

## ABSTRACT

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Implementation of network security by building Certificate Authority (CA) server based on the development of computer network which lies services such as Web servers, mail servers and other services that require security in the exchange of data so that the data is transmitted securely. Certificate Authority serves as a validation of the sender's email address or the email address of the recipient. Security with CA on this final project specializes in mail server. On the construction of the CA server using EJBCA (Enterprise Java Bean Certificate Authority). In the process making of this final project conducts method of literature study by searching for references related to CA server. After searching the reference followed by a design that will be used in the implementation and testing server CA. After designing the implementation phase and testing is done followed by making the final project report. The results of this final project will provide a CA server digital signature on a client who register their email account and encrypts the data that is sent via email.

*Keywords:* Certificate Authority, Enterprise Java Bean Certificate Authority.