we explain the mechanism used by SILVIO to provide the capability of seamlessly moving traffic between interfaces, which is based on IP flow mobility extensions.

IP flow mobility refers to the movement of selected IP flows from one interface to another, of course minimizing the impact on the user experience. In order to do so, an IP mobility protocol should allow for the simultaneous use of different care-of addresses associated to the same home address. This feature must be able to selectively send packets addressed to the same node via different access networks (identified by its CoAs). Regular Mobile IPv6 and NEMO B.S. do not provide flow mobility, so to enable it, the IETF has standardized the basic components that are required. These components are: i) multiple care-of address registration support (standardized in the RFC 5648 [17]), ii) flow bindings support (standardized in RFC 6088 [18] to allow mobile routers to bind one or more IP flows to a specific care-of address), and iii) traffic selectors definition (standardized in RFC 6089 [19]).

So far we have described the tools required to provide in-vehicle devices with Internet connectivity using one primary access technology (e.g., 3G), and to selective and opportunistically offload part of the traffic to another secondary access technology. In SILVIO, this secondary technology is WLAN, with connectivity being provided via a multi-hop VANET. We next describe how this is done in SILVIO.