# Secure Digital Voting System based on Blockchain Technology

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**Abstract***: Since the 1970s, electronic voting, or e-voting, has been employed in a variety of forms and offers several advantages over paper-based systems, including more efficiency and fewer errors. Widespread acceptance of such systems is still difficult to accomplish, though, particularly when it comes to enhancing their resilience to potential flaws. Blockchain is a cutting-edge technology that has the potential to increase the general robustness of electronic voting systems. This paper outlines an attempt to use blockchain's advantages, namely its transparency and cryptographic underpinnings, to create a successful e-voting system. The suggested plan satisfies end-to-end verifiability and complies with the essential specifications for electronic voting systems. The suggested electronic voting system and its Multichain platform implementation are described in detail in this paper. The article provides thorough analysis of the plan that effectively shows how to create an end-to-end verified electronic voting system In summary: Since the 1970s, electronic voting, or e-voting, has been used in various forms. Its main advantages over paper-based systems include more efficiency and fewer errors. Widespread acceptance of such systems is still difficult to accomplish, though, particularly when it comes to enhancing their resilience to potential errors. Blockchain is a cutting-edge technology that has the potential to increase the general robustness of electronic voting systems. This study outlines an attempt to use blockchain's advantages—such as its transparency and cryptographic underpinnings—to create a successful electronic voting system. The suggested plan satisfies end-to-end verifiability and complies with the basic specifications for electronic voting systems*

**Keywords:** electronic voting, e-voting, blockchain, e-government, verifiable voting