International Journal of Engineering Sciences Paradigms and Researches (IJESPR)
(Vol. 18, Issue 01) and (Publishing Month: December 2014)
(An Indexed, Referred and Impact Factor Journal)
ISSN (Online): 2319-6564
www.ijesonline.com

Abstract Details

Title: Modified EMAP Protocol in VANET

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Abstract: VEHICULAR ad hoc networks (VANETs) have attracted extensive attentions recently as a promising technology for revolutionizing the transportation systems and providing broadband communication services to vehicles. Since vehicles communicate through wireless channels, a variety of attacks such as injecting false information, modifying and replaying the disseminated messages can be easily launched. A well-recognized solution to secure VANETs is to deploy Public Key Infrastructure (PKI), and to use Certificate Revocation Lists (CRLs) for managing the revoked certificates. This research will enhance the security in the VANET. In VANET the vehicles communicate with each other, the communication message may be warning message or other private messages. The security mechanism will be implemented by using the CRL method. In the existing work CRL checking process is speed up by replacing the CRL check by the revocation check. Still the message authentication process uses the ECDSA method to verify the signature of the message. This process can be speed up by using the RSA but the space taken by RSA is more as compared to ECDSA. This method uses the RSA in place of the ECDSA to accelerate the process. The space utilization is enhanced by performing the certificate verification and message verification in single step. This would also enhance the speed resulting reduced delay.

Keywords: VANET, Security, CRL.