encrypt

A scalable and practical privacy-preserving framework

Trusted Execution Environment (TEE)

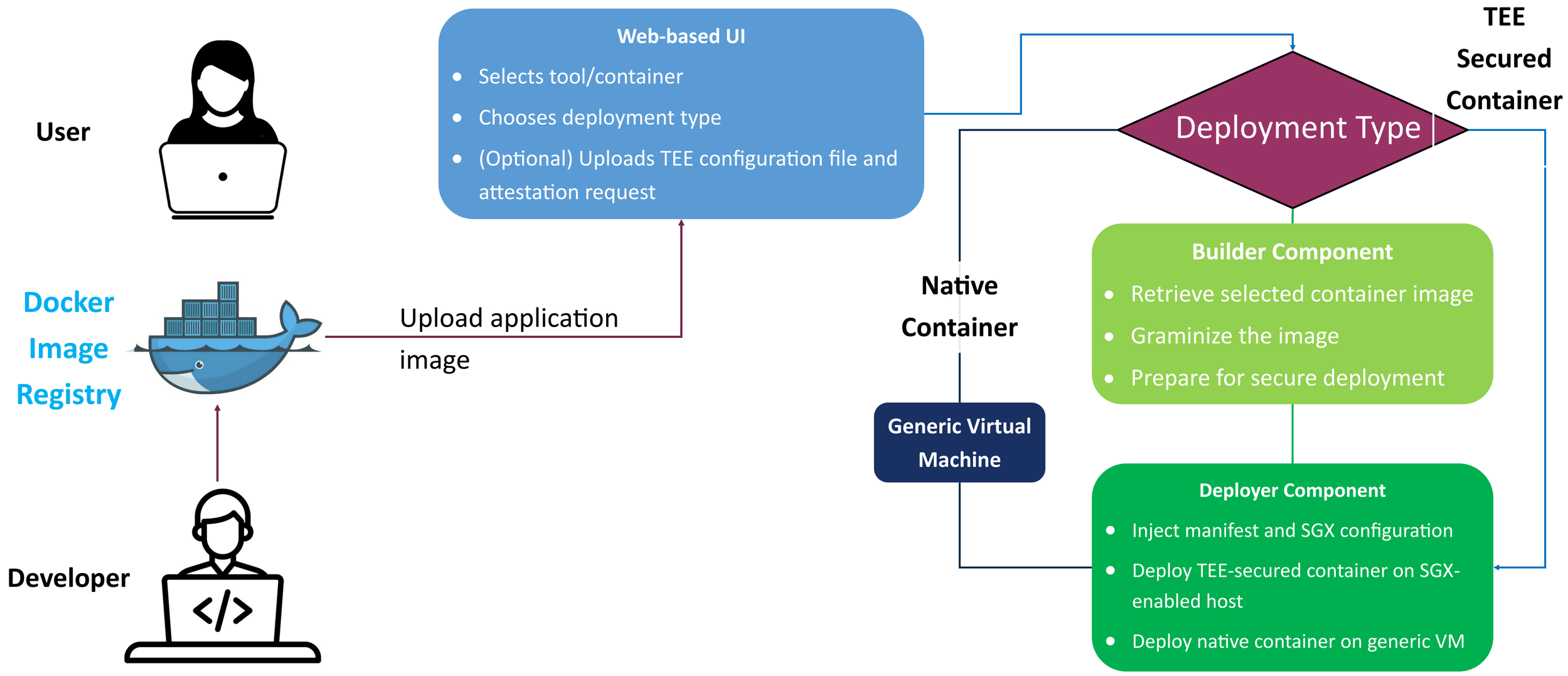
TEE-Based Privacy-Preserving Deployment in ENCRYPT

OBJECTIVES

- TEEs provide hardware-based security against privileged attackers
- Intel SGX enclaves ensure confidentiality and integrity of code/data, even with full system compromise
- ENCRYPT implements a container-based workflow for secure, privacy-preserving deployments in sensitive domains

Goal: Enable user-friendly, secure execution of tools via TEEs with minimal user burden

Type	Tech Used	Pros	Cons
Fair TEE	Gramine SGX runtime	Easy setup, no code changes	Larger TCB, lower security
High TEE	Intel SGX SDK	Smaller TCB, high isolation	Complex setup
Super TEE	SGX SDK + WebAssembly	Two-way sandboxing, full isolation	Resource-heavy



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