

Evaluation and Analysis of the Secure E-Voting Authentication Preparation Scheme

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Abstract : In this paper, we presented an evaluation and analysis of E-Voting Authentication Preparation Scheme (EV-APS). EV-APS applies some modified security aspects that enhance the security measures and adds a strong wall of protection, confidentiality, non-repudiation and authentication requirements. Some of these modified security aspects are Kerberos authentication protocol, PVID scheme, responder certificate validation, and the converted Ferguson e-cash protocol. Authentication and privacy requirements have been evaluated and proved. Authentication guaranteed only eligible and authorized voters were permitted to vote. Also, the privacy guaranteed that all votes will be kept secret. Evaluation and analysis of some of these security requirements have been given. These modified aspects will help in filtering the counter buffer from unauthorized votes by ensuring that only authorized voters are permitted to vote.

Keywords : e-voting preparation stage, blind signature protocol, Nonce based authentication scheme, Kerberos Authentication Protocol, pseudo voter identity scheme PVID

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