
Booking of loading/unloading areas

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Abstract

City distribution usually requires vehicles to temporarily stop at roadside to allow for the driver to perform the last leg of the delivery by foot. The stops take place in designated areas, called loading/unloading (L/U) areas. In this chapter the introduction of a booking system for the management of the L/U areas in a city center is studied as a way to eliminate double parking. Two booking management systems and the arising routing problems are presented. The first booking management proposed is the one where distributors book in sequence, accounting for the reservations that have already been placed. The second considers a centralized system that collects all the required stops at L/U areas and finds a reservation for each distributor. The optimization problems arising in each of the two approaches are presented. The solutions provided by the two booking systems are discussed and compared with a representation of the current use of the L/U areas, where the distributors do not consider the availability of a parking spot and resort to double if none is available.

Keywords: Booking, loading and unloading, routing

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