

Innovation & Business Exercise, IB4, SOLUTIONS

Enterprise Blockchain ROI, Do You Even Need a Blockchain?

Digital Finance, BSc Course

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Facilitator key | the gate usually says “no”, and that is the lesson

How to use this key. Most honest answers are “no blockchain”. Reward groups that stop at the first failed gate rather than reaching for the chain. Immutability alone is *not* a reason, a database with hashing or write-once storage gives tamper-evidence without a chain.

Scenario verdicts.

A, internal loan ledger: fails Q1 (single writer). ⇒ **central database.**

B, five rival banks, double-financing fear, no neutral operator: passes Q1–Q4 (multiple writers, mutual distrust, no trusted operator, need shared tamper-evident state). ⇒ **permissioned consortium chain**, the one case that clears the gate.

C, internal audit log: fails Q1 (single writer); tamper-evidence is achievable with a hashed / write-once database. ⇒ **central database.** Immutability is not the same as needing a blockchain.

	Line	Central DB	Private chain	Consortium
TCO read.	Build + per-party integration	Low	Medium	High
	Ongoing nodes / governance	Low	Medium	High
	Cross-party reconciliation & fraud savings	Low	Low	High

When the consortium pays. Only when the **cross-party reconciliation + fraud savings (High)** exceed the **High governance and node overhead**, *and* no neutral operator could have done the job. A **private** chain is usually the worst option, it carries chain overhead without the cross-party benefit that justifies it. That is why so many enterprise pilots quietly returned to a database.