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Data Security: An Enhancement of E-mail Security Algorithm to Secure Data Across State Owned Agencies

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Abstract : Over the decades, E-mails provide easy, fast and timely communication enabling businesses and state owned agencies to communicate with their stakeholders and with their own employees in real-time. Moreover, since the launch of Microsoft office 365 and many other clouds based E-mail services, many businesses have been migrating from the on premises E-mail services to the cloud and more precisely since the beginning of the Covid-19 pandemic, there has been a significant increase of E-mails utilization, which then leads to the increase of cyber-attacks. In that regard, E-mail security has become very important in the E-mail transportation to ensure that the E-mail gets to the recipient without the data integrity being compromised. The classification of the features to enhance E-mail security for further from the enhanced cyber-attacks as we are aware that since the technology is advancing so at the cyber-attacks. Therefore, in order to maximize the data integrity we need to also maximize security of the E-mails such as enhanced E-mail authentication. The successful enhancement of E-mail security in the future may lessen the frequency of information thefts via E-mails, resulting in the data of South African State-owned agencies not being compromised.

Keywords : e-mail security, cyber-attacks, data integrity, authentication
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