Algorithm 2 S-conservative pseudo code.

```plaintext
1: if vehicle attached only to the 3G network then
2:   if (WLAN available) & (# hops ≤ t-hops-wlan) & (# attempts < 1) & (vehicle getting closer to the RSU) then
3:     vehicle attaches also to WLAN
4:     vehicle offloads best-effort traffic to WLAN
5:   end if
6: else
7:   if vehicle attached to 3G and WLAN then
8:     if (vehicle loses Internet connectivity via WLAN) then
9:       vehicle moves back offloaded traffic to 3G
10:    end if
11:  end if
12: end if
```

3 Performance evaluation

This section provides an experimental evaluation of SILVIO. The main aim of this evaluation is two-fold: i) to study the performance of the different modes of SILVIO (i.e., different algorithms for smart vehicular handover management) and compare them with a solution based the sole use of 3G, and ii) to understand the trade-offs of each of the SILVIO operating modes. We start by introducing the evaluation framework, since it is a very important piece of our work, and then we present and analyze the obtained results.

3.1 Evaluation framework

One of the biggest challenges that we have to face when doing research in the vehicular area is that validating and evaluating the performance of the designed mechanisms is usually very hard. On one hand, it usually requires involving a relatively high number of vehicles, making experimentation with real life prototypes deployed in cars quite unfeasible. Among the several vehicular testbeds that have been deployed in the last years, we can highlight the following: Cartel and Cabernet projects at MIT [25,26], Dome and DieselNet at Amherst [27], VanLan by Microsoft Research [28] and C-VeT at UCLA [29]. None of them meet