

SecureOS: A Docker based Security OS

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Abstract: *The following research paper discusses the architecture, reasoning of systems implementation and components placement, discussion of performance metrics of Virtual Machines and Docker Containers, and implementation strategies for this modern-day Operating System.*

This architecture is designed keeping two major goals in mind: security and ease of use. As we observe the rise of AI and its misuse in the field of Security, the need for a modern system that can expand and grow for decades to come while being able to safeguard the data of its users becomes more and more important.

The following architecture aims at establishing a foundation for this type of Operating System and also presents sufficient reasoning and proofs to be laid for this type of OS to be realised one day.

**The paper follows a What?, Why?, and Achieved pattern for its sections..*

Keywords: Docker, Virtual Machine, Architecture, Security, Security OS

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