



PRESS RELEASE

#SwarmLogistics #SmartLogistics #DApp #Blockchain #DLT #DALO #MachineEconomy
#AutoDispatcher #RoboManager #SwarmIntelligence #AI

Proof of Concept validates Swarm Logistics system.

(Stuttgart, Germany in August, 2019). Swarm Logistics GmbH has carried out a proof of concept (PoC) with Arealcontrol GmbH (telematics company) and a transportation company in order to validate parts of the Swarm Logistics software.

A part of the **Business Operating System (B.O.S.)**, the **Auto-Dispatcher**, an automated dispatching and scheduling software, was tested with historical data from the partners and compared to previous planning. Cost-, freight-, vehicle- and employee-data were exported from the transport management system (TMS) of the transportation company. For the **complex initial tours** in the beginning of the day the system delivered by a mouse click in less than **30 minutes** a complete schedule and plan for the day. This includes detailed tour plans (including cost calculations, tolls, expected arrival times, profit estimations) for all vehicles and detailed routing that could be exported to a navigation system. The 30 heavy trucks had multiple pick up 'n delivery points in germanwide main runs with time windows. Ad hoc or dynamic fleet control are no problem with the chosen optimization basis and allow for automated, near-real-time decision making on additional freight orders.

The results of the comparison showed **cost savings of 25% and 35% faster delivery** for the transportation company. The time for planning was reduced by 3-5 hours a day for the dispatcher. Extrapolated the transportation company with 30 heavy trucks can **save 2400 EUR per vehicle per month or approx. 850,000 EUR per year** due to better planning with the Swarm Logistics system. Although the main run/ long haul with homogeneous vehicles is the simplest use case, massive savings could be achieved. The true strength of the Swarm Logistics system lies in significantly more complex use cases, such as distribution delivery or CEP with heterogeneous vehicle structures and dynamic, more complex tours. These use cases will be addressed in standalone PoCs; *Savings of up to 45% are expected here.*

In addition, the **technological basis for a self-organizing logistics** was tested. Due to the evaluation of freights by each single vehicle, an autonomous coordination between (even competing) vehicles is possible. The technological basis for the optimization of the Swarm Logistics system originates in the control environment and thus it is validated that the chosen approach works also in a planning environment. Swarm Logistics has created an integrated system that combines the control and planning levels for logistics companies; **It thus represents a complementary technology to autonomous commercial vehicles, when both are combined it enables autonomous delivery.**

Due to its architecture, the **Swarm Logistics system** can be **operated** as a stand-alone product for individual users and also in the form of an **DApp on a decentralized ledger technology, such as: Blockchain.**

In addition, the PoC showed potential improvements in the system architecture, which will contribute to a drastic increase in performance.

The Proof of Concept can be considered a great success and an important milestone.

The vision of **Swarm Logistics** as part of the **Machine Economy**, in which vehicles accept freight orders completely autonomously from digital freight exchanges, redistribute them to vehicles from competing fleets in trans-shipments and thus coordinate themselves completely autonomously, is thus not far away.

About Swarm Logistics GmbH

Swarm Logistics GmbH is a deep tech software technology company specializing in the development of intelligent, autonomous transportation systems.

The company creates software technology to enable the world's first "decentralized autonomous logistics organization"(DALO) with a peer-to-peer coordination of heterogeneous fleets with trucks, autonomous vehicles, AGVs & delivery robots in open environments.

Swarm Logistics - run by machines, based on blockchain and powered by AI.

Do you have any questions, or need further information? For the full 38 pages long report please contact us.

Damir Dulovic
CEO of Swarm Logistics
Tel.: +49 / (0)711/ 54 046 403
E-mail: info@swarmlogistics.net
www.swarmlogistics.net

Head office
Swarm Logistics GmbH
Koenigstr. 22, 4th Floor
Marquardt Building
70173 Stuttgart, Germany