehicle payload
- Geographical data (e.g. position of depots and plants)
- Commercial data (e.g. costs of personnel and vehicles including costs of overtime hours and unloading costs for each plant)
- Logistical data (e.g. distance and driving time)
- Regulatory data (e.g. maximum driving time, maximum working time)

Choosing the best possible route

The algorithm is able to calculate the best plant option based on costs for unloading and cost of cartage and chooses the appropriate plant for the route. Taking all the mentioned data into account the algorithm creates route planning scenarios heuristically and the planner decides which scenario to choose. A digital map provides full transparency for the calculated planning scenarios.





The implementation

SAP Waste and Recycling, cloud edition by PROLOGA is a cloud service providing you with an automated route planning for a commercial route collection scenario. There are no further costs of installing or running hardware attached as you only pay per planned route. It is recommended to use SAP® S/4HANA with the extension SAP S/4HANA for waste and recycling by PROLOGA 1809 as source system for master data and order data.

However, the required data can also be imported via a predefined interface from any other system into the cloud. The service can easily be accessed via the user friendly front end of SAP UI5 Apps in the SAP cloud platform.

Optimized routes and effective use of vehicles and staff: the automated route planning make improvements in efficiency possible.

Summary

Route planning is a central process in handling logistical operations. SAP Waste and Recycling, cloud edition by PROLOGA is an ideal tool to plan your orders. Integrated into the key processes of your company you can automate the planning to work off your orders, allocate resources to each order and balance your capacity utilization.

Business Challenges

- Manage different planning requirements for recurring orders and single customer orders with low processing time
- Compliance with growing number of legal requirements at municipal, federal, national and international level
- Automatically create practical plans for service delivery

Key Features

- Automated creation of reliable planning results through minimal use of resources
- Direct and automated allocation of orders to vehicles for improved route planning
- Automated calculation of different planning scenarios to identify the optimal use case scenario

Business Benefits

- Reduce planning costs through minimal manual effort to process planning
- Gain efficiency on daily route planning due to fast calculation of best route
- Reduce costs through optimized use of vehicles and staff
- Save driving time and journey time by planning across multiple plants

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Weitere Informationen

To learn more about SAP Waste and Recycling, cloud edition by PROLOGA and the opportunities this application presents for your company, please contact SAP representative or visit us online www.sap.com.

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