VCloud: A Security Framework for VANET

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Abstract : Vehicular Ad-hoc Network (VANET) is an integral component of Intelligent Transport Systems (ITS) that has enjoyed a lot of attention from the research community and the automotive industry. This is mainly due to the opportunities and challenges it presents. Vehicular Ad-hoc Network being a class of Mobile Ad-hoc Networks (MANET) has all the security concerns existing in traditional MANET as well as new security and privacy concerns introduced by the unique vehicular communication environment. This paper provides a survey of the possible attacks in vehicular environment, as well as security and privacy concerns in VANET. It also provides an insight into the development of a comprehensive cloud framework to provide a more robust and secured communication among vehicular nodes and road side units. Our proposal, a Metropolitan Based Public Interconnected Vehicular Cloud (MIVC) infrastructure seeks to provide a more reliable and secured vehicular communication network.