Notary: A Device for Secure Transaction Approval

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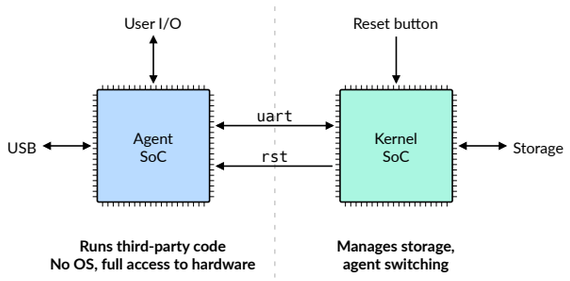
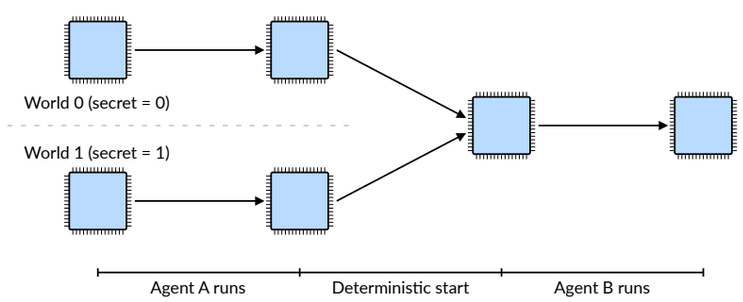
Existing hardware wallets support many apps,
but have weak isolation between agents.

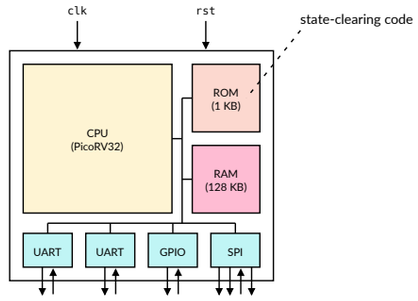
Notary's separation architecture provides isolation with **reset-based switching** to run agents one-at-a-time on a dedicated SoC.



Notary provides **non-interference** between agents with software that clears all internal SoC state between switches.



Notary **formally verifies the deterministic start property** by analyzing the SoC at the RTL level.



Deterministic start: all internal state is cleared after running for n cycles after reset.

$$\exists s_f \,.\, \forall s \,.\, \mathrm{run}(\mathrm{rst}(s), n) = s_f$$

We built Notary, a hardware wallet that provides strong isolation for transaction approval applications.

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